

School Efficiency Review of Amherst County Public Schools



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of
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“Plans are worthless, but planning is everything.”

-Dwight D. Eisenhower



Table of Contents

1	Introduction	1-1
	A. Methodology	1-1
	B. Acknowledgements	1-3
	C. Report Organization	1-3
2	Divisional Administration.....	2-1
	A. Division Management.....	2-3
	B. Procedures	2-21
	C. Planning, Budgeting, and Evaluation	2-22
	D. Community and Parent Involvement	2-28
3	Educational Service Delivery.....	3-1
	A. Organization and Management	3-2
	B. School Administration and Decision-Making	3-7
	C. Curriculum Policies and Management	3-10
	D. Special Programs	3-15
4	Human Resources	4-1
	A. Organization and Management	4-7
	B. Policies and Procedures	4-17
	C. Recruitment, Hiring, and Retention.....	4-24
	D. Staff Development	4-29
	E. Compensation and Classification Systems	4-32
5	Facilities Use and Management.....	5-1
	A. Plans, Policies, and Procedures	5-7
	B. Maintenance Operations	5-16
	C. Custodial Operations	5-26
	D. Energy Management.....	5-29
	E. Security	5-35
6	Financial Management.....	6-1
	A. Organization, Management, and Staffing.....	6-6
	B. Financial Performance.....	6-10
	C. Planning and Budgeting	6-14
	D. Policies, Procedures, and Use of Administrative Technology	6-19
	E. Contracting Processes.....	6-26
7	Transportation.....	7-1
	A. Organization and Staffing.....	7-10
	B. Planning, Policies, and Procedures.....	7-14
	C. Routing and Scheduling.....	7-17
	D. Training and Safety.....	7-20
	E. Vehicle Maintenance and Bus Replacement Schedules	7-20

8	Technology Management	8-1
	A. Organization and Staffing.....	8-3
	B. Staff Development	8-7
	C. Instructional and Administrative Technology.....	8-10
	D. Technology Planning and Budgeting.....	8-15
	E. Technology Policies and Procedures	8-20
	F. Systems Infrastructure and Integration	8-23
	G. Technical Support and Help Desk Operations	8-28
9	Food Services	9-1
	A. Organization and Staffing.....	9-4
	B. Policies, Procedures, and Compliance.....	9-9
	C. Planning and Budgeting	9-10
	D. Management and Facility Operations	9-17
	E. Qualifying Students for Free and Reduced-Price Meals.....	9-21
	F. Student Participation.....	9-24
	G. Nutrition and Nutrition Education Programs	9-29
	H. Purchasing and Warehousing.....	9-33
	Appendix A – Peer Comparisons	A-1
	Appendix B – ACPS 2014 Capital Improvement Projects.....	B-1
	Appendix C – ACPS Energy Conservation Policy	C-1
	Appendix D – Sample Food Services Manual.....	D-1
	Appendix E – Recommendations and Commendations	E-1

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 schoolchildren. To date, 41 school efficiency reviews have been completed under this initiative.

The Virginia Department of Planning and Budget (the Department) contracted with Prismatic Services, Inc., in March 2013 to complete the 42nd school efficiency review, of Amherst County Public Schools (ACPS). This report is provided in fulfillment of that contract.

ACPS is located in Amherst County between Charlottesville and Lynchburg. The community is close to the Blue Ridge Parkway and the James River. It is also the home of Sweetbriar College and is close to several national civil war parks and monuments. The George Washington National Forest and the Shenandoah National Park are just a short distance from the county. The 2000 census reflected a county population of 31,854, and a 2010 update indicates a population of 32,353, reflecting a 1.4 percent growth. The 2000 census also indicated that 23.5 percent of the households had children under 18. In the fall of 2013-14, ACPS had a total enrollment of 4,291, which is roughly 13 percent of the county population.

A. Methodology

Prismatic used a 10-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 draft report.
7. Develop exposure draft and protocol checklist.
8. Develop final report.
9. Present report.

10. Submit concluding documents and close project.

Prismatic provided a team of nine consultants as well as clerical and technical staff. The project manager and one consultant completed the initial meeting and advance visit to the division April 9-11, 2014 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 April 27-May 2, 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 ACPS facilities were visited at least twice by a consulting team member. In total, the team completed 63 individual or joint interviews and 21 focus groups.

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 ACPS superintendent and approved by the Department based on cluster analysis that was completed by Virginia Commonwealth University (VCU) in 2013 through an agreement with the Virginia Department of Planning and Budget. VCU used variables to group "like" school divisions together based on size and wealth. The variables were average daily membership and population density (size) and eligibility for free/reduced-price lunch and the composite index of local ability to pay (wealth). The peers selected were:

- Caroline County;
- Carroll County;
- Dinwiddie County;
- Mecklenburg County;
- Pulaski County;
- Russell County;
- Smyth County; and
- Wythe County.

In addition, to address the concerns of some division and county leaders, five divisions located near ACPS were also included in some comparisons. These neighboring divisions were:

- Appomattox County;
- Bedford County;
- Campbell County;
- Lynchburg City; and
- Nelson County.

B. Acknowledgements

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

- Dr. Steven Nichols, Superintendent;
- Dr. Julie Rogers, assistant superintendent for human resources; and
- Ms. Teresa Crouch, chief financial officer.

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

C. Report Organization

All references to years in this report indicate schools years. For example, “2012-13” refers to the school year 2012-13, which ran from July through June. 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 delineated 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 administration functions of Amherst County Public Schools (ACPS) in the following sections:

- A. Division Management
- B. Procedures
- C. Planning, Budgeting, and Evaluation
- D. Community and Parent Involvement

The organization and management of a school division involves cooperation between elected members of the school board 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

ACPS is located in Amherst County (founded in 1761) between Charlottesville and Lynchburg, Virginia. The community is close to the Blue Ridge Parkway and the James River. It is also the home of Sweetbriar College and is close to several national civil war parks and monuments.

The 2000 census reflected a county population of 31,854 and a 2010 update indicates a population of 32,353, reflecting a 1.4 percent growth. The 2000 census also indicated that 23.5 percent of the households had children under 18. There are 11 schools in ACPS serving 4,526 students. The mission and goal statements for ACPS are as follows:

Mission:

Every Child, Every Day

Goals:

Student Achievement - ACPS shall appropriately motivate, educate, and inspire every student, every day to achieve his or her maximum academic potential.

Safety - ACPS shall provide a safe, courteous, and professional environment for all school activities.

Leadership - ACPS shall provide educational programs and opportunities that produce responsible citizens who are life-long learners and contributors to the community.

Communication - ACPS shall continue open lines of communication to enhance school, parent, and community collaboration.

Responsibility - ACPS shall be accountable to students, parents, and the community for student achievement, safety, leadership, and communication.

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

- ACPS has effective and efficient school board meetings. The relationship between the superintendent and the school board results in well-thought-out decisions.
- The superintendent has worked to focus the division on its primary mission, which is the delivery of quality instruction to all students.
- The superintendent, central office staff, and principals are commended for the collegiality and communication displayed as they work to serve the students of Amherst County.
- The school board and the superintendent have an effective process for maintaining and updating policies.

The consulting team also made 12 recommendations in this chapter:

- Improve usage of Pleasant View and Temperance Elementary Schools.
- Improve the central office organization.
- Study the existing positions and responsibilities in the instructional department and gradually add positions back as necessary and as the budget allows.
- Train a backup person for the PowerSchool student information system and provide the necessary training for both individuals.
- Study the overall staffing cuts made and their impact on workloads, and develop a prioritized list of what will be added back as funding becomes available.
- Encourage the electorate to vote on the issue of an elected versus an appointed school board.
- Continue to work on improving relations with the county board of supervisors.
- Develop a method of recording processes utilized in high value offices where single individuals hold all of the historical knowledge of how the work is done.
- Implement training for the school board on strategic planning, goal development, and program evaluation.
- Adopt a new style of strategic plan utilizing “SMART” goals and the balanced scorecard approach.
- Provide training in program evaluation for all central office directors and supervisors, principal and assistant principals, leadership teams, and teacher leaders.
- Develop strategies for enhancing parent involvement in ACPS.

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		2014-15	2015-16	2016-17	2017-18	2018-19	Total
2.3	Improve the central office structure.	(\$83,000)	(\$83,000)	(\$83,000)	(\$83,000)	(\$83,000)	(\$415,000)
2.5	Train a backup person for PowerSchool.	(\$6,500)	(\$3,500)	(\$1,500)	(\$1,500)	(\$1,500)	(\$14,500)
2.15	Train in evaluating programs.	(\$2,000)	(\$0)	(\$0)	(\$0)	(\$0)	(\$2,000)

A. Division Management

Virginia state education laws, as codified by the Code of Virginia and executed through 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 Code 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, appointment or election of school boards, and § 22.1-76 provides a description of the required school board officers.

The ACPS board consists of seven appointed members (**Exhibit 2.1**). The current ACPS school board members are appointed by the county board of supervisors. The county board determines the number of school board members and each is appointed for a four-year term of office. The county board of supervisors may also appoint a county resident to be the tiebreaker vote if necessary.¹

Exhibit 2.1
ACPS appointed school board

School Board	Region	Location	Term
Stanley Jones – Chairman	District 3	Monroe	2006-2014
Elizabeth Gamble – Vice Chairperson	District 2	Amherst	2005-2015
Patricia Massie	At-Large	Monroe	2012-2016
Margaret Morton	District 1	Amherst	2006-2014
Priscilla Ligon	District 4	Madison Heights	1999-2015
Randy Summers	District 5	Madison Heights	2013-2017
Alan Wood	At-Large	Madison Heights	2012-2016

Source: Compiled by Prismatic, 2014.

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 ACPS superintendent, Dr. Steven Nichols, has a doctorate in curriculum and instruction and

¹ 22.1-47. Composition of boards; appointment and terms; tiebreakers. Chapter 4 (§ 15.2-400 et seq.) of Title 15.2 shall select their school board as provided in § 15.2-410 as amended.

40 years of experience in schools. He has served in a variety of positions across many divisions of different sizes. He has been a teacher, principal, central office administrator, and director of instruction. He has served as superintendent in three different Virginia divisions for a total of five years. Dr. Nichols has been described consistently by ACPS staff in interviews and focus groups as personable, energetic, and well organized. He is currently involved in the visiting scholar program at Oxford University in Oxford, England.

FINDING 2.1

The ACPS school board and superintendent have developed a smooth process for conducting school division business. The ACPS board meets on the second and fourth Thursdays of the month at 6:00 pm in the school administration office building. Regular meetings are followed by student disciplinary hearings when necessary. The meeting place and time may be changed by agreement of a majority of the board members.

Special meetings are held as needed, and board members receive agendas and any supporting information in advance. The division's chief financial officer serves as the clerk and takes the board minutes. The prepared minutes are then brought to the next regularly scheduled meeting for final approval by the board. School board meeting information is posted online using BoardDocs software. Meeting notices are also posted in a display case at the school administrative offices. Historical data are available regarding agendas and back to 2005. The school board agenda provides two different opportunities for the public to speak during the meeting.

The school board receives frequent reports from ACPS staff and the school board often has students introduced who have celebrated special accomplishments. Policy review is conducted regularly.

COMMENDATION

ACPS has effective and efficient school board meetings. The relationship between the superintendent and the school board results in well-thought-out decisions.

FINDING 2.2

Pleasant View and Temperance Elementary Schools are significantly under capacity and have been proposed as candidates for closure without benefit of an in-depth examination of closure consequences. According to fall 2013 data, Pleasant View and Temperance Elementary Schools have average daily memberships of enrollments of 70 and 85 students, respectively, in grades K-5. Both schools have an identical capacity of 136 students. This leaves Pleasant View with a capacity deficit of 66 students and Temperance with 51 students under capacity.

In nearly every interview with division administrators, the question of how to handle these small schools was raised. Many offered the opinion that the small schools are simply too expensive to operate. However, looking solely at personnel costs, the operation of Pleasant View and Temperance are not out of line with the per student costs in other ACPS elementary schools. As shown in **Exhibit 2.2**, per pupil personnel costs at Pleasant View and Temperance are above the average for the elementary schools, but they are not the highest. **Exhibit 2.3** Compares pupil-teacher ratios. Again, while Pleasant View and Temperance are on the low side in this comparison, they are not the lowest.

Exhibit 2.2
Comparison of elementary personnel costs, 2012-13

School	ADM	Personnel Costs	Per Pupil Costs
Amelon ES	441	\$ 3,827,327	\$ 8,679
Amherst ES	307	\$ 2,732,735	\$ 8,901
Central ES	228	\$ 3,369,783	\$ 14,780
Elon ES	266	\$ 2,600,871	\$ 9,778
Madison Heights ES	434	\$ 5,516,203	\$ 12,710
Pleasant View ES	69	\$ 809,909	\$ 11,738
Temperance ES	76	\$ 881,159	\$ 11,594
Average			\$ 10,839

Source: ACPS data and Prismatic calculations, 2014.

Exhibit 2.3
Comparison of pupil to teacher ratios, 2012-13

School	ADM	# of Teachers	Pupil : Teacher Ratio
Amelon ES	441	42	10.5
Amherst ES	307	31	9.9
Central ES	228	32	7.1
Elon ES	266	27	9.9
Madison Heights ES	434	40	10.9
Pleasant View ES	69	8	8.6
Temperance ES	76	9	8.4
Average			9.3

Source: ACPS data and Prismatic calculations, 2014.

Based on visual observations by the consulting team, both schools are in good to excellent overall condition. **Exhibit 2.4** shows exterior views of the facades of Temperance and Pleasant View elementary schools. They also seem to be the only major community facilities available to the residents in these relatively remote areas of Amherst County.

Exhibit 2.4

Temperance Elementary School

Pleasant View Elementary School



Source: Prismatic, April 2014.

While ACPS is not growing rapidly, it does not appear to be in a period of enrollment decline. Based on the five-year projection data provided by the Demographics & Workforce Section of University of Virginia’s Weldon Cooper Center, ACPS should see enrollment increases in several elementary and middle school grades, with the only consistent decreases occurring at the high school level (**Exhibits 2.5 and 2.6**). Overall, ACPS is expected to see relatively stable enrollment over the next five years.

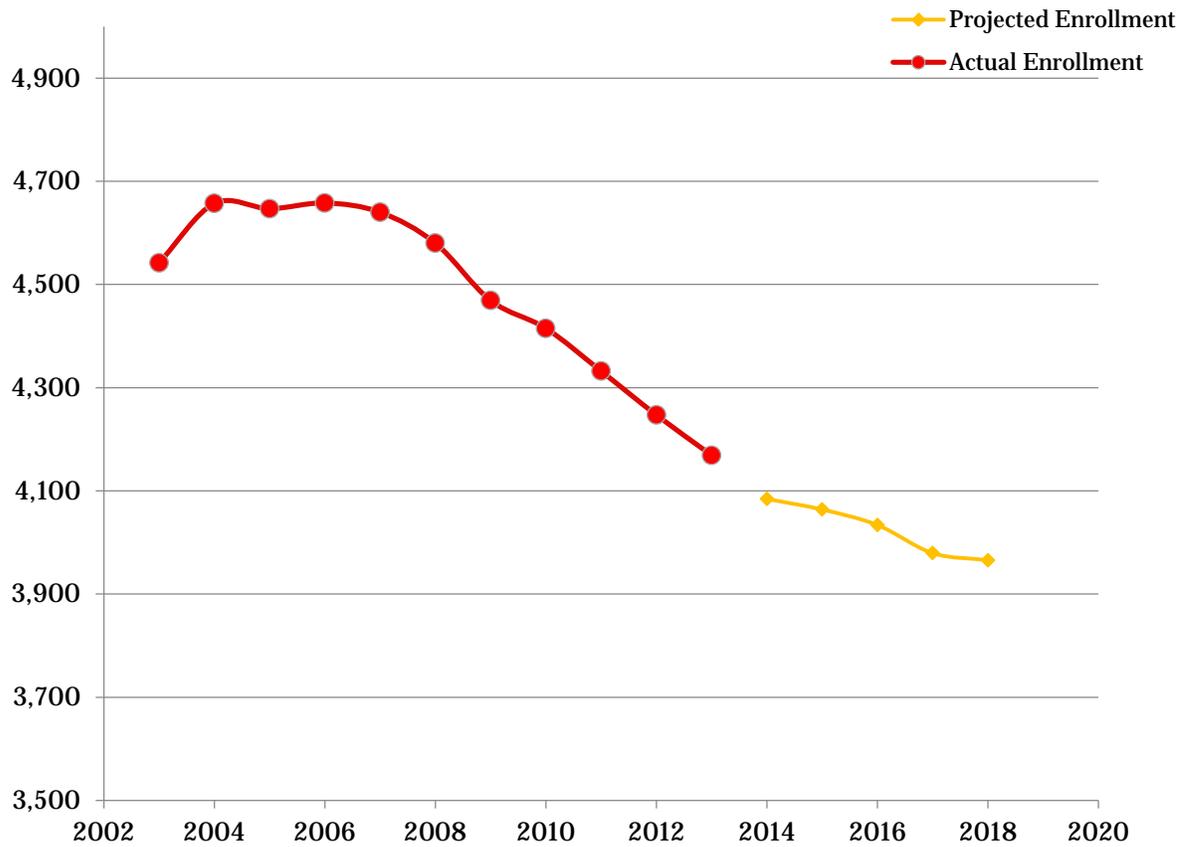
Exhibit 2.5

ACPS five-year enrollment projections by grade level

Grade	Year					Change
	2014-15	2015-16	2016-17	2017-18	2018-19	
K	310	318	327	312	319	3.1%
1	352	318	325	334	319	(9.6%)
2	324	346	312	320	328	1.3%
3	329	324	349	313	322	(2.3%)
4	308	338	334	359	322	4.6%
5	290	309	337	333	359	23.7%
6	277	277	293	322	318	14.8%
7	310	276	275	292	321	3.6%
8	296	308	273	273	290	(2.1%)
9	343	307	318	283	282	(17.6%)
10	357	321	287	298	265	(25.9%)
11	311	322	288	259	269	(13.6%)
12	277	302	314	280	252	(9.0%)
Total	4,084	4,064	4,034	3,979	3,966	(2.9%)

Source: Weldon Cooper Center and Prismatic calculations, June 2014.

Exhibit 2.6
ACPS five-year fall enrollment projections



*Note: year shown indicates the start of the school year, not the end (e.g., "2014" indicates 2014-15)
Source: Weldon Cooper Center, June 2014.*

Exhibit 2.7 provides the capacity and percent occupancy of the elementary schools for 2013-14. As shown, Pleasant View and Temperance are enrolled at percent capacities similar to several other division elementary schools. Both Amherst and Central Elementary Schools are currently enrolled at similar levels of occupancy. Divisions should not routinely seek to enroll students to 100 percent of a building's capacity, but should also not allow occupancy to dip below 70 percent.

Exhibit 2.7
Capacity and percent occupancy of ACPS elementary schools

School	Capacity 2013-14	ADM 2013-14	Percent Occupancy	Number Above/ (Below Capacity)
Amelon ES	527	504	96%	(23)
Amherst ES	510	313	61%	(197)
Central ES	527	292	55%	(235)
Elon ES	374	259	69%	(115)
Madison Heights ES	544	480	88%	(64)
Pleasant View ES	136	70	51%	(66)
Temperance ES	136	85	63%	(51)
Total	2,754	2,003	73%	(751)

Source: ACPS data and Prismatic calculations, 2014.

Preliminary analyses of transportation changes needed to better utilize Pleasant View and Temperance schools show that bus ride times are unlikely to worsen and may instead improve. **Exhibit 2.8** provides the results of one what-if scenario, using data from 2013-14, and assuming that both Pleasant View and Temperance are filled to capacity through redistricting. No redistricting was assumed for the other five elementary schools. As shown, that scenario, applied in 2013-14, would have shortened the average bus ride for students at Pleasant View, Temperance, and the other five elementary schools. It would have also reduced the longest ride time at the other five elementary schools from 67 minutes to 60 minutes.

Exhibit 2.8
What-if analysis of redistricting to fill Pleasant View and Temperance schools

	Pleasant View ES	Temperance ES	Average of all Five Other ES
Actuals, 2013-14			
Average Bus Ride Time	60 minutes	56 minutes	48 minutes
Shortest Bus Ride Time	47 minutes	45 minutes	33 minutes
Longest Bus Ride Time	80 minutes	77 minutes	67 minutes
Hypothetical, 2013-14			
Average Bus Ride Time	58 minutes	52 minutes	45 minutes
Shortest Bus Ride Time	42 minutes	45 minutes	30 minutes
Longest Bus Ride Time	80 minutes	63 minutes	60 minutes

Source: ACPS transportation department, in response to Prismatic request, 2014.

RECOMMENDATION 2.2

Improve usage of Pleasant View and Temperance Elementary Schools.

Based upon its experience with many school closure deliberations, the consulting team does not see clearly obvious and conclusive reasons to close Pleasant View and Temperance elementary schools at this time. The division should instead redistrict all elementary schools to better equalize enrollments in comparison to capacities. **Exhibit 2.9** provides the consulting team's recommended targets for this redistricting. These targets would need to be adjusted during redistricting to also meet the goals of minimized transportation time and maintenance of neighborhood integrity, to the greatest extent possible.

Exhibit 2.9
Recommended capacity and percent occupancy of ACPS elementary schools

School	Capacity 2013-14	ADM 2013-14	Recommended Target ADM	Recommended Percent Occupancy
Amelon ES	527	504	395	75%
Amherst ES	510	313	383	75%
Central ES	527	292	395	75%
Elon ES	374	259	281	75%
Madison Heights ES	544	480	408	75%
Pleasant View ES	136	70	129	95%
Temperance ES	136	85	129	95%
Total	2,754	2,003	2,120	77%

Source: ACPS data and Prismatic calculations, 2014.

FISCAL IMPACT

Implementing this recommendation will largely require only staff time. The division already has excellent GIS capabilities within its transportation department to support redistricting research. The consulting team estimates that at least 200 hours of staff time, from the superintendent, transportation coordinator, assistant superintendent for human resources, and various support staff will be needed to fully populate a redistricting/reconfiguration proposal. The division may realize some savings from a reduced need for teachers, but this would depend on the outcome of the redistricting.

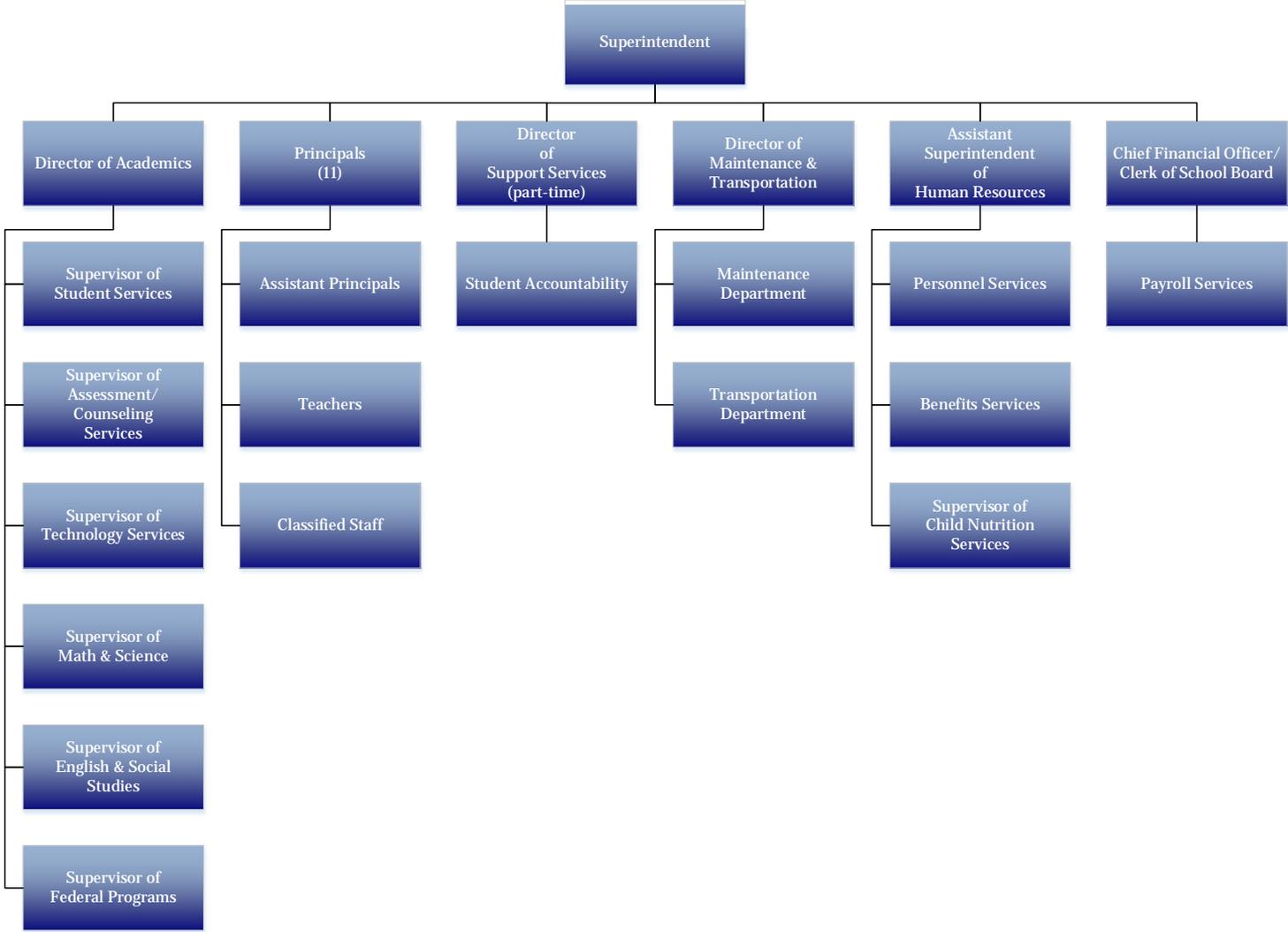
FINDING 2.3

The ACPS central office structure could be improved in several areas. There have been extensive cuts in personnel over the last five years, and one key position (director of support services) is currently held by a part-time person who then volunteers additional time to the division. Additionally, there are no trained backup people in finance and in the student information/data management system (PowerSchool).

The director of academics has too many direct reports that require evaluation, weekly guidance, and oversight. The responsibilities of that position are at an executive director level. The large span of duties and direct reports hampers other aspects of instructional planning, program evaluation, visioning, and implementation. Currently, there is insufficient focus on required areas such as school improvement planning and implementation. The supervisor of student services (special education) is at a director level in terms of responsibilities. Some adjustment, perhaps by assigning additional supervision duties to the supervisor to relieve the director, may be required in that area.

The current organizational structure of the ACPS central office is reflected in **Exhibit 2.10**. The central office consists of the superintendent, one assistant superintendent, two directors, one part-time director, and a chief financial officer. Serving under this supervisory level are seven supervisor level positions, six of which are in the instructional department, a student information systems manager, and several support staff coordinators and managers.

**Exhibit 2.10
Organization of ACPS central office**



Source: Created by Prismatic, April 2014.



Exhibit 2.11 indicates that ACPS, based on 2011-2012 data, had the third lowest central office administrative staffing when compared to its eight selected peer divisions and was 2.2 positions below the peer division average regarding the number of central office administrators. Regarding principals and assistant principals, ACPS was below the peer average by approximately one position per 1,000 students.

**Exhibit 2.11
Administrative count, 2011-12**

School Division	End of Year ADM	Administrative Staffing	Principals /Assistants per 1000 students
Caroline County	4,122	17.3	3.2
Carroll County	4,155	8.3	3.8
Dinwiddie County	4,412	17.0	4.0
Mecklenburg County	4,536	20.0	4.2
Pulaski County	4,442	14.0	4.1
Russell County	4,123	18.5	5.9
Smyth County	4,621	18.3	5.0
Wythe County	4,236	9.9	4.0
Peer Division Average	4,331	15.4	4.3
Amherst County	4,303	13.3	3.5

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

Additionally, between 2009-10 and 2013-14 ACPS eliminated 30 staff positions. Three staff positions from the central office and 27 positions from the school sites and support offices were eliminated.

An effective central office organizational structure is essential to the efficient delivery of services throughout a school division. Efficient central office organizational structures have the appropriate spans of control for division leadership with clearly defined lines of authority that are reflected in the division's organization charts. Effective central office structures encourage communication at all levels.

RECOMMENDATION 2.3

Improve the central office organization.

The division should:

- Reorganize the line reporting to the superintendent and assistant superintendent, the director of academics, and chief financial officer.
- Reorganize responsibilities, upgrade two positions (director of academics and supervisor of student services), and add a staff person to the instructional department (supervisor of school improvement).

The assistant superintendent could be more fully utilized in the central office as an assistant superintendent for administrative services with continuing oversight of human resources, technology services, student data management, and support services (maintenance, custodial, transportation). The organizational chart for this change is suggested in **Exhibit 2.12**.

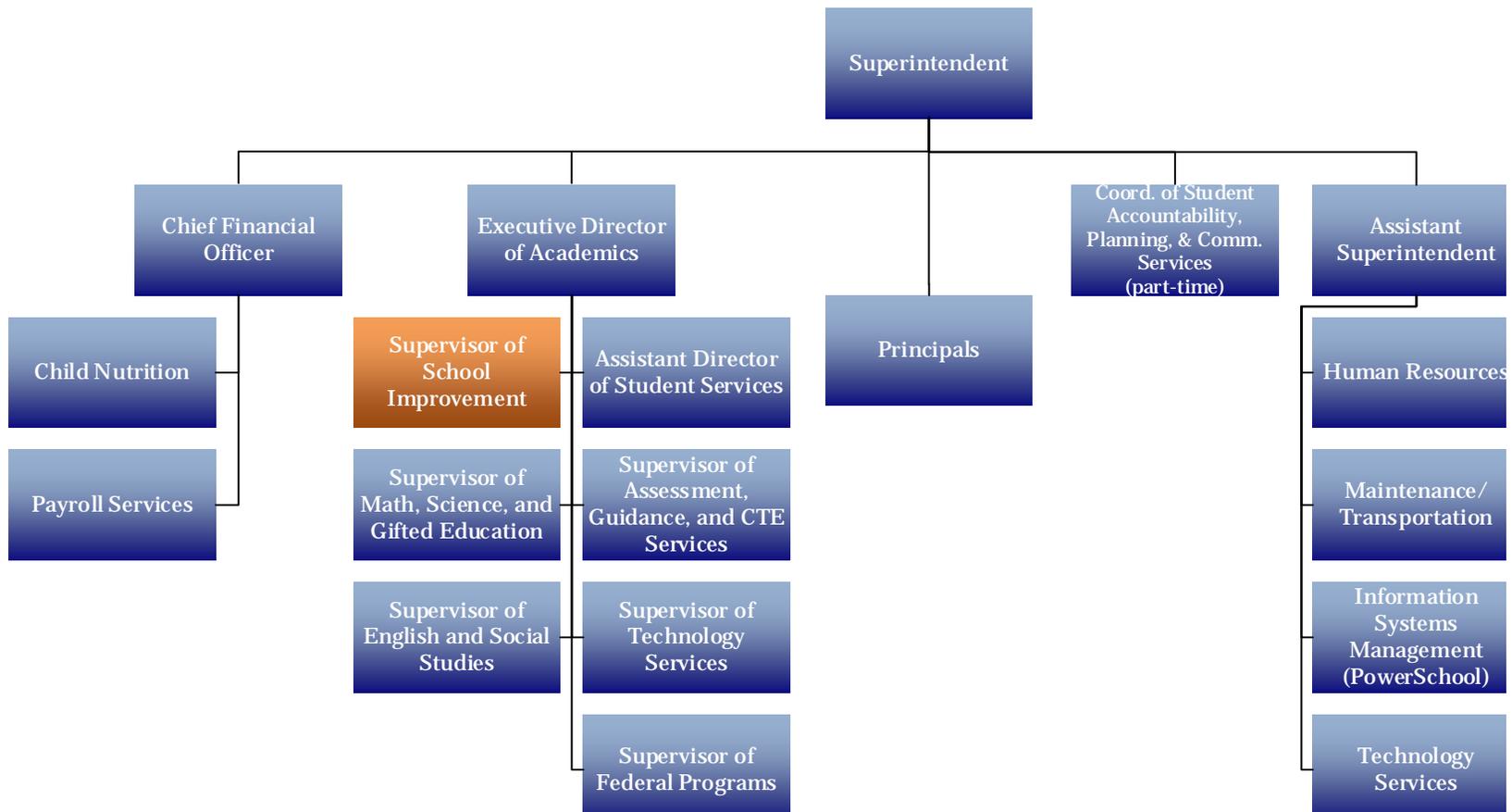


The executive director for academics would be able to utilize the extra time provided by the reorganization of duties for the refinement of the division's instructional goals and plans, additional analysis of professional development needs, and pilot programming of instructional strategies complete with program evaluation strategies. This change may also provide the opportunity to adjust supervisor responsibilities if needed based on experiences in 2013-14.

The proposed organizational chart reduces the number of direct reports to the superintendent by one and increases the direct reports of administrators to the assistant superintendent by three. Additionally, this particular chart changes the director of academics to an executive director, makes the student services supervisor an assistant director, and expands the direct supervision of that position. The child nutrition department would move under the chief financial officer. Lastly, under the instructional department a new position of supervisor of school improvement is created.

Changes to the organizational pattern in the central office should be made to add responsibilities to the assistant superintendent before the next school year. This will provide the superintendent additional time to work on division goals, board development (both county and school), and strategic planning. This change also better utilizes the skills of the existing assistant superintendent. The departments moved under the assistant superintendent would include the director of maintenance and transportation, student data information systems manager, and technology services. The other changes could be phased in as appropriate.

**Exhibit 2.12
Proposed ACPS organizational chart**



Source: Created by Prismatic, April 2014



FISCAL IMPACT

The reorganizing of direct reports to the assistant superintendent, director of academics, and finance manager has no direct cost. The superintendent and the assistant superintendent would spend an estimated eight hours each on the development of these initial changes in organization.

The fiscal impact of adding the recommended positions and upgrading other positions would be \$83,000 in additional salary costs to ACPS, excluding benefits.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Change the director of academics position to an executive director position.	(\$10,000)	(\$10,000)	(\$10,000)	(\$10,000)	(\$10,000)
Adjust supervisor of student services to an assistant director and expand his supervisory role.	(\$8,000)	(\$8,000)	(\$8,000)	(\$8,000)	(\$8,000)
Add a supervisor position.	(\$65,000)	(\$65,000)	(\$65,000)	(\$65,000)	(\$65,000)
TOTAL	(\$83,000)	(\$83,000)	(\$83,000)	(\$83,000)	(\$83,000)

FINDING 2.4

The instructional department is not staffed at the field level in every school with instructional specialists, as well as additional positions that support instruction in a manner that will provide the opportunity for innovation, support for changes in teaching technique, and support for improved student achievement. During the last five years, the department has lost seven staff field positions due to the decline in school division revenues:

- three reading specialists;
- one gifted and talented teacher;
- two counseling positions; and
- one technology resource teacher.

ACPS has made a commitment the last few years to instructional innovation, but recent budget cuts have interfered with important accountability and instructional changes required by the Virginia Department of Education. The new superintendent has launched an effort to reinvigorate instruction in ACPS. The loss of staffing has made this difficult.

Exhibit 2.13 provides a 2011-12 comparison of select peers with ACPS regarding instructional support positions. Seven of the nine schools elected to organize instruction with support positions, and of these seven, ACPS is in the middle. Three peer divisions have larger numbers of support positions and three have smaller. If other professional educators supporting instruction are counted, ACPS is tied for the fourth lowest in number.

**Exhibit 2.13
2011-12 instructional personnel**

School Division	Instructional Support Count	Other Professional Count	Total
Caroline County	9.2	8.4	17.6
Carroll County	8.3	16.0	24.6
Dinwiddie County	1.0	17.0	18.0
Mecklenburg County	13.0	12.0	25.0
Pulaski County	2.0	10.8	12.8
Russell County	3.0	9.0	12.0
Smyth County	0.0	11.5	11.5
Wythe County	5.0	15.0	20.0
Peer Division Average	5.2	12.5	17.7
Amherst County	7.0	12.5	19.5

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

RECOMMENDATION 2.4

Study the existing positions and responsibilities in the instructional department and gradually add positions back as necessary and as the budget allows.

The executive director of academics should be given the flexibility to add the positions necessary to fit ACPS instructional goals and objectives. This can be completed as budgets allow.

The study of responsibilities necessary to begin this task should be accomplished by the director of academics during the summer of 2014. The resulting report should include a clear chronology for adding positions and descriptions of anticipated job responsibilities, as well as highlight how these positions will support instructional goals and objectives of the department and school division. The plan for adding back staff must be approved by the superintendent and school board.

FISCAL IMPACT

The completion of this study by the director of academics will have no direct cost, but it is anticipated that the director will spend 80 hours completing the analysis and developing recommendations.

FINDING 2.5

The PowerSchool data manager does not have a trained backup person able to pull data reports and upload state reports. Moreover, the division is doing little data mining or customized reports for individual schools.

PowerSchool is the database used to manage and report nearly all student information in ACPS. Its maintenance, updating, and use are critical functions. The current data manager, while proficient in all these areas, is only one person, which leaves the division at risk should an unplanned absence occur. Moreover, because there is only one data manager, the division is not currently using the full power of the system to assist schools in deeper analyses through data mining and report customization.



The consulting team acknowledges that the technology department manager can perform the technical backup responsibilities of making the system work for those in the schools. However, assisting schools with the data itself, as well as research and report development, are skills still needed when the information manager is absent. The division will need to determine how best to provide competent back up for this critical position.

The existing student information system data manager will also need training on customizing reports using PowerSchool. Customizing reports will add a powerful new element to data analysis for the division-level and the schools. Both the current person and the backup should attend this training but perhaps at separate times if it cannot be done in the summer.

RECOMMENDATION 2.5

Develop a backup person for the PowerSchool student information system, and provide the necessary training for both individuals.

The consulting team discussed the possibility of designating someone at the central office for training. The assistant superintendent for human resources will need to study staff skills and seek a person for this backup position.

FISCAL IMPACT

The fiscal impact will be based on actual training and support costs, as well as the actual bump in salary for the person assigned to train as a backup person. The training should be attainable through online webinars.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Provide PowerSchool training.	(\$5,000)	(\$2,000)	0	0	0
Provide extra-duty pay for backup person.	(\$1,500)	(\$1,500)	(\$1,500)	(\$1,500)	(\$1,500)
TOTAL	(\$6,500)	(\$3,500)	(\$1,500)	(\$1,500)	(\$1,500)

FINDING 2.6

The superintendent encourages innovation and forward thinking in all school staff. A specific example is the focus of all staff on instructional delivery to students, and the thought process about how each role in the division can promote its mission of “Every Child, Every Day.” Other examples include the book study instituted with executive staff, and the launching of the Thinking Maps Initiative to focus the division on instructional delivery.



COMMENDATION

The superintendent has worked to focus the division on its primary mission, which is the delivery of quality instruction to all students.

FINDING 2.7

The ACPS central office displays trust, collaboration, teamwork, and excellent communication skills both internally at the central office and externally to their customer base at the local school sites. In interviews and focus groups, it was clear that internal communications at the central office are superb. The superintendent was described as approachable and willing to listen.

In the central office interviews, staff members were positive and satisfied with the level of communication and knowledge displayed within their given departments and with the superintendent. The consulting team repeatedly heard that the central office staff shares information and works together collaboratively with no barriers to communication and no sign of territorialism or jealousy. In interviews and focus groups, school principals stated that communication and collaboration in decision-making improved last year.

COMMENDATION

The superintendent, central office staff, and principals are commended for the collegiality and communication displayed as they work to serve the students of Amherst County.

FINDING 2.8

The ACPS budget cuts over the last five years have stretched teachers and principals to the point of fatigue. Educators strive to protect children from the most noticeable effects wrought by budget cuts. As a result, teachers, principals, and support staff often take on more work without proper compensation. Interviews and focus groups made it clear that ACPS is trying to adjust to extensive staff losses.

ACPS has lost 30 total positions over the last five years, most of which were teaching/instructional and support positions. Of the 30, 24.2 were cuts made between 2012-13 and 2013-14. The duties formerly handled by this staff have been absorbed by other existing division staff, which places a significant burden on remaining staff. The impact on programs and workloads must be addressed before it starts to have adverse effects on the quality of teachers and administration employed in ACPS.

The additional staff cuts made at the school sites from 2012-13 to 2013-14 are profiled in **Exhibit 2.14**. The largest staff cuts were received by the Amherst County High School, and Amherst, Pleasant View, and Temperance elementary schools.

Exhibit 2.14
School site staff reductions between 2012-13 and 2013-14

School/Department	2012-13 Number of Employees	2013-14 Number of Employees	Difference
Amherst County High	142	137.3	(4.7)
Amherst Education Center	19	17.5	(1.5)
Amherst Middle	54	55.0	1.0
Monelison Middle	70	69.5	(0.5)
Amelon Elementary	59	60.8	1.8
Amherst Elementary	44	38.3	(5.8)
Central Elementary	56	52.5	(3.5)
Elon Elementary	41	40.0	(1.0)
Madison Heights Elementary	57	60.3	3.3
Pleasant View Elementary	18	13.5	(4.5)
Temperance Elementary	18	13.5	(4.5)
Total	578	558.2	32.1

Source: Created by Prismatic, April 2014.

RECOMMENDATION 2.8

Study the overall staffing cuts made and their impact on workloads, and develop a prioritized list of what will be added back as funding becomes available.

The superintendent and his leadership team must study the cut positions in relation to ACPS goals and objectives and the available money. The team should develop a plan of action that describes what, when, and how staff will be added back to the division roster.

FISCAL IMPACT

The impact of doing the study will have no actual cost, but it is anticipated that the superintendent and his leadership team will spend 40 hours doing the analysis and developing the plan.

FINDING 2.9

The governance model in Virginia has changed during the last 10 years. Nearly all (98 percent) of the school divisions have an elected school board rather than a school board appointed by the county board of supervisors. This follows a national trend, with fewer than 3.8 percent of the school divisions nationwide having an appointed school board.² Maintaining an appointed school board is out of step with other school divisions nationwide. All eight of Amherst’s peers have elected members that represent geographic areas within the school divisions. There is a local group in Amherst County working to petition for a change to an elected school board.

Elected school boards are inherently more democratic in nature and provide division stakeholders, including parents and other community members, with a direct voice in the

² National School Boards Association: <http://www.nsba.org>. For full text: <http://www.nsba.org/bookreports/SBDawn21stCent.pdf>



governance of their division. It also takes the power of patronage out of the hands of a county board of supervisors or other authority, thereby shifting the priorities of the school board from serving the county to serving students, their parents, and the community.

RECOMMENDATION 2.9

Encourage the electorate to vote on the issue of an elected versus an appointed school board.

The school board and superintendent should keep this issue in front of the county board of supervisors. The petition process can be waived if the county board calls for a referendum. If necessary, both approaches (a petition or simply calling for a referendum) can move forward at the same time until one or the other achieves the result. Empowering the electorate to make their own decisions on who represents them on the school board is the basis of the democratic system of government.

FISCAL IMPACT

The work to achieve a county election of school board members has no direct cost. However, the time involved will be extensive for the superintendent and school board members. It could take as much as five hours of focus a week by school staff and board.

FINDING 2.10

The county and schools have not collaborated effectively in the last few years.

The current superintendent is striving to develop better relationships with the county board of supervisors, and progress has been made in establishing trust. The handling of the last budget presentation to the county board of supervisors by the superintendent and the ACPS finance manager was well received by the county board. Nevertheless, further improvements are needed.

The working relationship the last few years between the county board of supervisors, the school board, and the previous school superintendent has been fraught with difficulty. This was mentioned in nearly all of the interviews and focus groups. The county board of supervisors has accused the school board of wasting money and attempted to take control of the school board through the appointment process. In interviews, many employees of the school division blamed the county board for shortages in funding. The county board is also blamed for attempting to interfere with school board decision-making by seating a county board of supervisors' member on the school board (a move that is not legal³) and, failing that, subsequently appointing individuals to the school board who are perceived as not supportive of the school division in general. The resulting media coverage has not been favorable to the county board of supervisors.

The county lacks a long-range plan that establishes county needs present and future, utilizes multiple revenues for addressing needs, and is designed to grow county revenue through economic development. The Eperitus study accepted in November 2008 utilizes data for projections that are now nearly 15 years old. Such planning is critical for determining in

³ Such appointments are explicitly forbidden by Code of Virginia § 22.1-30: "No state, county, city or town officer, no deputy of any such officer, no member of the governing body of a county, city or town, no employee of a school board... may, during his term of office, be appointed a member of the school board for such county, city or town or as a tie breaker for such school board..." Exceptions are made to this statute, but they do not include an exception for a county board of supervisors' member.

what direction the community would like to see the school division develop, what initiatives will be pursued, and how future success will be measured.

RECOMMENDATION 2.10

Continue to work on improving relations with the county board of supervisors.

The school board should begin by studying servant leadership as a basis and philosophy for serving the community and should invite county supervisors to participate with them.⁴ While most civic leaders want to do what is best for their communities, it is easy to lose sight of the common good and focus instead on a personal agenda, particularly when sectors of the community call for partisan politics. Servant leadership, on the other hand, focuses on what is best for all constituents. This would include growing county revenues through business development.

The superintendent and school board should support the county in long-range planning that includes a focus on growing the county tax base. Many other counties are working at growing their revenue and collaborating with other agencies, including those counties close to Amherst. These counties, including Nelson, Lynchburg, and Waynesville, are looking to the future. So must Amherst County.

Moving forward, increased collaboration could involve some of the following strategies:

- participation of the school board, county board of supervisors, and chamber of commerce in meetings to discuss economic development in Amherst County;
- creation of a county economic development council with top leaders from a variety of entities as members;
- creation of a partnership in which the school leadership, school board, county board, and community are involved in long-range strategic planning activities – first for the school division, and then for county services;
- focusing on the future of Amherst County by taking the time to receive community input on what is needed and desired by the broad spectrum of citizens; and
- development of a partnership between schools and the county regarding parks and recreational development. This can involve:
 - upgrading school playgrounds and opening them to the public when school is not in session;
 - using school property and county property to develop a system of biking and hiking trails; and
 - partnering to open school gymnasiums at night for use by the community for healthy lifestyle and recreational development for the community.

FISCAL IMPACT

This recommendation has no direct cost; however, it will take the time of the superintendent, the school board, and the county board of supervisors. It is estimated that

⁴ <http://www.greenleaf.org/>

these entities will spend 80 hours on related activities and meetings at the inception.

B. Procedures

The school board has the major task of ensuring that policies are in place to govern the work of the school division. 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 2.11

ACPS submits policies to a board review process on a regular basis. Policies are up to date and useable, posted online, and available in handbook form. The principals' meetings are utilized in part to make sure that principals have a forum for asking questions on policy implementation, expressing concerns, and working collaboratively for continuity across the division.

COMMENDATION

The school board and the superintendent have an effective process for maintaining and updating policies.

FINDING 2.12

ACPS has handbooks and some process documentation in individual departments. However, the division is dependent, at times, on institutional knowledge of department directors and others in the divisions to operate. For example, there are no Standard Operating Procedures (SOP) for two critical areas of the division: the PowerSchool information data manager's duties and the chief financial officer's duties which leaves the division vulnerable to operational losses should the knowledge be lost.

RECOMMENDATION 2.12

Develop a method of recording processes utilized in high value offices where single individuals hold all of the historical knowledge of how the work is done.

Department heads should ask those recording work processes to write as if they were going to be out of the division for an extended time and as if someone has to pick up the handbook and carry work forward. Some examples of administrative procedure handbooks might prove helpful; Richmond Public Schools (VA) has an example that may be accessed online.⁵

⁵ <http://web.richmond.k12.va.us/Departments/HumanResources/AdministrativeProcedures.aspx>

FISCAL IMPACT

There is no direct financial cost regarding this recommendation, but it is anticipated that the superintendent and his leadership team will spend approximately eight hours identifying all the areas where process recording is needed, as well as communicating a method to staff about accomplishing the documentation. The staff involved will likely spend another four to eight hours documenting processes.

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; and
- **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 ACPS 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 of the extent to 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 school board;
- 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.

Evaluation is a critical component of high performance schools. One aspect of evaluation is to identify the match between programs under consideration and actual student academic needs and demographics. Additionally, programs in place should have formative evaluations conducted to determine the need for change and refine strategies for effectiveness. Having a regular effective process of program evaluation ensures that the division realizes the greatest benefit from expenditures. It examines both formative and summative stated goals and objectives and their alignment with actions and intended achievements. Benchmarking can provide an interim examination of implementation and guide revisions and adjustments to make a program more effective.

FINDING 2.13

The consulting team found that the superintendent, executive staff, and school board have not engaged in an effective goal-setting strategic planning process.

ACPS has many ongoing planning efforts in individual areas of the division including the state required InDistar plan for school improvement, gifted plan, technology plan, Title I plan, and an overall school board directed plan with goals at the division level reviewed annually in a school board retreat (created during a previous superintendent's tenure). The common theme across these is the focus on instructional delivery in the majority of plans. However, the existing plan does not address future planning or issues involving low enrollment in schools. The capital improvement plan is dated from 2010 and is not funded. The division does not regularly review enrollment forecasts to assess changes in future funding or building needs.

The goal-setting process is the most important activity of the school board. As representatives of the community, school board members guide the school division in the direction of meeting the community needs. Those needs are identified both by state and federal laws and by the unique needs of the parents, grandparents, student population, and community stakeholders. **Exhibit 2.15** reflects eight effectiveness indicators of school boards. Goal-setting is the first indicator and sets the tone for all others.

Exhibit 2.15
Eight characteristics of effective school boards

Characteristics	
1. Effective school boards commit to a vision of high expectations for student achievement and quality instruction and define clear goals toward that vision.	<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: student 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.
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 children at high levels.	<ul style="list-style-type: none"> a. Board members consistently expressed their belief in the learning ability of all children and gave specific examples of ways that learning had improved as a result of division initiatives. b. Poverty, lack of parental involvement and other factors were described as challenges to be overcome, not as excuses. c. Board members expected to see improvements in student achievement quickly as a result of initiatives. 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.
3. Effective school boards are accountability driven, spending less time on operational issues and more time focused on policies to improve student achievement.	
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.	
5. Effective boards are data savvy; they embrace and monitor data, even when the information is negative, and use it to drive continuous improvement.	
6. Effective school boards align and sustain resources, such as professional development, to meet division goals.	
7. Effective school boards lead as a united team with the superintendent, each from their respective roles, with strong collaboration and mutual trust.	<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.
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.	

Source: Center for Public Education, adapted by Prismatic, May 2014

RECOMMENDATION 2.13

Implement training for the school board on strategic planning, goal development, and program evaluation.

The National School Board Association (NSBA)⁶ is a great source of information that can be used by the superintendent and/or school board president to spearhead training efforts. Most of the training from NSBA can be done as webinars. However, the local Virginia State School Board Association has a school board academy and can do customized training.⁷

FISCAL IMPACT

This recommendation can be implemented using some of the funds already available for school board member training. Costs should not exceed \$2,000 to \$3,000 of this existing training budget.

FINDING 2.14

The ACPS strategic plan could be more informative and updated. The strategic division plan can be improved by creating more specific short-term goals that support established long-range goals. Short-term goals should be “SMART”: specific, measurable, achievable, relevant, and time-bound. The goals should form the basis for a strategic plan covering all aspects of the school division.

A good strategic plan links objectives with division goals, includes a process for evaluating progress, and is updated annually. According to Cook (2000), strategic planning requires total concentration of the organization’s resources on mutually pre-determined measurable outcomes.⁸ Strategic planning allows an organization to have a clear focus on what it is doing and what it intends to do based upon established and monitored goals. A strategic plan will include long-term goals, which typically can be achieved in five to 10 years. Short-term goals, which typically can be achieved in a year, support the attainment of the long-term goals.

All too often, organizations develop strategic plans that are broad statements with no ties to specific goals or outcomes. For example, a school division may establish a goal of “improving student performance” without setting a target, identifying the strategies it plans to employ to achieve the desired outcome, or even fully defining “student performance.” A better goal would be, “Improving student achievement by 10 percent from last year to this year as measured by state standardized testing.” The division would then identify the means by which this goal would be achieved, such as through additional small group instruction with benchmark testing to monitor progress.

Many school divisions use the balanced scorecard approach to strategic planning. This approach ties mission and vision with sound business practices, explicit expected employee behaviors, and planned daily operations that will achieve desired results. Using the plan, decisions are clearly tied to priorities, related actions, and employee/community satisfaction. It focuses actions on data, efficiency, prioritized initiatives, improved

⁶ <http://www.nsba.org/>

⁷ Virginia School Boards Association. Retrieved from <http://www.vaschoolboards.org/images/uploads/BoardDevWhitepages.pdf>

⁸ Cook, Jr., W. (2000). *Strategics: The art and science of holistic strategy*. Westport, CT: Quorum Books.

communications, and a purposeful connection between the budget and goal achievement. **Exhibit 2.16** shows the process. The Balanced Scorecard Institute outlines nine key critical elements for strategic planning on its website.⁹ The National School Board Association website also provides tools to assist in developing strategic plans.¹⁰

Exhibit 2.16
Balanced scorecard logic and planning



Source: Balanced Scorecard Institute, September 2008.

RECOMMENDATION 2.14

Adopt a new style of strategic plan utilizing “SMART” goals and the balanced scorecard approach.

ACPS will need to plan introductory training for the selected individuals participating in the new strategic plan process. A train-the-trainer model should work well in this respect. Alternatively, the superintendent may decide that he can do it.

A strategic planning process can start with an annual superintendent’s report to the board on the state of the school division in all of its many facets. This can also provide a great orientation tool for new school board members. A performance review is a great launching point for strategic planning. Once a strategic plan is established, a follow-up annual retreat, attended by the board, superintendent, and other key administrative staff, should be scheduled in order to review the division’s progress and adjust goals accordingly (a step ACPS already completes). Such a review may include specific long-, mid-, and short-term goals.

Additional meetings can be handled through scheduling school board working meetings during the year. The key is that the planning process should become systemized as an annual

⁹ <http://www.balancedscorecard.org/BSCResources/TheNineStepstoSuccess/tabid/58/Default.aspx>

¹⁰ <http://www.nsha.org/sbot/toolkit/spt.html>

undertaking by the board and superintendent. Strategic planning in all areas of ACPS operations can assist in efforts to improve student academic achievement, address facility needs, establish appropriate roles and responsibilities for staff members, and clarify public perceptions and the goals of the school board. Most importantly, communicating the goals and plans to all levels of the organization and the community will promote positive regard from the public that the board understands the needs of the division. A successful, forward-looking school division is the best method of attracting students and quality teachers.

FISCAL IMPACT

The process of strategic planning has no direct cost but will take a great deal of school staff and school board time. The amount of time for school staff including the superintendent, assistant superintendent, and other directors will be approximately 80 hours each. The school board members can expect to spend around 20 hours each.

FINDING 2.15

Program evaluation is beginning to become more important to the division as initiatives in instruction are brought forward to impact instructional delivery and student achievement. Several departments, including instruction and human resources, have completed evaluations of the effectiveness of several programs. However, a division emphasis is needed to push program evaluation documentation to the front of everyone's thinking.

There are many pieces implemented or in the process of implementation, but no overall conceptual model or strategies have been outlined. In addition, ACPS does not have a defined process for evaluating the major pilot programming and initiatives launched by the school division.

Program evaluation requires benchmarks on progress toward a goal. A good rule of thumb is that every action strategy with an ending date should have a rubric on evaluating the success or failure of the strategy. That approach will take some of the subjectivity out of evaluating progress. Establishing the evaluation method up front also helps clarify for individuals what the action strategy is intended to produce. Ideally, the evaluation rubric should be outlined at the outset of each new program and it should be explained in the action planning completed by divisions. The Title II monitoring audit is a good example of an evaluation rubric.

RECOMMENDATION 2.15

Provide training in program evaluation for all central office directors and supervisors, principals and assistant principals, leadership teams, and teacher leaders.

This can be done in a train-the-trainer model, or the superintendent may find that he or someone else on staff has the skills to do the training. The application of program evaluation activities should be defined by the leadership team of the school division.

FISCAL IMPACT

The training should not be expensive. The consulting team estimates that \$2,000 will be needed for training materials, and no more than six hours of training time should be required.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Train in evaluating programs.	(\$2,000)	(\$0)	(\$0)	(\$0)	(\$0)

D. Community and Parent Involvement

School divisions are a vital part of communities, often associated with a community's identity, sense of pride, and quality of life. This is especially true in smaller communities. In order to strengthen this role, school divisions should develop effective communications and community involvement programs that lead to a more informed and engaged staff and community. Research demonstrates that community outreach benefits both the community and the schools. Effective community involvement programs should highlight the unique characteristics of the school division and the community. These programs can significantly affect citizen perceptions of the community the school system. Effective programs will rally public support and involvement. That will result in parent and community volunteers, public participation in the decision-making processes that affect the schools (e.g., board elections), and productive business and community alliances.

FINDING 2.16

ACPS has worked hard to involve parents in division decision-making committees and division activities. However, parent participation is mostly inconsistent. In interviews, staff attributed the lack of parent participation to issues such as parents being busy at work, parents working far away from the county, and parents trusting the schools enough to not get involved. ACPS staff has also noted that regularly scheduled parent conferencing is poorly attended by parents.

It is the synergy of strong parental involvement derived from communication and a sense of belonging that makes a stronger overall school division. Joyce Epstein at Johns Hopkins University and others have documented research showing the positive effect that strong parental involvement has on schools and student achievement:

- Fifty (50) to 85 percent of the variance in achievement scores, IQ, or verbal ability can be attributed to parent, family, and home environment variables.
- Parent education programs, especially those that train low-income parents to work with their children, improve how well students use language skills, perform on tests, and behave in school.

- Many studies have found that when parents become involved in school activities, not only do their attitudes improve, but also those of their children. Student achievement rises, as well.¹¹

RECOMMENDATION 2.16

Develop strategies for enhancing parent involvement in ACPS.

A few of the strategies might include:

- professional development for staff on how to work with families in poverty;
- development of a division-level coordinated volunteer recruitment program;
- development of a parent-teacher organization division-level council with representatives from each school;
- encouragement of parent-teacher organization development in all secondary schools;
- addition of a periodic student performance at the start of school board meetings, with parents invited and welcomed by the school board and superintendent; and
- addressing attendance at parent conferences, specifically trying some of the following strategies:
 - Schedule siblings back to back when possible.
 - Offer early evening, early morning, and nighttime conferences when necessary.
 - Use prearranged phone call appointments.
 - Offer drop-in babysitting during conference times.
 - Provide a sandwich dinner for those coming straight from work.
 - Make sure the teachers have training in conferencing and provide personalized, worthwhile information about the students.
 - Implement student lead conferencing.¹²

FISCAL IMPACT

The fiscal impact depends on which strategies the division chooses to implement. The consulting team suggests implementing first those strategies that have low or no cost, and to study the effect before trying higher cost strategies.

¹¹ Epstein, J. L. (2001) *School, family and community partnerships: Preparing educators and improving schools*. Boulder, CO: Westview Press. Additional research available at <http://www.csos.jhu.edu/p2000/>

¹² http://www.educationworld.com/a_admin/admin/admin112.shtml

Educational Service Delivery

This chapter reviews four aspects of educational service delivery management in Amherst County Public Schools (ACPS):

- 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 needs, provide educational services to address those needs, measure student performance, and make necessary adjustments.

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

- The ACPS board and superintendent promote successful educational leadership through well-written policy and an efficient working relationship.
- ACPS effectively meets the academic needs of students from Pre-Kindergarten to graduation.
- ACPS annually reviews curriculum and seeks input from teachers on improving it.
- ACPS awards high school credit to achieving eighth graders who take advanced classes. Students profit from the advanced work and are better prepared for Advanced Placement (AP) classes and dual enrollment at the high school level.
- ACPS provides exemplary special education services to its students.
- ACPS provides services for their talented and gifted students beginning with a division-wide screening at second grade and continuing with a rescreening in sixth grade, providing multiple opportunities for the identification of and service to advanced students.
- ACPS provides exemplary and comprehensive ESL support.
- ACPS offers a well-planned, spacious, inviting building for the delivery of educational services to the most at-risk students by a dedicated staff in a time of limited resources.

The consulting team also made five recommendations in this chapter:

- Update the ACPS organizational chart to reflect the true job responsibilities of positions and add a full-time mathematics instructional supervisor.
- Review school and division data to determine the academic needs of the school system and address them efficiently and effectively to provide direction for the next six years.

- Review the needs of each school, assign assistant principals equitably, and restore supporting personnel.
- Hire two mathematics specialists to be shared by those sites under school improvement.
- Grant teachers administrative access to information in order to perform the tasks formerly completed by administrators.

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		2014-15	2015-16	2016-17	2017-18	2018-19	Total
3.2	Add a supervisor of mathematics.	(\$76,320)	(\$76,320)	(\$76,320)	(\$76,320)	(\$76,320)	(\$381,600)
3.7	Add two mathematics specialists.	(\$77,440)	(\$77,440)	(\$77,440)	(\$77,440)	(\$77,440)	(\$387,200)

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

The ACPS school board and superintendent are focused on providing educational leadership. The board and superintendent have a collaborative relationship that is focused on improving student achievement.

The organization and management of the educational services of a division provide the platform and launch pad for a successful school system. Best practices require administrative and board support for schools to provide equitable opportunities for all students to succeed. Budgeting and planning at the division level must begin with the end in mind and include the variety of support, security, and safety services required for all students and employees. Provision for policies and procedures for the operation of the division must be in place with scheduled reviews and updates. Identifying and communicating the division's goals must be an established, transparent, public process informing not only students and staff but also the wider community.

The Basic Instructional Programs (**Exhibit 3.1**) document the commitment of the ACPS board to the education of all school-aged children. The board meets regularly, and meeting times and location are published and shared with all schools and the community.

Exhibit 3.1 ACPS basic instructional programs

Because education is a lifelong process, the educational program shall provide both formal studies to meet the general academic needs of all students, and opportunities for individual students to develop specific talents and interests in career and technical and other specialized fields and grow toward independent learning.

The various instructional programs shall be developed with the view toward maintaining balanced, integrated, and sequentially articulated curricula which shall serve the educational needs of all school-aged children in the division.

The Amherst County School Board subscribes to the philosophy that well-developed reading and other basic skills, including the ability to spell, speak, and write intelligently are essential in society. It shall adopt specific requirements to ensure that high school graduates are sufficiently competent in these essential skills.

At all levels, provisions shall be made for a wide range of individual differences in student abilities and learning rates through uses of a variety of materials, adjustments in programs, and courses adapted to special needs of students.

The curriculum shall meet or exceed those requirements established by the Code of Virginia, the State Department of Education, and the State Board of Education. The curriculum will be aligned to the Standards of Learning.

Legal Ref.: Code of Virginia, 1950, as amended, sections 22.1-78, 22.1-253.13:1 et seq. 8 VAC 20-131-10 et seq.

Source: Amherst County Public Schools Full Policy Manual, Section I.

The superintendent has begun presenting a lesson for the board at each meeting to inform them of important aspects of educational services. This practice allows the board to become familiar with happenings and best practices in schools and the many programs in place at different levels necessary for their operation. Honoring school board members with information from the division focuses attention on the classroom and the delivery of educational services to ACPS students. The Virginia School Boards Association offers training sessions for board members to familiarize them with the responsibilities of board membership and the needs of divisions, but this local practice, led by the superintendent, is more convenient and relevant to the board members in ACPS.

The policies and procedures of ACPS emanate from the board and are facilitated by the superintendent and his senior staff. The continued collaboration of the superintendent and the board promotes the organizational health of the division. The respectful and collegial relationship the board, the superintendent, and division personnel maintain ultimately benefits all students in ACPS.

The board maintains policies aligned with the Code of Virginia and documents its commitment to equitable educational programs for all ACPS students. The superintendent and his staff ensure that board policy is carried out.

COMMENDATION

The ACPS board and superintendent promote successful educational leadership through well-written policy and an efficient working relationship.

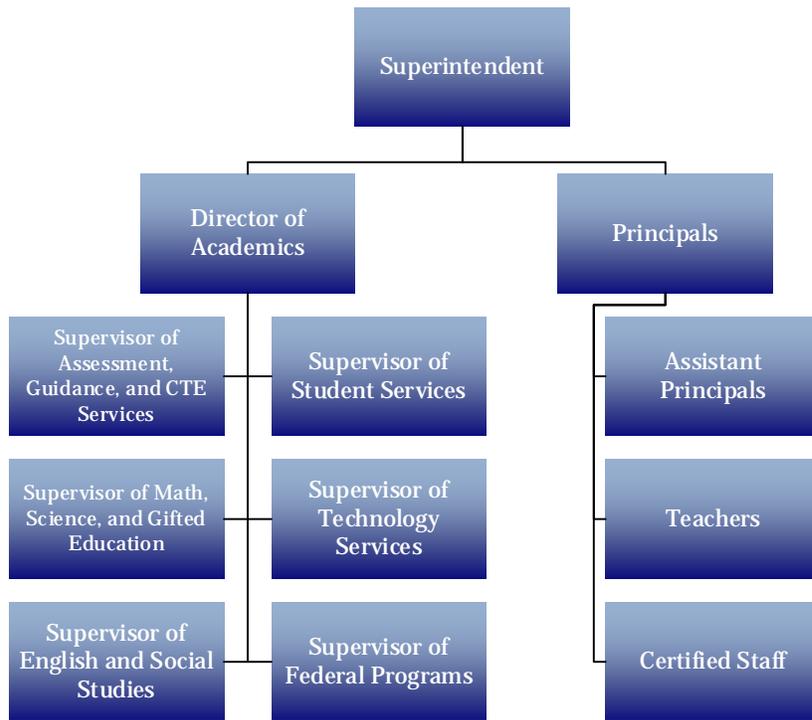
FINDING 3.2

Within the instructional department, staffing is lean. The director of academics is also completing her first year in that position.

The superintendent's central office staff is lean yet committed and capable. The supervisor of support services is a retired former employee now working for the division part-time. The federal programs supervisor has had library/media supervision added to her job responsibilities in recent years. The mathematics and science supervisor is also responsible for talented and gifted (TAG) education in all schools. The English language arts supervisor also supervises Pre-Kindergarten and collaborates with the county Head Start programs for preschool children. The supervisor of counseling services and assessment is also the career and technical education supervisor and has counseling duties at Amherst County High School. The student services supervisor is responsible for special education services in all schools. The staff that reports to the part-time supervisor of support services has been reduced while the caseload remains the same. Although the total student count is lower than that of the previous year, the number of schools served by the central office is the same.

Organizing the division for the delivery of services is the responsibility of the superintendent. The division must be organized in a functional manner that allows for the successful management of the central office staff while supporting every school in the division. The organizational chart is an important document that provides guidance for the entire division. The chart shown in **Exhibit 3.2** has been developed as the division has experienced loss of staff due to budget cuts; additional duties have been assigned to all positions that remain. These additional responsibilities are not reflected in the current chart.

Exhibit 3.2
Current organization of ACPS academic staff



Source: Created by Prismatic, May 2014.

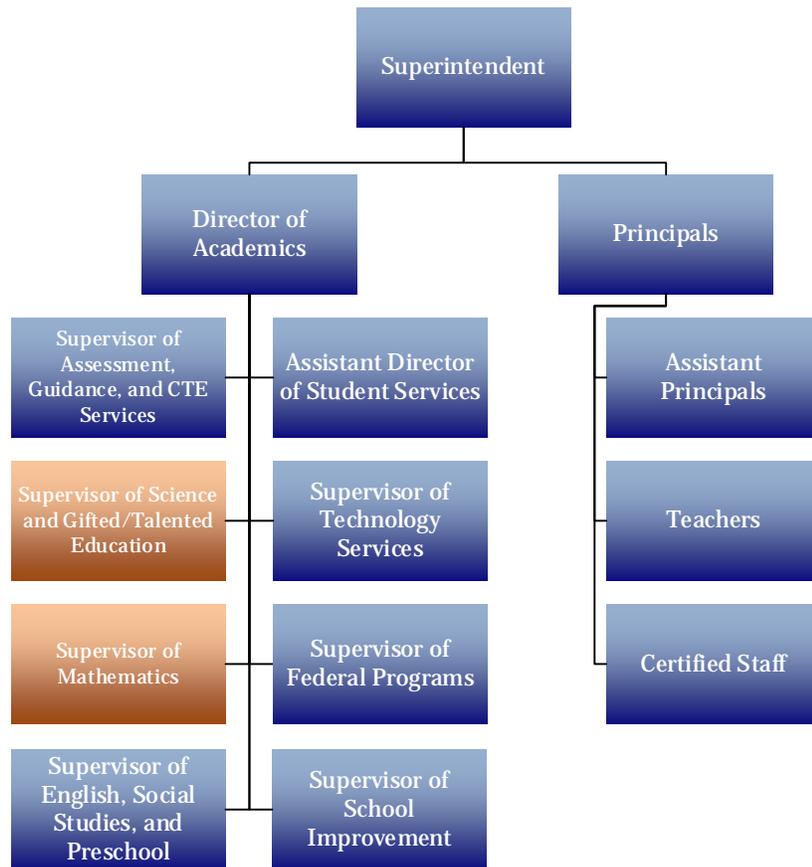
RECOMMENDATION 3.2

Update the ACPS organizational chart to reflect the true job responsibilities of positions and add a full-time mathematics instructional supervisor.

The present mathematics and science supervisor has, in addition to his core curricular responsibilities, oversight of gifted and talented education. An added mathematics supervisor could relieve him of some burdens and assume other tasks as well, such as the library services management currently performed by the supervisor of federal programs.

The addition of a mathematics supervisor addresses the need for additional support in schools presently in school improvement. Although the VDOE has various formulas to allow schools time to overcome deficits in meeting mathematics and reading targets, divisions are expected to make progress as quickly and efficiently as possible. Redistributing responsibilities by adding a mathematics supervisor could increase the efficiency of other supervisors, as they would have fewer demands on their time. As a result, support to schools would be increased and the central office staff could become even more effective. **Exhibit 3.3** provides the recommended organizational structure of the division’s academic staff. The changes to the supervisor of student services position and the creation of a supervisor of school improvement position were previously recommended in Chapter 2 of this report and are provided here for clarity.

Exhibit 3.3
Recommended organization of ACPS academic staff



Source: Created by Prismatic, May 2014.

FISCAL IMPACT

The consulting team estimates an annual salary of \$63,000 for an added mathematics supervisor, along with \$13,320 in benefits at a 21 percent rate. This would lead to an added annual expense of approximately \$76,320.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Add a supervisor of mathematics.	(\$76,320)	(\$76,320)	(\$76,320)	(\$76,320)	(\$76,320)

FINDING 3.3

The Virginia Department of Education requires every division to have a six-year academic plan. ACPS is in the sixth year of its most recent plan. The superintendent must address the development of the ACPS six-year plan for 2014-15. This will be an opportunity to review all data, address the needs of the division, and develop a plan for the next six years.

Developing the division's six-year plan provides an opportunity for the superintendent to formalize with the board and his staff their vision for the next six years. The superintendent supports more emphasis on Pre-Kindergarten and early childhood programs in the division.

RECOMMENDATION 3.3

Review school and division data to determine the academic needs of the school system and address them efficiently and effectively to provide direction for the next six years.

The superintendent's leadership, the board, the central office staff, and the schools can chart the path for improving student achievement while preparing the youngest students for a successful academic future. Educational research supports the efforts in ACPS to extend public education to preschool programs and the collaboration with Head Start. The superintendent should continue to emphasize success at the preschool level. Barnett suggests that:

- *well-designed preschool education programs produce long-term improvements in school success, including higher achievement test scores, lower rates of grade repetition and special education, and higher educational attainments. Some preschool programs are also associated with reduced delinquency and crime in childhood and adulthood; and*
- *the strongest evidence suggests that economically disadvantaged children reap long-term benefits from preschool. However, children from all other socioeconomic backgrounds have been found to benefit as well.¹*

FISCAL IMPACT

Implementing this recommendation will require no more than 40 hours total for the superintendent, supervisors, and other administrative staff to review these data. This review must be completed swiftly, however, as the division is required to submit a new six-year plan in 2014-15.

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 as well as 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 improve 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

¹ Barnett, W. S. (2008). *Preschool education and its lasting effects: Research and policy implications*. Boulder and Tempe: Education and the Public Interest Center & Education Policy Research Unit. Retrieved from <http://epicpolicy.org/publication/preschool-education>

quality and consistency. These processes and procedures must also include appropriate support and an accountability system.

FINDING 3.4

Competent and knowledgeable school leaders are in place at ACPS. The consulting team found that service to students is of high quality. Although the elementary schools are not large in terms of student numbers, the services to students are remarkable. The general education classrooms are collaborative and inclusive. Students with exceptional needs participate as often as is possible and appropriate with their general education peers.

Schools also strive to meet all accountability targets. In those elementary schools that are striving to meet the math target and are in school improvement for falling short in previous school years, the math specialist has become a valuable and critical resource. In the absence of the math specialist, math teams work together to review student data and plan appropriate instruction. The central office mathematics supervisor visits the elementary schools often and consistently provides support and information. The challenge is increasing teachers' insight and understanding of the math requirements of the Virginia Standards of Learning (SOLs). The bar has been raised significantly in math and reading for students and teachers as the SOLs have become much more rigorous in the past two years. After concepts are taught, frequent formative testing informs teachers of students' mastery or the need for re-teaching. Teachers are sensitive to their students' data and differentiate based on student responses.

Throughout the county, elementary principals monitor classroom instruction and regularly observe in classrooms. Central office staff also participates in classroom observation at the schools. Information gleaned from the observations is shared with teachers to improve the delivery of instructional strategies and student success. The emphasis in the schools is on student mastery of content. Careful review of data and collaborative planning are commonplace in every elementary school and teachers are very professionally motivated.

Regarding academic support, there are reading specialists in every elementary school, and all elementary schools except Madison Heights have met their targets on state tests in reading. The division and the schools have targeted reading and have successfully brought students to mastery in the new, more rigorous reading SOLs as reported in 2012-13 report cards.

In addition, Smart Start preschool classes served 90 students in 2013-14, and Head Start served 125. Each year, a few more preschool children are served in a program that began with only eight students. These efforts indicate the division's emphasis on early education.

Largely because of these achievements, the school principals have great respect and professional admiration for the superintendent and his staff. They recognize and appreciate the autonomy they have been given to govern their schools. Principals and teachers regret the loss of personnel in the schools but trust that the central office has been fair and equitable in distributing available resources.

The consulting team found that ACPS administrators are committed to providing effective and efficient services to children. They have accommodated themselves and their schools to the reduction in resources and have deployed their remaining assets to continue effective instructional services. The superintendent respects their professionalism and decision-making ability and allows them significant autonomy in their schools. In his book, *Good to*

Great, Jim Collins stated that good leaders “first got the right people on the bus... and then right people in the right seat.”² The right people are in the right seats in ACPS.

Collins also commented, “you must maintain unwavering faith that you can and will prevail in the end, regardless of the difficulties, AND at the same time have the discipline to confront the most brutal facts of your reality, whatever they might be.” For those schools in school improvement, Collins’ words describe their situation. They have a deep belief that the students in their schools will be well taught and that, ultimately, their performance will meet the VDOE target and they face the brutal facts of their data every day and use it to guide their decision-making.

COMMENDATION

ACPS effectively meets the academic needs of students from Pre-Kindergarten to graduation.

The professional and compassionate concern for students’ academic progress and safety is commendable and reflected in multiple findings. The professionalism of the school administrators and their staffs is admirable.

ACPS provides effective instructional services for students of all ability levels and levels of need. In addition, ACPS often provides these instructional services in excess of state requirements and normally accepted practices.

FINDING 3.5

Despite these strides in instructional services, recent cuts in school personnel have significantly reduced the support staff in all schools. These cuts have included reading and math specialists, counselors, teaching assistants, and clerks. Assistant principals may also be assigned inequitably, leading to uneven support.

As shown in **Exhibit 3.4**, only one ACPS elementary school has an assistant principal, but it is not the largest elementary school. Amelon Elementary School, which is the largest elementary school, does not have an assistant principal assigned. The number of assistant principals assigned to the high school appears excessive, resulting in a ratio of one school administrator for every 331 high school students. This ratio is lower than one of the elementary schools and is richer than resources such as the Southern Accreditation Agency recommends.

² Collins, J. (2001). *Good to Great*. HarperCollins: New York.

**Exhibit 3.4
Administrators per school**

School	Total Number		
	Principals	Assistant Principals	ADM
Amherst County HS	1.0	3.0	1,324
Amherst Education Center	1.0	-	*
Amherst MS	1.0	1.0	382
Monelison MS	1.0	1.0	546
Amherst ES	1.0	-	311
Amelon ES	1.0	-	468
Central ES	1.0	-	268
Elon ES	1.0	-	252
Madison Heights ES	1.0	1.0	421
Pleasant View ES	0.5	-	68
Temperance ES	0.5	-	87

**included in Amherst County HS ADM
Source: ACPS, 2014.*

RECOMMENDATION 3.5

Review the needs of each school, assign assistant principals equitably, and restore supporting personnel.

If the division does not restore some of its previous staffing, it is likely that academic achievement will begin to decline. Adequate support staffing is essential to the education of students of all backgrounds and classifications.

The superintendent should develop and request approval for a school administrator and support staffing plan. In addition to restoring instructional supports like specialists and counselors, the division must also review its allocation of assistant principals.

FISCAL IMPACT

The consulting team estimates that the superintendent can draft a staffing plan for school board review and approval in approximately 40 hours. Once developed, ACPS should prioritize available and emerging funds to restore administrative assistants, instructional aides, and other support to local schools. The exact fiscal impact will depend on which positions the division selects for restoration.

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, ethnicity, disability, socioeconomic status, and limited English proficiency among modern student bodies, 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 provide the structure for making appropriate decisions. These processes and procedures include meeting all mandates of federal, Commonwealth, and local requirements, ensuring equity for all students, and measuring their progress toward academic goals. 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 the educational goals of the board. The ACPS board's instruction goals and objectives are provided in **Exhibit 3.5**.

Exhibit 3.5 **ACPS board instructional goals**

Instructional Goals and Objectives

The school board shall implement:

1. programs in grades kindergarten through three that emphasize developmentally appropriate learning to enhance success
2. programs based on prevention, intervention, or remediation designed to increase the number of students who earn a high school diploma and to prevent students from dropping out of school; such programs shall include components that are research-based
3. career and technical education programs incorporated into the kindergarten through grade 12 curricula
4. educational objectives in middle and high school that emphasize economic education and financial literacy pursuant to Va. Code § 22.1-200.03
5. early identification of students with disabilities and enrollment of such students in appropriate instructional programs consistent with state and federal law
6. early identification of gifted students and enrollment of such students in appropriately differentiated instructional programs
7. educational alternatives for students whose needs are not met in programs prescribed elsewhere in the Standards of Learning
8. adult education programs for individuals functioning below the high school completion
9. a plan to make achievements for students who are educationally at risk a division-wide priority that shall include procedures for measuring the progress of such students
10. an agreement for postsecondary degree attainment with a community college in Virginia specifying the options for students to complete an associate's degree or a one-year Uniform Certificate of General Studies from a community college concurrent with a high school diploma; such agreement shall specify the credit available for dual enrollment courses and Advanced Placement courses with qualifying exam scores of three or higher
11. a plan to notify students and their parents of the availability of dual enrollment and Advanced Placement classes, the International Baccalaureate Program, and the Academic Year Governor's School Programs, the qualification for enrolling in such classes and programs, and the availability of financial assistance to low-income and needy students to take the Advanced Placement and International Baccalaureate examinations; this plan shall include notification to students and parents of the agreement with a community college in Virginia to enable students to complete an associate's degree or a one-year Uniform Certificate of General Studies concurrent with a high school diploma
12. identification of students with limited English proficiency and enrollment of such students in appropriate instructional programs

Source: ACPS, April 2014.

FINDING 3.6

The division has a good process for reviewing and improving its curriculum.

Virginia SOLs drive curriculum for all students in ACPS. Teachers participate in annual summer reviews conducted by instructional personnel from the central office to update and align curriculum changes. School administrators and professional learning teams manage curriculum implementation in the schools with oversight by central office staff. State mandated benchmark and summative testing are regularly scheduled and implemented to measure student academic success.

The division regularly schedules curriculum reviews and updates during summer months when teachers are available to provide input on what is working and what needs improving. Reviews and updates are essential for keeping pace with the requirements of SOLs and the benchmark assessments. Central office supervisors need the field experience of teachers in order to create pacing guides that can be implemented across the division. This is an example of a best practice that brings together supervisors and classroom teachers in a professional setting that promotes the achievement of all students.

COMMENDATION

ACPS annually reviews curriculum and seeks input from teachers on improving it.

FINDING 3.7

The rigor of VDOE SOLs has been significantly increased since they were introduced several years ago; at the same time, ACPS has reduced its staffing of reading and math specialists. The loss has had a particular impact in schools that have not met math targets on recent state tests.

The advent of SOLs changed mathematics in all schools, not only for students but also for teachers. The value of math specialists became even greater as their knowledge and skills supported teachers in their attempts to introduce advanced concepts at earlier times in their curricula. The rationale for math specialists is clear. The rigors of the new curriculum demand that teachers have support and professional development to understand and become experts in teaching mathematics concepts outlined in the SOLs.

Five elementary schools in ACPS receive a magnified focus in academic performance because they are in a “school improvement” classification at VDOE. Amelon, Amherst, Central, Madison Heights, and Pleasant View elementary schools are all facing increased scrutiny over their performance. The division has diverted Title I funding and hired a school improvement specialist to focus on these five schools. However, no content area specialists are available to assist these schools, and the math scores at each are suffering. **Exhibit 3.6** shows that, while all but one of the target schools have met benchmarks for English, not one has succeeded in doing so for mathematics.

Exhibit 3.6
State accreditation results for ACPS improvement schools
2013-14

School	Subject	Accreditation Benchmark	2013-14		
			1 Year Result	3 Year Result	Met Accreditation Benchmark?
Amelon Elementary	English	75	69	78	Yes (3 Year)
	Math	70	51	66	No
Amherst Elementary	English	75	73	82	Yes (3 Year)
	Math	70	65	67	No
Central Elementary	English	75	66	76	Yes (3 Year)
	Math	70	55	64	No
Madison Heights Elementary	English	75	58	71	No
	Math	70	48	56	No
Pleasant View Elementary	English	75	71	77	Yes (3 Year)
	Math	70	60	58	No
Average	English	75	67	77	Yes (3 Year)
	Math	70	56	62	No

Source: VDOE school report cards, 2014.

Math performance at all five school improvement locations is significantly deficient. The consistent underperformance indicates the need for specialized, specific help in mathematics.

RECOMMENDATION 3.7

Hire two mathematics specialists to be shared by those sites under school improvement.

Adding two math specialists would make a needed resource available to teachers. The specialists can also provide additional professional development opportunities for teachers in collaboration with the central office supervisor.

The National Council of Teachers of Mathematics wrote,

In this challenging world, those who understand and can do mathematics will have significantly enhanced opportunities and options for shaping their future... All students should have the opportunity and the support necessary to learn significant mathematics with depth and understanding. There is no conflict between equity and excellence.³

These comments are the reality of today's world and today's economy. Mathematics proficiency is essential to students' future success in post-secondary education and employment after high school. The understanding and reasoning that is required in mathematics transfers to all other adult challenges, as problem-solving skills are a lifelong need. ACPS must make further commitments to fostering mathematical success among all of its students.

³ Executive Summary - Principals and Standards for School Mathematics. (n.d.). Retrieved from http://www.nctm.org/uploadedFiles/Math_Standards/12752_exec_pssm.pdf

FISCAL IMPACT

The consulting team estimates that an annual salary for a mathematics specialist will be approximately \$32,000. Along with benefits at 21 percent of salary, the total for two specialists will be \$77,440 each year.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Add two mathematics specialists.	(\$77,440)	(\$77,440)	(\$77,440)	(\$77,440)	(\$77,440)

FINDING 3.8

Opportunities for earning high school credit in middle school are available to eighth grade students. Multiple programs are provided to prepare students for post-secondary college and career studies.

Providing opportunities for middle school students to earn high school credit provides a pathway for students to prepare for challenging Advanced Placement (AP) course work and dual enrollment in high school. The vertical teaming⁴ of teachers who are responsible for the more challenging work is enhanced when students have opportunities prior to AP and dual enrollment. Over time, more students are likely to be identified as candidates for advanced course work and become accustomed to the requirements of pre-college work in high school. High school credit in middle school also allows students time to explore electives in high school that their schedules would not otherwise allow.

COMMENDATION

ACPS awards high school credit to achieving eighth graders who take advanced classes. Students profit from the advanced work and are better prepared for AP classes and dual enrollment at the high school level.

FINDING 3.9

Teachers have taken on quasi-administrative duties due to the loss of assistant administrators and counselors; however, they are sometimes inhibited from efficiently performing these tasks because they are denied access to data reserved for administrators. In recent years positions have been eliminated at the high school. In some cases teachers have taken on extra responsibilities to ensure that beneficial programs remain.

RECOMMENDATION 3.9

Grant teachers administrative access to information in order to perform the tasks formerly completed by administrators.

⁴ A group of teachers and support staff from different grade levels, referred to as a “vertical team”, are assigned to work cooperatively to develop and implement a vertically aligned instructional program. For example, a vertical team may focus exclusively on instructional strategies and teaching delivery for mathematics across all grade levels. This alignment provides student work that is more challenging before the students have opportunities to become enrolled in AP and dual enrollment courses.

So long as teachers are assigned administrative duties, they should be provided the most efficient means to perform those duties so that they are not distracted from their primary educational responsibilities. Providing an effective means of access to administrative data will greatly expedite the execution of their administrative tasks.

FISCAL IMPACT

Implementing this recommendation will require minimal efforts on the part of central office staff. Teachers that are assigned additional administrative duties will need only provisions to access student data; such provisioning can be accomplished quickly. If deemed necessary, additional time may be provided to train teachers on accessing and handling these data.

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 ages two through 21 with disabilities. 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.⁵

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.⁶

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

⁵ *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

⁶ Ibid.

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 support according to a written IEP;
- annual program review;
- three-year re-evaluation; and
- dismissal from the special education program.

FINDING 3.10

A special education program operates in every school. The *Individuals With Disabilities Act (IDEA)* requirements are met across the division. Low incidence populations are served in specific schools and special transportation is provided. In light of recent staffing cuts, the teacher aides that remain are assigned to exceptional students who are non-ambulatory or need assistance with feeding and toileting. *IDEA* requirements require annual updates to IEPs for every exceptional student. All IEPs are current and timelines have been met. Tri-annual reevaluations of exceptional students required by *IDEA* are also up to date.

The special education population in this division is well served in the regular classroom by collaborative teachers who work and plan with general education teachers daily. Inclusion teachers also work with general education teachers to support students who require more assistance to be successful in the general education classroom. A special education teacher may perform as a collaborative instructor or an inclusion teacher, depending on the needs of the students for whom he or she is responsible. Lead teachers and case managers are in place and responsible for ensuring required timelines are met and they have been successful.

Planning and scheduling the delivery of services is also vital. ACPS provides free and appropriate service and is not only in compliance with the *IDEA* as reauthorized, but also complies with the spirit of the reauthorization. Early intervention and child study teams have ensured that only those students who meet all eligibility requirements are referred for evaluation. The RTI process is in place, adhered to, and has provided students with the appropriate support that allows for success in academic subjects. Intense and careful review

of students' responses allows teachers to differentiate individualized instruction to meet the individual needs of students by re-teaching using different strategies tailored to the students' strengths until mastery is reached.

The RTI model, when implemented with fidelity as it has been in ACPS, ensures that all students know academic success. The budgets in **Exhibit 3.7** illustrate the division's continuous commitment to quality service to special education students.

**Exhibit 3.7
Budgets for special programs**

	2010-11	2011-12	2012-13	2013-14	% Change
SPED Elementary	\$ 1,486,800	\$ 2,531,541	\$ 2,448,749	\$ 2,624,209	76.5%
SPED Secondary	\$ 2,542,945	\$ 2,283,052	\$ 2,424,376	\$ 2,595,570	2.1%
Gifted Elementary	\$ 137,339	\$ 129,823	\$ 88,914	\$ 91,001	(33.7%)
Gifted Secondary	\$ 180,040	\$ 120,398	\$ 138,799	\$ 140,853	(21.8%)
Secondary Vocational	\$ 1,400,560	\$ 1,527,062	\$ 1,384,535	\$ 1,398,632	(0.1%)
GED	\$ 55,177	\$ 51,818	\$ -	\$ -	-
Summer School	\$ 81,505	\$ 74,099	\$ 108,045	\$ 81,859	0.4%
Adult Education	\$ -	\$ -	\$ 124,731	\$ -	-
Preschool	\$ 165,113	\$ 3,728	\$ -	\$ -	-
VA Preschool Initiative	\$ 445,833	\$ 385,151	\$ 439,306	\$ 449,635	0.9%
School Counselors Elementary	\$ 341,159	\$ 346,374	\$ 371,052	\$ 307,325	(9.9%)
School Counselors Secondary	\$ 691,428	\$ 683,291	\$ 704,693	\$ 723,634	4.7%
Social Worker/ Accountability Coord.	\$ 169,438	\$ 153,486	\$ 189,870	\$ 195,847	15.6%
Homebound	\$ 128,576	\$ 142,495	\$ 143,470	\$ 166,089	29.2%
Total	\$ 7,825,913	\$ 8,432,318	\$ 8,566,540	\$ 8,774,654	12.1%

Source: 2013-14 Amherst School Operational Budget.

COMMENDATION

ACPS provides exemplary special education services to its students.

ACPS both meets the requirements of the laws and takes deliberate steps to go above and beyond them. Principals, special education teachers, general education teachers, and teacher and student assistants are commended for their dedicated concern and attention to the special education populations in every school.

FINDING 3.11

Itinerant teachers serve gifted and talented students in every school. Gifted high school students receive advanced academic work with high achieving students in dual enrollment as well as the Governor's School off campus. Advanced Placement classes serve gifted and high achievers. Programs for talented students are offered in the fine arts department in conjunction with the offerings to general education students. The opportunities for middle and high school talented and gifted (TAG) students are offered through advanced academics which allow middle school students to advance and acquire high school credit while in eighth grade. Upon entering high school, students are met with a plethora of Advanced Placement offerings in 10 courses including Biology, Calculus, English

Language and Composition, English Literature and Composition, Environmental Science, Physics, Psychology, United States Government and Politics, and United States History.

In addition to AP classes, TAG and high achieving students may attend dual enrollment classes at the nearby community college for high school credit towards graduation and college credit applicable to a degree path. The Governor's School, also housed at the community college, is open to TAG and high achieving students through an application and selection process. ACPS has students in the program who are succeeding at this higher academic level.

Students in elementary schools are served by an itinerant teacher of TAG. She travels from school to school and students are scheduled for pullout, which means they leave their regular classroom and join a smaller group of TAG identified students for planned activities that extend their regular class academics.

TAG services have been compacted due to reductions in staff, but all identified TAG students are served. The supervisor of TAG has implemented an additional screening to identify gifted students by adding screening at sixth grade. All students in ACPS are screened in second grade. The supervisor recognized that some children mature academically later than others. The second grade screening could miss those children. Thus, the division rescreens students in sixth grade to catch any students who emerged as talented and gifted after second grade.

The literature relative to education of the gifted is rife with concerns regarding failure to identify and provide services for TAG students early. Unidentified TAG students are often the students who are expected to keep themselves busy because they finish first, make few mistakes, and acquire important concepts quickly. Without early identification, these students may never be challenged academically in the early grades. Providing appropriate curriculum and instruction is important to ensure they continue to acquire skills and concepts that prepare them for the rigorous advanced academics in secondary school. Through early identification, appropriate curriculum is identified and instruction can be differentiated to better fit their needs. Screening again in sixth grade is another opportunity for the division to identify older students who may not have been identified in second grade but have demonstrated academic ability beyond the norm. Giftedness does not exclude children from the need for at least the same counseling and support that all children need.

COMMENDATION

ACPS provides services for their talented and gifted students beginning with a division-wide screening at second grade and continuing with rescreening in sixth grade, providing multiple opportunities for the identification of and service to advanced students.

FINDING 3.12

English-as-a-second-language (ESL) students receive service as needed at their home school. Among the 13 students who receive ESL service, 11 have achieved independent status and attend regular classrooms. Only two require more intense service from the ESL teacher, who is itinerant. The ESL teacher also works closely with non-English speaking parents when needed.

One teacher serves the small number of ESL students in all ACPS schools. The teacher also assists the parents of ESL students. Regular teachers report that communicating with the parents of ESL students is their greatest challenge, and the support of the ESL teacher is very helpful and welcome. In addition to supporting students, the ESL teacher also provides an adult ESL course two days a week at Amelon Elementary School.

COMMENDATION

ACPS provides exemplary and comprehensive ESL support.

Extending the service to adults with limited English proficiency and supporting classroom teachers in their effort to communicate with limited or non-English speaking parents is very helpful to teachers and students. The ESL teacher is responding to a variety of student needs from kindergarten to high school and beyond in a number of different schools.

FINDING 3.13

ACPS provides for the most at-risk students in a spacious, pleasant building with a staff committed to the students' academic, emotional, and behavioral needs. The most at-risk students in the division are served at the Amherst Education Center (AEC) by a principal who is committed to providing the support necessary to ensure every student graduates. His staff includes core teachers knowledgeable in delivery of instruction to under-motivated students who have been unsuccessful in other school settings.

Alternative educators provide different means of attaining the objectives of regular education and meeting students' needs school-wide. The principal reports that the school has been successful in redirecting students. The entire staff has been trained to work with students to help them anticipate and identify antecedents of behaviors that become problematic, redirect the behavior, and avoid the consequences of unacceptable behavior. There are steps in the process, but the goal is to teach troubled students to assume responsibility and control of themselves in classroom and social settings. Students have responded to these strategies, and success has become frequent. In addition to behavioral support, all students are attending classes in core subjects tracking them towards high school graduation. Differentiated instruction is practiced in academic classes to ensure the wide ability range represented at the center is met for all students.

Currently, there are 75 students enrolled at AEC. Of these, 46 are high school students and nine have IEPs. The center also serves 13 middle school students, six of whom have IEPs. In addition, seven students are working for the GED high school equivalency certification. Homebound instruction serves five students, four with IEPs. Only five students do not have a choice to return because of discipline infractions that have occurred at the center.

According to the principal, the goal of AEC is to return all students to their home school at the end of the first semester or by the end of the school year. About half of the students at the Center earn the opportunity to return to their home school at the end of each semester. Some students choose to remain after experiencing academic success that they have not experienced in their home school. Alternative educators provide different means of attaining the objectives of regular education and meeting students' needs school-wide. The principal reports that the school has been successful in redirecting students.

COMMENDATION

The division provides a well-planned, spacious, inviting building for the delivery of educational services to the most at-risk students by a dedicated staff in a time of limited resources.

This chapter reviews the human resources functions of Amherst County Public Schools (ACPS). 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

There is no task more complex in a school division than managing human resources functions. At times this management challenges understanding because of the complexity of issues and functions that it faces. Human resources management (HRM) is a professional discipline that deals with all aspects of legal compliance, compensation, classification, benefits, certification, accreditation, performance management, and collective bargaining.

The human resources function is generally responsible for

- recruiting employees;
- overseeing the interviewing, selection, and processing of new employees;
- retaining employees;
- processing promotions, transfers and resignations;
- determining and maintaining compensation schedules;
- planning and forecasting personnel needs;
- maintaining complete employee records;
- developing and maintaining job descriptions;
- handling employee complaints and grievances;
- developing personnel policies; and
- ensuring that related laws and regulations are followed.

Key to the efficient and effective management of an HR department is organizational structure and strategic leadership. Ultimately, the HR operation is a customer service effort because its staff must deal with internal and external job applicants, current employees, and oftentimes employees who have left the organization or division. In order to be able to deliver the proper level of support and assistance, the department must be organized and staffed appropriately and have a proper division of labor among its staff.

Employees across the division, regardless of their location or assignment, must know that if they have a question pertaining to their job, they will receive accurate and consistent information. Staff of the organization must feel confident in the abilities of HR to address all personnel-related issues and challenges that are common in a rural school district setting. Questions about the retirement system, requirements for recertification, and division-provided benefits are easily and expeditiously answered by a call or visit to the local HR office, requiring little time and only a short traveling distance.

Effective personnel management requires compliance with equal employment opportunity (EEO) statutes and other applicable federal and state laws in addition to a comprehensive understanding of the *Fair Labor Standards Act (FLSA)*, the *Family Medical Leave Act (FMLA)*, and the *Americans With Disabilities Act (ADA)*. As part of human resources management, it is essential to establish fair and workable policies, procedures, and training programs that are important to recruiting and retaining competent staff.

The most important factors in an operational study of a school division are focused on the impact of HR management, operations, and budget. In a recently published online white paper, the American Association of School Administrators (AASA) explains that while most public and private organizations and businesses budget 35 to 40 percent of their funds for personnel and benefits, the comparable number in public schools is, on average, more than double at 80 and 85 percent.¹

Funding or resources availability for school divisions is becoming both less and more restrictive; therefore, HR becomes the focus of change because the fiscal impact can be significant. Since the purpose and mission of HR are customer service efforts, the staff must ensure that the personnel responsibilities of the division are performed in the most efficient and effective manner. Employee-related costs represent the majority of ACPS expenditures.

Because of their number, teachers represent both the largest employee group and therefore the majority of ACPS expenditures. Teacher positions are allocated to schools in ACPS using the Virginia Department of Education (VDOE) Standards of Quality (SOQ) staffing standards or formulas. **Exhibit 4.1** shows the 2012-13 staffing levels of ACPS teachers and ratios of students to school-based teachers when compared with the eight identified peer school divisions as well as the geographically close divisions. Reflecting the number of “teacher-scale” positions (i.e., paid off the salary schedule for teachers) the table also includes other types of classroom teachers (music, art, physical education, pre-K and vocational education) and non-classroom positions requiring teacher licenses (guidance counselors, media center specialists, librarians).

When compared with the peer divisions, ACPS had more teaching positions than the average, especially at the secondary level. These numbers explain why the student to teacher ratio in ACPS was lower than the average. In grades K-7, with the exception of Lynchburg City, ACPS had a lower student to teacher ratio than other divisions in the geographical area. In grades 8-12, geographically, both Bedford and Campbell divisions had lower numbers while the remainder had higher.

¹ Noelle, E. AASA White Paper: School Budget 101. Retrieved from http://www.aasa.org/uploadedFiles/Policy_and_Advocacy/files/SchoolBudgetBriefFINAL.pdf

Exhibit 4.1
2012-13 teacher staffing levels

School Division	Elementary Teaching Positions	Secondary Teaching Positions	Students per Classroom Teacher	
			Grades K-7	Grades 8-12
Caroline County	169	131	15.9	10.8
Carroll County	212	124	12.5	12.2
Dinwiddie County	191	139	14.1	11.3
Mecklenburg County	193	119	15.3	14.8
Pulaski County	254	125	10.7	13.7
Russell County	223	114	11.3	11.1
Smyth County	255	170	11.2	10.5
Wythe County	212	105	12.6	14.5
Peer Division Average	214	128	13.0	12.4
Amherst County	217	176	12.7	10.0
Appomattox County	99	66	13.7	12.5
Bedford County	360	417	16.8	9.9
Campbell County	276	344	17.3	9.3
Lynchburg City	526	266	9.9	10.9
Nelson County	86	70	15.6	10.8

Source: 2012-13 VDOE Superintendent's Annual Report.

Exhibit 4.2 presents a comparison of the number of school-based administrators, teachers, teacher aides, and support staff per 1,000 students for ACPS and the peer divisions as well as neighboring divisions. The number of ACPS principals and assistant principals per 1,000 students was second from the lowest of the peers and the lowest of the surrounding divisions. On the other hand, the number of teachers ranked second from the highest number per 1,000 among the peers as well as the geographical list. These data suggest that on average teacher staffing for school-based positions was above the peer median.

The number of instructional assistants in ACPS was 1.3 positions above the peer average and third highest (after Caroline, Pulaski, and Mecklenburg). The number showing for “others” in ACPS was one-half position higher than the peer average and also tied with Dinwiddie as second highest (after Wythe County).

Exhibit 4.2
2011-12 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
Caroline County	2,681	1,405	3.1	70.2	17.1	4.6
Carroll County	2,645	1,511	3.7	78.1	12.7	4.9
Dinwiddie County	2,705	1,572	4.0	77.2	9.1	5.4
Mecklenburg County	2,749	1,764	4.1	66.5	18.6	4.5
Pulaski County	2,715	1,712	4.0	66.5	18.6	4.5
Russell County	2,531	1,602	5.4	83.9	16.6	4.6
Smyth County	2,851	1,781	4.7	88.9	12.3	5.3
Wythe County	2,668	1,519	3.9	73.5	15.1	5.6
Peer Division Average	2,693	1,608	4.1	75.6	15.0	4.9
Amherst County	2,533	1,750	3.3	87.6	16.3	5.4
Appomattox County	1,359	819	3.7	72.2	14.5	4.4
Bedford County	6,064	4,119	3.4	73.9	14.8	4.9
Campbell County	4,776	3,189	4.2	75.5	14.3	3.9
Lynchburg City	5,179	2,887	3.7	88.2	21.2	6.3
Nelson County	1,171	751	4.3	79.1	15.8	3.1

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

The ACPS costs per student when compared to peers and neighboring divisions is shown for the past two years in **Exhibit 4.3**. In 2012-13, instructional spending per pupil was second highest among the peers but only fourth highest among the neighboring divisions. Administrative spending per pupil for ACPS was second highest after Pulaski among peers and third highest after Nelson and Appomattox among neighboring divisions.

**Exhibit 4.3
2012-13 cost per pupil**

School Division	2011-12		2012-13	
	Instruction Spending per Pupil	Administration Spending per Pupil	Instruction Spending per Pupil	Administration Spending per Pupil
Caroline County	\$ 6,652	\$ 144	\$ 7,249	\$ 165
Carroll County	\$ 6,792	\$ 188	\$ 7,305	\$ 203
Dinwiddie County	\$ 6,580	\$ 178	\$ 6,771	\$ 198
Mecklenburg County	\$ 6,776	\$ 244	\$ 7,120	\$ 222
Pulaski County	\$ 7,414	\$ 309	\$ 7,263	\$ 330
Russell County	\$ 6,619	\$ 219	\$ 6,659	\$ 251
Smyth County	\$ 7,422	\$ 211	\$ 8,460	\$ 268
Wythe County	\$ 6,880	\$ 141	\$ 7,129	\$ 155
Peer Division Average	\$ 6,892	\$ 204	\$ 7,245	\$ 224
Amherst County	\$ 7,393	\$ 279	\$ 7,523	\$ 303
Appomattox County	\$ 6,212	\$ 468	\$ 6,578	\$ 476
Bedford County	\$ 6,447	\$ 143	\$ 6,810	\$ 145
Campbell County	\$ 6,600	\$ 348	\$ 8,707	\$ 185
Lynchburg City	\$ 8,026	\$ 255	\$ 8,391	\$ 300
Nelson County	\$ 7,769	\$ 505	\$ 8,166	\$ 526

Source: 2012-13 VDOE Superintendent's Annual Report.

The total position count of all employees in ACPS dropped by 24.2 due to budget reductions at the beginning of 2013-14. **Exhibit 4.4** shows a comparison between the net losses and gains in positions by schools and departments. The numbers have been rounded.

**Exhibit 4.4
ACPS position total comparison (rounded)**

School/Department	2012-13 Number of Employees	2013-14 Number of Employees	Difference
Amherst County High	142	137	(5)
Amherst Education Cntr.	19	18	(1)
Amherst Middle	54	55	1
Monelison Middle	70	69	(1)
Amelon Elementary	59	61	2
Amherst Elementary	44	38	(6)
Central Elementary	56	53	(3)
Elon Elementary	41	40	(1)
Madison Heights Elem.	57	60	3
Pleasant View Elem.	18	14	(4)
Temperance Elementary	18	14	(4)
Central Office	24	24	(0)
SBO Administration	17	16	(1)
School Board Members	7	7	0
Other	129	126	(3)
Total	755	732	(23)

Source: ACPS Assistant Superintendent – HR and CFO, April, 2014.

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

- The ACPS HR department has performed exemplary work in the areas of personnel, as measured by established HR metrics for performance and effectiveness.
- The ACPS board, superintendent, principals, and the leadership team are commended for the abundance of opportunities they provide to show their appreciation of the ACPS employees and to recognize them for their service.
- The commitment of employees to Amherst schools and its students as measured simply by their longevity or time-in-service is truly laudable.
- Despite having limited funding available for professional development, ACPS principals and central office instructional leadership teams are commended for their obvious commitment to staff development or teacher training in compliance with the School Improvement Planning (SIP) process and its ultimate effect on student achievement.

The consulting team also made nine recommendations in this chapter:

- Implement a full-scale document imaging system for record storage, retrieval, and maintenance.
- Reduce by half the current funding structure of the tuition reimbursement program because of low need or participation in the program.
- Discontinue providing the employee assistance program since the participation rate is low.
- Transfer the responsibility of paying the teacher license renewal fee to the individual ACPS teacher.
- Reformat and review content of current job descriptions, update missing information, and publish them online.
- Provide an online employee handbook.
- Reinstigate the plan to increase the number of teachers in the ACPS division who become National Board Certified Teachers even though no division funding is available.
- Ensure transparency of the budgeting and use of professional or staff development funds by extrapolating specific training planned from individual school improvement plans.
- Revise the administrative salary schedule for 2013-14 to ensure that all job titles or positions are listed next to the salary level and remove positions listed that no longer exist in the administrative organizational structure.

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	2014-15	2015-16	2016-17	2017-18	2018-19	Total
4.2 Implement	(\$10,000)	(\$10,000)	\$0	\$0	\$0	(\$20,000)

	document imaging system.						
4.3	Reduce by half the funding for the tuition reimbursement program.	\$12,262	\$12,262	\$12,262	\$12,262	\$12,262	\$61,310
4.4	Discontinue the EAP.	\$14,400	\$14,400	\$14,400	\$14,400	\$14,400	\$72,000
4.5	Transfer paying license renewal fees to teachers.	\$2,050	\$2,050	\$2,050	\$2,050	\$2,050	\$10,250

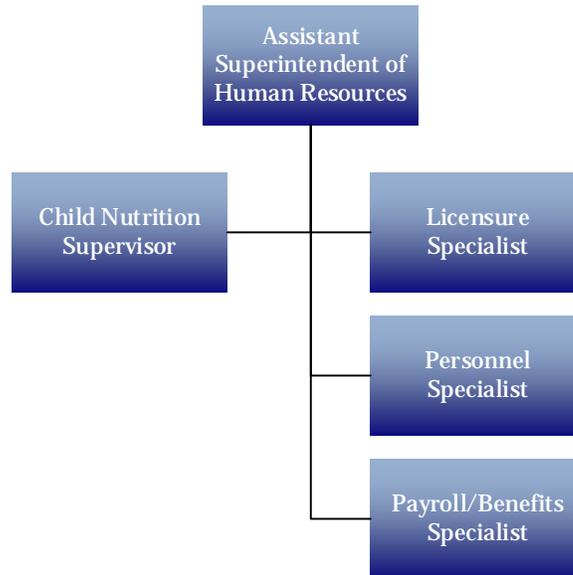
A. Organization and Management

The HR department of ACPS functions under the leadership of an assistant superintendent of HR, the only assistant superintendent in the division, a position that was filled this fiscal year after the former assistant superintendent retired. The new assistant superintendent was previously the ACPS director of instruction. The only other department that reports to HR is child nutrition services. Three clerical assistants work in the ACPS HR office:

- licensure specialist
- personnel specialist; and
- payroll/benefits specialist.

The payroll/benefits clerk position is budgeted to HR even though the bulk of her work time is spent in fiscal or payroll-related matters. Even Aesop, the substitute caller system, is used by this clerk for payroll purposes to sign up substitutes, compensate them, to record and track regular employee leaves and absences, and to account for the use of substitute employees. **Exhibit 4.5** provides the organizational structure of the human resources department.

Exhibit 4.5
Human resources department organization



Source: Created by Prismatic, April 2014.

Exhibit 4.6 presents actual expenditures for the department of HR from 2009 to 2011 along with HR budget data for 2012 and 2013. Totals per year show the fluctuations in amounts budgeted over the span.

Exhibit 4.6
Human resources expenditures (2011 to 2014)

Description	2011 Actual	2012 Actual	2013 Actual	2014 Budgeted
Administrator Salary	\$ 98,748	\$ 98,748	\$ 104,427	\$ 107,560
Clerical Salaries	\$ 55,944	\$ 57,483	\$ 59,583	\$ 65,127
FICA	\$ 11,588	\$ 11,451	\$ 13,830	\$ 13,211
Virginia Retirement	\$ 13,646	\$ 17,436	\$ 18,975	\$ 20,135
Health	\$ 9,245	\$ 13,046	\$ 8,813	\$ 10,640
Group Life	\$ 428	\$ 431	\$ 1,937	\$ 2,055
Health Care Credit	\$ 917	\$ 923	\$ 1,806	\$ 1,918
Leave Payout	\$ 608	\$ 0	\$ 20,848	\$ 749 ²
Professional Services ¹	\$ 108,593	\$ 92,450	\$ 90,808	\$ 38,800
Printing/Recruitment	\$ 238	\$ 4,720	\$ 1,308	\$ 1,000
Advertising/Recruitment	\$ 5,131	\$ 749	\$ 5,514	\$ 0
Travel	\$ 2,022	\$ 4,864	\$ 6,297	\$ 6,520
Office Supplies	\$ 0	\$ 0	\$ 700	\$ 0
Total	\$ 307,108	\$ 302,301	\$ 334,846	\$ 274,458

Source: ACPS CFO, April 2014.

¹Background checks, license renewal, employee recognition, digital imaging of records, etc.

²Worker's compensation in this instance

The Society of Human Resource Management (SHRM), using industry-wide, leading HR and organizational metrics, provides formulas for benchmarking the efficiency and effectiveness of an HR operation, using a database of more than 1,500 organizations that

includes some public school systems. In 2012, SHRM released its Human Capital Benchmarks Report detail of measurements and results.²

The consulting team used data provided by ACPS staff and the application of the SHRM metrics to calculate the total amount of HR expenses as a percentage of the total ACPS operating expenses for the past three years. **Exhibit 4.7** reflects these data. Although SHRM does not suggest a specific percentage of the budget to spend on HR functions, ACPS's spending on HR is low.

Exhibit 4.7
HR expenses as a percentage of ACPS operating costs

Year	Total Operating Cost	HR Expenditures	HR Percentage
2011 Actual	\$ 46,042,126	\$ 307,108	<1%
2012 Actual	\$ 47,310,104	\$ 302,301	<1%
2013 Actual	\$ 46,172,352	\$ 334,846	<1%
2014 Budgeted	\$ 47,203,155	\$ 274,458	<1%

Source: ACPS CFO, April 2014.

A SHRM metric that assists in determining the efficiency of an HR department is the *HR expense per full-time equivalent (FTE) metric* that shows the amount of HR dollars spent per FTE. Using the amount budgeted for 2013-14 (\$274,458) and the actual April 2014 total employee count (720), the projected cost will be \$381 in ACPS. The 2012 SHRM benchmarking study reports that the HR expense per FTE rate remained relatively stable at a median of \$1,174.³ This is much higher than what ACPS is spending.

Another study on HR effectiveness was reported by The Hackett Group in September 2013 showing that companies it defined as “world class” – the top 25 percent of companies among the thousands that Hackett studies – spent \$1,390 HR dollars per employee annually. The Hackett study found that these top companies spent 27 percent less than median companies on HR.⁴ The cost of operating HR in ACPS is considerably less per FTE. **Exhibit 4.8** displays the SHRM and Hackett metrics alongside their corresponding ACPS amount.

Exhibit 4.8
Metrics to analyze HR efficiency based on spending per FTE

Metric	HR Expenditures per FTE
SHRM	\$ 1,174
Hackett	\$ 1,390
ACPS	\$ 381

Source: SHRM, The Hackett Group, and ACPS, April 2014.

² Human Capital Benchmarks Report. (2012). *Society of Human Resource Management*. Retrieved from <http://www.shrm.org>

³ Human Capital Benchmarks Report. (2012). *Society of Human Resource Management*. Retrieved from <http://www.shrm.org>

⁴ Bression, Nathalie and Schneider, Lynne. How leading human resources organizations outperform their peers. The Hackett Group: September, 2013.

FINDING 4.1

Only four full-time employees operate the ACPS HR department: one assistant superintendent and three clerical assistants: one licensure specialist, one personnel clerk, and one payroll/benefits clerk. Turnover in the department is low. The combined total years these employees have been assigned to HR is 20 years. Other employees interviewed individually or in focus groups lauded HR employees for their loyalty, efficiency, customer service, and their promptness in responding to requests.

The HR office is the first office that visitors to the ACPS administrative center come to. As a result, the two clerks who sit in the outer office of HR perform the unassigned tasks of being the receptionists for the school board office. Much of these clerks' work responsibilities are interrupted by unexpected, walk-in callers. Two of the three clerical positions share clerical duties in addition to other specific office functions. The third clerk who is responsible for benefits, payroll, substitute teachers database and call-out system, and leaves and absences has an office adjacent to the CFO.

Additional responsibilities of all three HR support staff include:

- managing the teacher licensing and renewal function;
- operating the Winocular online application system, tracking applicants, connecting with hiring managers, facilitating interviewing and hiring;
- performing background checks and fingerprinting new employees;
- filing and maintaining confidential employee records;
- inputting employee information into the personnel database and setting up payroll records;
- coordinating the division's employee benefits program and giving orientations;
- operating and maintaining the ACPS Aesop employee absence reporting system and substitute teacher call system;
- participating in new teacher/new employee orientations;
- orienting new employees to the Virginia Retirement System; teacher licensing rules and renewals; and the Aesop;
- preparing job postings and managing the application process and hiring procedures;
- arranging for division-sponsored job fairs;
- responding to court subpoenas regarding employment documents;
- maintaining confidential employee information files;
- updating the staff directory; and
- working with customers via email, telephone, or in person.

The varying tasks include performing criminal background checks, acting as a notary for the division, and processing *Family and Medical Leave Act (FMLA)* forms. When compared to that of peer school divisions (**Exhibit 4.9**), the ratio of all staff in ACPS who operate HR services to the number of employees that they serve was third lowest of the peers. Ratios of both Russell and Smyth counties caused the peer division average to be skewed.

**Exhibit 4.9
Comparison of HR Department staffing with peer divisions**

Division	Total Employees (FTE)	Employees Assigned to HR	Ratio HR : Employees
Caroline County	598	3.0	1:199
Carroll County	674	3.0	1:225
Dinwiddie County	586	2.5	1:234
Mecklenburg County	699	2.0	1:350
Pulaski County	616	3.0	1:205
Russell County	667	1.2	1:556
Smyth County	718	2.0	1:359
Wythe County	613	2.0	1:307
Peer Division Average	646	2.3	1:323
Amherst County	695	3.0	1:231

Source: 2011-12 VDOE Superintendent's Annual Report, division websites, May 2014.

** The number does not include benefits, payroll, or mailroom clerks. No FTE assigned for HR functions covered by 0.5 positions assigned to other division positions or functions.*

The consulting team asked the assistant superintendent for HR, the superintendent, and the CFO if additional staff was needed in HR. All three said the current number of HR staff was sufficient. During individual interviews and focus groups, the consulting team heard only words of praise, admiration, and appreciation for the personnel assigned to the HR function. The participants also lauded the customer service and especially the immediacy of responses that the HR provided to employees' inquiries.

COMMENDATION

The ACPS HR department has performed exemplary work in the areas of personnel, as measured by established HR metrics for performance and effectiveness.

In all areas of its responsibilities as measured by SHRM and other professional HR metrics, the staff assigned to the HR office of ACPS score satisfactorily, especially when the sheer volume of work, functions, and operations of HR are considered. The employees of ACPS are well-served by HR.

FINDING 4.2

Storage of employees' personnel records within the HR office does not consistently meet industry standards for storage and security. Moreover, paper personnel files offer ACPS a multitude of challenges. Although HR has recently begun to scan and create electronic files of personnel folders of former employees, more effort and commitment is needed to convert HR personnel records completely to a paperless, electronic environment. Currently, these files take up huge volumes of physical space. Paper-based processes can be reduced in virtually all of the HR functions; relying on electronic data assistance should be the first step.

Official personnel records of active employees are stored in 11 letter-sized file cabinets in a room across the main hallway serving administrative offices of ACPS and across from the entrance to the HR office where customers or clients enter the HR office. These file cabinets



have no locking mechanisms, and they are neither fire-rated nor waterproof-protected. During the first two days of the consulting team's visit, the only time they were secured from unauthorized access was when the records room was locked for the evening. At times during those work days, the door was left standing open. When questioned, HR clerks told the consulting team that the door to this room was left unlocked or open for most of the work day in order for other central office staff to use the HR photocopier because of its accessibility, despite having other copiers assigned for their use. Occasionally, a laminating device in the same room is also used by non-HR staff. Customarily, when the HR clerks would leave the office for breaks, for lunch, or for errands, the file room was left vacant and unlocked, compromising the security of the personnel records. After the consulting team discussed the potential for a security breach with the HR clerks, the door was observed to be both closed and locked on subsequent days of the consulting team's visit.

Amherst 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, accessibility, and storage of these files to increase their confidentiality. These critical areas should be addressed.

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, and there is a 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 providing personal information gleaned from the records to enquirers who have a legitimate reason for accessing the records.

There are no federal regulations, specific Virginia laws, or ACPS board policy regarding the manner and security of how HR personnel files or folders, *per se*, are stored. However, there are some industry best practices.

In they are not electronic, 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 by authorized persons. 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.

Many school divisions in Virginia and elsewhere are moving away from physical personnel files and adopting electronic recordkeeping systems to ensure security, accuracy, and consistency while also saving storage space.

RECOMMENDATION 4.2

Implement a full-scale document imaging system for record storage, retrieval, and maintenance.

An electronic document imaging system provides the HR office the ability to reduce paperwork and recordkeeping errors as well as to significantly improve efficiency. By converting the personnel files of former employees to electronic storage, the ACPS HR has

taken major steps to eliminate the need for warehousing operations and facilities to store and turn over voluminous paper records. In addition, the electronic records are available instantaneously, eliminating time spent sorting through hard copy files.

Accuracy is also improved via a digital document management system. These systems make it much easier to determine when documentation is missing or if information is needed to complete a personnel file. Applications for employment along with copies of required documents such as transcripts and licenses already arrive at the HR office electronically through the use of Winocular, the online applicant tracking system. However, HR clerks currently download and print these documents to paper for dissemination to hiring managers and ultimately for inclusion in the personnel folder.

The same or similar contractor, such as the one HR currently uses to convert the personnel records of former employees to digital media, can also be used to convert personnel files of current employees. HR will have in place software that will facilitate the retrieval of these electronic files as needed. That process can be expanded to include current documents.

The two personnel clerks spend a great deal of time in the early spring when they produce hard copies of annual contracts for all 720 employees to sign and return to the HR office. It would be more efficient if a digital copy of the contract was emailed to each employee for an electronic signature and returned electronically. The electronic form should be designed so that the user can fill them in by tabbing or clicking through the document. Replacing hard copies of the most commonly used HR forms with a document imaging system combined with electronic form completion would significantly decrease processing time.

Currently, the division’s copy of the teaching license of each teacher is maintained inside three-ring binders behind the desk of the licensure specialist in the HR office rather than being safely stored within the teacher’s personnel folder. Digitized copies of these licenses would afford the same ease of availability as well as more secure storage.

If the division opts not to implement full-scale document imaging, it should place all personnel file folders in fire-resistant and waterproof cabinets and ensure that the room where files are kept is locked during both work and evening hours.

FISCAL IMPACT

Implementation costs for ACPS can vary between \$10,000 and \$20,000, depending on the scale of the document transfer that takes place. Cost can be reduced if ACPS HR staff participates in the scanning process. Cost can be reduced or even eliminated if present technology resources (i.e., multi-function scanners/printers) are used for the effort without purchasing or leasing new equipment. A two-year contract for \$20,000 worth of document imaging services and equipment leasing would spread the cost over two fiscal years as shown below.

Recommendation	2015-16	2016-17	2017-18	2018-19	2019-20
Implement document imaging system.	(\$10,000)	(\$10,000)	\$0	\$0	\$0

FINDING 4.3

One of the ACPS employee benefits programs for full-time licensed teachers is tuition reimbursement. In 2013-14 the division budgeted \$24,524 for the program that



provides \$232.50 per three-hour course up to a maximum of \$465 per year. Through April 30, 2014, 17 reimbursement claims were paid. Three of the 17 claims came from three employees who had met the division's maximum.

Board policy GBP (September 2006) provides "A tuition reimbursement program has been established to provide employees with tuition assistance in order to increase their competence and ability to contribute to the achievement of division goals." Information about this program is also provided on the HR webpage, and a one-page flyer is provided to new teachers in their orientation package. Regulation GBP says that all full-time employees are eligible. However, of the 720 ACPS employees, only 14 teacher-licensed employees, or less than one percent of all employees, elected to use it to pay for tuition or fees associated with teacher competency examinations, literacy assessments, or national board certification applications.

Teachers who receive higher degrees receive more compensation or a higher salary through the stipends available to teachers on the teacher pay scale. Theoretically, it can be argued that this additional compensation over the tenure of their employment in ACPS is tuition reimbursement for the coursework required to obtain a master's or even higher degree.

As well, if the division were requiring employees to take courses to increase their proficiency or skills in the work place, then a tuition reimbursement plan would be necessary. The consulting team found no evidence that any employee was being required to enroll in such courses or programs.

RECOMMENDATION 4.3

Reduce by half the current funding structure of the tuition reimbursement program because of low need or participation in the program.

Individual employees representing both licensed and classified employees who participated in private interviews and focus groups with the consulting team did not identify the tuition reimbursement program as a perk that they enjoyed, nor an attraction that caused them to apply for employment in ACPS. In addition, teachers new to the division this year did not identify the program as an especially critical factor in their decision to contract with ACPS.

FISCAL IMPACT

The reimbursement per three hours course would drop to \$116.25 while the maximum amount would reduce to \$232.50. The total amount budgeted for potential use would be set at \$12,262.

Recommendation	2015-16	2016-17	2017-18	2018-19	2019-20
Reduce by half the funding for the tuition reimbursement program.	\$12,262	\$12,262	\$12,262	\$12,262	\$12,262

FINDING 4.4

ACPS provides at no cost to its employees an EAP (employee assistance program) for those in need of counseling whenever they have experienced a personal trauma. The division annually budgets \$14,400 per year for the Employee

Assistance Program of Central Virginia, which provides this service. According to a year-end report (June 2013) provided by the agency to HR, 13 ACPS employees participated in the EAP program, two of which were dependents or family members of employees.

The report does not show the number of cases, if any, that may have been continued from a previous reporting period. During the reporting period, less than one percent of eligible ACPS employees sought assistance from the division’s EAP program.

EAPs are voluntary worksite-based programs and/or resources designed to benefit both employers and employees in addressing productivity issues by helping employees identify and resolve personal concerns that affect job performance. They offer free and confidential assessments, short-term counseling, referrals, and follow-up services to employees who have personal or work-related problems affecting their productivity. Through prevention, identification, and resolution of these issues, EAPs enhance employee and workplace effectiveness. They are important tools for maintaining and improving employees’ health and productivity.

Information about the Amherst EAP is provided on the HR webpage. It is also provided to new employees as a printed brochure published by the EAP vendor.

Many school divisions, other public or governmental entities, and private enterprise companies utilize EAPs to address employee performance issues wherever there is considerable evidence that personal issues are affecting work or productivity such as excessive absences, tardiness, and proclivity or predisposition for on-the-job accidents causing injuries. No evidence was presented to the consulting team by ACPS officials that would suggest ACPS employees have such issues to any devastating or derogatory degree. The report showing low use or need rate affirms this.

RECOMMENDATION 4.4

Discontinue providing the employee assistance program since participation rate is low.

In most cases, depending on severity of the problem, ACPS employees who participate in the division’s health and medical insurance plan or some other private coverage have access to screening and behavioral counseling. For example, through Anthem, the division’s health insurance plan, members can obtain counseling on such issues as the use of drugs and alcohol, obesity, emotional illnesses, and domestic violence.

FISCAL IMPACT

Eliminating the EAP would save \$14,400 per year.

Recommendation	2015-16	2016-17	2017-18	2018-19	2019-20
Discontinue the EAP.	\$14,400	\$14,400	\$14,400	\$14,400	\$14,400

FINDING 4.5

The individual cost to a teacher for renewing a teaching license in Virginia is \$25, which the employee is typically expected to pay; however, in ACPS the division pays the fee as a benefit for its teacher employees. The average number of



ACPS teacher license renewals for the past four years is 82 with a cost to the division of \$2,125.

In Virginia school divisions, as in all other states, licensed or certified teachers on their own volition are expected to submit appropriate paperwork and re-licensing fees when renewal times come. Other licensed or credentialed individuals in professions apart from teaching face the same expectation. Not renewing within the time framework and meeting the requirements of the credentialing agency results in an expired license or certificate. Returning the responsibility for paying the fees solely to ACPS teachers would be no different from what most teachers in other Virginia divisions and elsewhere have come to expect.

The licensure secretary in the HR office spends about 40 percent of her work time within a fiscal year interacting with and counseling teachers who within that year must complete the submission of their paperwork which documents the completion of the required 180 professional development points accumulated since their last renewal. HR has joint responsibility for ensuring compliance with the rules pertaining to the content of the training received. License holders are responsible for satisfying license renewal requirements as set forth in the regulations governing the licensing of school personnel (8 VAC 20-22-110). These regulations state that individual licensed persons are responsible for submitting the documentation and paying the fee.⁵

The ACPS HR department also pays a consultant an annual fee to keep up to date with the information and new requirements in the already complex rules which are said to be “continually changing.” The new *Virginia Licensure Renewal Manual* (March, 2014), for example, is 34 pages of rules, including examples of forms that must accompany the renewal application.⁶

RECOMMENDATION 4.5

Transfer the responsibility of paying the teacher license renewal fee to the individual ACPS teacher.

The consulting team was unable to identify among the peers any other division that pays license renewal fees for its teachers. This suggests that the practice is fairly unique and may be unnecessary.

FISCAL IMPACT

Based on the average of 82 ACPS teachers whose license renewals were completed in the last four years and the renewal fee of \$25 for each teachers, the savings to the division would be \$2,050. Although these savings are minimal, they still speak to the division’s expectations of teachers assuming their professional obligations.

⁵ www.doe.virginia.gov/teaching/licensure/licensure_fees.pdf

⁶ www.doe.virginia.gov/teaching/licensure/licensure_renewal_manual.pdf

Recommendation	2015-16	2016-17	2017-18	2018-19	2019-20
Transfer paying license renewal fees to teachers.	\$2,050	\$2,050	\$2,050	\$2,050	\$2,050

B. Policies and Procedures

All of the school board policies are published on the ACPS website under the heading of the school board as well as the tab for HR. The “G” series policies pertaining to personnel are complete with appropriate written regulations. Any HR function requiring the use of applications or forms in compliance with personnel policies has these papers inserted with the policies and regulations. Additional administrative procedures for HR are also provided under the HR tab on the website.

Despite the absence of specific, written workflow processes, the HR function of ACPS operates smoothly, guided by school board policies and administrative rules and regulations. Required jobs and tasks are completed more from staff memory and years of experience than from written procedures. Since the clerks occupy the same physical area and work so closely together on mutual tasks, each one serves as a backup for the workflow in the absence of the other.

Even though the work of those assigned to HR operations, benefits, and payroll 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. Planning or automating for the future was not evident to the consulting team. There are minimal formalized workflow processes of 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 Winocular, 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.

A week-long new teacher orientation is conducted by HR in conjunction with the department of instruction. An orientation packet of materials specific to HR containing information about personnel procedures, benefits, and licensing is given to each participant. A booklet containing detailed information about the division’s health insurance plans is given to each new hire. Additionally, representatives for vendors that provide benefits, EAP, and other employee services attend and set up a table so that they can provide one-on-one information to the new hires. An explanation of the ACPS mentor program is also discussed at length. Individual or small-group orientation is provided to classified employees who are new hires.

FINDING 4.6

Job descriptions for both professional and classified positions in ACPS were recently updated, according to the assistant superintendent for HR, but the revision generally did not include changing the revision date in the footnote on the bottom of each job description itself. Although some descriptions for professionals

show a revision date in 2013-14, apparently because of new hires in those positions, the majority carry last updated dates of 2010-11. Even though the consulting team was told that they had been reviewed and updated, the job descriptions presented for classified staff appear to be unchanged work products resulting from position analysis questionnaires and job audits conducted by a consulting company in 2008 during an outsourced classification and compensation study. As each review of each job description was completed, the footnote date of November 2008 should have been changed. Only two job descriptions for classified staff appear to be recently written or updated since their formatting is different from those dated November 2008. The job description for the transportation coordinator has no date.

There are some classified job descriptions with titles that do not match positions listed in the employee database used for payroll. For example, there is no job title or position for “instructional materials clerk” listed in the payroll database. If this position is not active and there is no employee performing the job functions of this position, the job description should not be located with others that are active and filled. If these functions are actually being performed by an active employee, the titles should be reconciled so that the job description listing matches titles in the payroll database. Likewise, there is no position being paid in payroll as a “courier” even though a job description is available in the active position notebook. None of the custodians listed in payroll are designated as “head custodian” although there is a job description for that position.

The only official location for descriptions for all jobs is in the HR office, in two three-ring binders. Any online, electronic version that may be readily available for public or employee access requires login authorization.

Job descriptions are the cornerstone of communication between employers and their employees. In order for supervisors to accurately measure job effectiveness during performance reviews, both the supervisor and the employee must know what is expected.

A sample template of all of the items that SHRM recommends be included in a job description for both professional and classified employees is shown in **Exhibit 4.10**. These inclusions serve both to ensure *FLSA (Federal Labor Standards Act)* compliance and potentially to withstand legal challenges, especially in regard to *ADA (Americans with Disabilities Act)* claims. These categories appear in over 200 job descriptions that were generated to be used as samples by its HR professional members in SHRM.

Exhibit 4.10
Sample job description elements

Job Title:
Work Department:
Pay Grade/Salary Scale:
Reports to (Immediate Supervisor Title):
FLSA Status: (Exempt or Non-Exempt)
Prepared/Revised Date:
Approved By:
Approved Date:
General Statement/Definition of Job:
Essential Duties and Responsibilities: <i>(Other duties may be assigned)</i>
Supervisory Responsibilities:
Qualifications/Requirements:
Knowledge, Skills, and Abilities:
Education and/or Experience
Language Skills
Mathematical Skills
Reasoning Ability
Certificates, Licenses, Registrations
Physical Demands
Work Environment
Special Requirements:
Terms of Employment:
Evaluation Criteria:

Source: Downloaded from SHRM.org/membershipservices/sample template

If an employee, already hired or applying for a position, claims in court that he is being or was denied access to a posted position because of his or her disability, a carefully drafted job description can be a useful tool in defending the hiring manager's position. The courts will review what the organization has identified as the job's "essential functions" and other work site considerations to see if the claims of the employee have merit. Without a comprehensive job description, especially concerning physical demands and work environment, the court

may decide itself which functions are essential and completely disregard any of the defendant's concerns and considerations.⁷

RECOMMENDATION 4.6

Reformat and review content of current job descriptions, update missing information, and publish them online.

Job descriptions set the expectations for all employees in their positions and alleviate any ambiguities that may be unclear 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 losses (from lawsuits) within the organization. The responsibility for reviewing and updating job descriptions on a regular basis (every three years is recommended) can be assigned by the head of ACPS human resources to each department supervisor. **Exhibit 4.11** provides a suggested checklist for supervisors to use as they perform reviews and update descriptions of all jobs assigned to their departments.

Exhibit 4.11 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 responsibilities?
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 references to age, race, gender, religion, disability, or any other "protected" characteristic?

Source: "HR Specialist: HR Answers You Can Trust," www.theHRSpecialist.com.

⁷ ACPS utilizes a committee approach to the interview process for all prospective employment candidates. Committee members are selected to evaluate various aspects of the position and candidate to ensure fairness and competitiveness.

FISCAL IMPACT

The HR clerks will be assigned the responsibility of reformatting and providing additional information in the updating procedures. However, since there is no evidence that the current classified job descriptions reside in an electronic or digital format, they will have to be word-processed into the new format from “scratch.” This process should require about 40 hours of HR staff. Staff should work on this task as they find time during their work week. In the recommended ongoing review by departmental supervisors over the next three years, each supervisor will need to spend about 15 minutes reviewing and editing each job description for his work area. When the review and edited job descriptions are returned to HR staff, about five minutes’ time can be devoted to inputting the changes. The HR leader will need to spend about three to five minutes reviewing each job description before it is uploaded to the division’s website.

FINDING 4.7

Even though principals produce a faculty-staff manual for all staff at the campus level, other supervisors of other departments in ACPS do not. The campus level handbooks rarely provide their readers with the rules, regulations, and procedures in regard to HR functions (e.g., how to apply for FMLA leave, how the sick leave bank operates, how sick leave days can be converted to retirement credit). Until about six years ago, employees had access to an employee handbook online.

HR leadership in many school divisions underestimates the value of an employee handbook. A well-drafted employee handbook provides written documentation of important policies and procedures and 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.

Exhibit 4.12 shows an outline for an effective employee handbook offered by the American Association of School Personnel Administrators (AASPA). Its components are considered standard by HR leadership among school divisions and districts in the U.S.

Exhibit 4.12
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 4.7

Provide an online employee handbook.

A well-drafted employee handbook published online becomes a very valuable resource for both employee and employer. 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. For example, an employer's EEO policy that requires an employee to file any complaint of discrimination or harassment internally makes good sense. This 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 about filing the complaint, the employer may use the employee's failure to do so as an affirmative defense in a subsequent discrimination and/or harassment lawsuit.

The HR office of ACPS already posts to the website many documents about employment in the division, but they may reside under different buttons. Having an employee handbook online provides employees a direct and consistent source and location when they have employment questions.

The online employee handbook can contain all of the essential information, forms, and applications about any HR procedure, process, or function, thereby facilitating easy access by employees and reducing the time HR staff has 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 by the two clerks in the HR office within approximately 10 hours total. Each clerk can complete online chapters or their assigned input portions as their regular work schedules allow.

C. Recruitment, Hiring, and Retention

The HR staff of ACPS is dedicated and committed to one of the most critical functions performed by a human resources department — 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 is not solely the responsibility of HR. It also 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 and thereby reduce turnover.

ACPS HR follows a detailed hiring protocol which is shared with other division hiring managers that outlines the steps involved in the hiring process for each employee group such as administrators, teachers, and classified positions. The protocol helps non-HR supervisors to understand the complexities of employment.

HR's use of Winocular, a comprehensive online applicant tracking system, has created sufficient pools of candidates for both professional and classified vacancies. Jobs are posted on the website and occasionally printed media advertisement is used. All applicants for a posted position must use the Winocular application system. If an applicant does not have access to a computer for making the application, he or she can come to the HR office where a dedicated computer is available. At times HR clerks actually enter the application information if the applicant cannot use the computer.

In addition, Amherst utilizes its most effective student teacher placements (internships and student teachers) to identify teacher candidates for hire. Having the opportunity to observe the teaching abilities of interns and student teachers on-the-job is an exceptional factor in determining who should be hired.

According to information provided to the consulting team, usually recruiting trips outside the division are made in conjunction with job fairs at University of Virginia, Roanoke College, Liberty University, Lynchburg College, Longwood College, James Madison University, Radford College, Old Dominion University, and Virginia Tech. Recruitment documents show special efforts to attract and to hire teachers who represent cultural minorities with visits with teacher candidates at both Hampton University and North Carolina A&T University. For recruiting trips for the past three budget years, \$6,520 was budgeted.

One important factor that ACPS has in place to retain teachers is the teacher salary scale, which is among the highest in beginning salary within both the identified peer division comparison and the geographical area. **Exhibit 4.15**, presented later in this chapter, shows that comparison.

Used by private industry, commercial ventures, and public governmental entities, the annual employee turnover metric shows the rate at which employees enter and leave a company or organization in a given fiscal year. No leading HR management agency, such as SHRM, has established a figure that should be considered best practice, and SHRM instead recommends that businesses and school divisions structure their HR functions and employee engagement programs to achieve the lowest annual rate possible. In comparison to other school divisions that the consulting team reviewed, Amherst's 13 percent average for the past three years is relatively close to theirs.

Exhibit 4.13 shows the turnover rate for all ACPS employment positions from 2011-12 to 2013-14, both professional and classified. Percentages in turnover range from 10 to 18.

**Exhibit 4.13
ACPS turnover rate
2011-12 to 2013-14**

	Employee Category											
	Administration	Bus Aides/ Bus Drivers	Child Nutrition	Custodian	Instructional Asst.	Maintenance	Transportation	Secretary and Clerk	OT/PT/Nursing	Student Support	Teacher	Technology
2011-12												
Turnover	2	18	6	10	13	0	0	3	5	0	56	0
Number of Employees	30	72	51	43	69	10	5	47	12	15	387	4
Percent Turnover	7%	25%	12%	23%	19%	0%	0%	6%	42%	0%	14%	0%
Average of All Jobs												12%
2012-13												
Turnover	3	11	9	8	13	3	2	1	0	0	66	2
Number of Employees	24	73	45	41	65	10	5	40	11	14	374	5
Percent Turnover	13%	15%	20%	20%	20%	30%	40%	3%	0%	0%	18%	40%
Average of All Jobs												18%
2013-14												
Turnover	5	19	3	6	8	0	0	4	1	0	60	0
Number of Employees	29	64	46	37	73	10	5	36	15	13	376	4
Percent Turnover	17%	30%	7%	16%	11%	0%	0%	11%	7%	0%	16%	0%
Average of All Jobs												10%

Source: Created by Prismatic from data provided by ACPS HR Assistant Superintendent, April 2014.

Additional study of the data provided for 2013-14 shows that 11 of the 60 teachers who left the division, or 20 percent, entered retirement. Less than one percent of the teachers who left were completing only one year of employment in ACPS. Excluding the teachers retiring, the average years of experience in ACPS of the others leaving was six years. The data also reflect both a change in the positions of superintendent and assistant superintendent, which accounts for the 17 percent turnover rate for administration.

Statistics provided by HR to the consulting team show that of the current teaching staff, eight percent are eligible to retire this school year. The percentage increases to nine percent in 2014-15; to 11 percent in 2015-16; and to 13 percent in 2016-17. These numbers reflect those teachers who have already accumulated 30 years or more in the teaching profession and meet eligibility requirements from the Virginia Retirement System. These numbers also

will be useful to HR in planning staffing needs and recruitment scheduling in the next three years.

FINDING 4.8

Seldom can any other division among the peers match ACPS in its employee recognition program. Considered to be among the top most important components of employee retention are the employee recognition programs that are administered and/or facilitated by HR, principals, and other departmental leaders in the division.

To affirm the importance that ACPS places on recognition and appreciation of its employees, there is in place a staff recognition advisory committee which coordinates the program. Included among the yearly activities are:

- reception honoring retirees;
- reception honoring employees with 25 years of service to ACPS;
- Teacher Appreciation Week activities in conjunction with American Education Week;
- various staff recognitions at board meetings;
- staff appreciation functions held regularly in each school;
- Supergram newsletter from the superintendent;
- central office holiday luncheon;
- luncheon for secretaries; and
- Welcome Back to School assembly and celebration.

Examples of gifts of appreciation that have been provided by local merchants and other organizations include umbrellas, lunch boxes, shirts, candy bars, pizza distributed by board members in each of the schools, ice cream, door prizes, and prize drawings.

COMMENDATION

The ACPS board, superintendent, principals, and the leadership team are commended for the abundance of opportunities they provide to show their appreciation of the ACPS employees and to recognize them for their service.

FINDING 4.9

Efforts made by administrators and principals in ACPS to increase the number of National Board Certified Teachers (NBCT) who work in Amherst schools have declined in recent years because local division stipends were discontinued. Even though more interest was shown whenever the division was able to provide stipends to these teachers, strategies to increase participation at no cost to the division can be developed.

The National Board for Professional Teaching Standards, known simply as NBCT, is an independent, nonprofit organization that was formed in 1987. Its purpose is to advance the quality of teaching and learning by developing professional standards for accomplished teaching, creating a voluntary system to certify teachers (in addition to state licensing and

certification) who meet those standards and integrating NBCT into educational reform efforts.

To establish a teaching profession that significantly improves student learning and achievement, the NBCT focuses on two strategic goals that reinforce each other:

- building educator effectiveness across the career continuum; and
- promoting a vision of accomplished teaching that elevates the profession.⁸

Currently, six ACPS teachers hold NBCT status and are each paid an annual stipend of \$2,500 by the VDOE. In the first year only of NBCT completion, newly certified teachers receive a stipend of \$5,000, dependent on the ability of the VDOE to find funding in its budget. At one time, ACPS paid these teachers a stipend of \$1,000, but that was eliminated several years ago because of budget cuts.

According to the VDOE website, the Commonwealth has 2,887 NBCTs who receive Commonwealth stipends, but Virginia does not keep year-to-year data for individual divisions. Online data from the National Board of Professional Teacher Standards (NBPTS, the parent organization for the NBCT program) shows that, when compared with its peer divisions, Amherst has more than any of the others. Pulaski and Smyth each have four NBCTs. Caroline, Carroll, and Dinwiddie each have one. Russell and Mecklenburg have none.⁹ The national website, however, cautions about using its database of teachers and their work locations as totally accurate because of the mobility of teachers in general. Some NBCTs do not keep their employment data up to date with the national organization. The consulting team was not able to obtain data from peer divisions that show any local stipends being paid.

The inability of ACPS to continue to pay a local stipend is not a problem unique to school divisions – other small divisions have had to make the same reductions. Because they value the NBCT program and because it provides a sense of pride, these school divisions too are attempting to find non-monetary ways to replace the motivation that local stipends once provided.

RECOMMENDATION 4.9

Reinstitute the plan to increase the number of teachers in the ACPS division who become National Board Certified Teachers even though no division funding is available.

ACPS division leadership from HR and instruction as well as principals can convene a meeting with the current six ACPS teachers who are National Board Certified Teachers to brainstorm ideas of how they can get their peers and colleagues interested in pursuing this special certification. The current cohort can mentor other teachers. A consortium of administrative leaders and NBCT teachers from neighboring divisions could be formed with ACPS teachers and leaders to broaden the plan for increasing participation.

⁸ <http://www.nbpts.org/strategic-priorities>

⁹ <http://www.nbpts.org>

FISCAL IMPACT

Administrative leaders planning to convene the meeting can expect to spend an hour each initially. An hour can be spent online researching the NBCT website and other division websites for information and ideas about increasing participation. Subsequent meetings with NBCT teachers can be planned for one hour for each participant in an after school setting.

FINDING 4.10

ACPS employee loyalty and commitment to the division's mission is laudable.

The average number of years of experience in ACPS in 2012-13 for all employees was 14 years. The average number of years of experience for teachers was 14 years.

Looking at a roster of employees with the most number of years of service, there is one ACPS bus driver who has served for 44 years. Following closely after, is another half-time bus driver with 43 years. A closer look at the longevity of the 26 employees at the top of the experience roster, which includes all employees who have served 35 to 44 years, reveals that eight bus drivers, 13 teachers, two central office administrators, two secretaries, and one cafeteria worker have the most longevity.

Just over half of the entire ACPS work force has at least eight years' experience in the division. The average longevity of these 384 employees is 16 years. Just over 14 percent of the employees have 20 or more years of service.

COMMENDATION

The commitment of employees to Amherst schools and its students as measured simply by their longevity or time-in-service is truly laudable.

At the debriefing session at the end of each on-site workday, the consulting team expressed their awe and admiration at the devotion, dedication, hospitality, and the sense of "being at home" exhibited by the employees with whom the visiting team interacted. The reception that the consulting team experienced attests to these qualities of well-being.

D. Staff Development

Staff or professional development is the strategy schools and school divisions use to ensure that its teachers continue to strengthen their practice through their careers. The most effective professional development engages teams of teachers to focus on the needs of their students. They learn and problem solve together in order to ensure all students achieve success. School divisions use a variety of schedules to provide this collaborative learning and work time for teachers.

In both individual and focus group interviews, teachers new to the division gave high praises for the ACPS mentoring program. Some said the experience was more meaningful than the teacher preparation courses at the university. The New Teacher Center of Santa Cruz in California serves as the ACPS mentor training model. It is designed to assist new teachers as they transition from university completion into actual classroom teaching. In addition, the program utilizes formative tools that assist the mentor and the new teacher in their reflective process. This collaborative work evolves into a reflective teaching team. Experienced ACPS

mentors have participated in two years of training academies based on the New Teacher Center model. As mentors, they have an opportunity to grow in the profession themselves as they guide beginning teachers on the pathways to a career.

For the past five years, the division has produced a yearly catalog of all the ACPS training sessions for the school year, listed month-by-month, with brief descriptions of the session and contact information for registration.

Another important resource for ongoing ACPS teacher training is provided through the Virginia School-University Partnership (VSUP), which is an educational consortium composed of the University of Virginia’s Curry School of Education and more than 40 Virginia public school divisions. Its goal is to provide opportunity for effective professional collaboration and high quality professional development in order to improve instruction and increase student achievement. For membership and participation in VSUP, ACPS pays about \$3,300 annually that provides opportunities for teachers and administrators from member school divisions to participate in workshops and conferences that feature state and national presenters as well as a wide variety of local educational consultants and experts.

The only records that are kept in the HR office in regard to teacher training or professional development have been submitted as documentation showing the accumulation of points necessary to meet the VDOE requirements for licensure renewal. There is no requirement that teachers or any other classification of employee complete a requisite number of hours of training or professional development in a school year.

It should be noted that no funding or expenditures for professional or staff development figures show in the budget for HR since ACPS does not allocate those funds to HR. Instead, funding is placed into teacher classroom training through elementary and secondary education as well as instructional support through supervisors for the past two years.

Exhibit 4.14 shows the budget for staff development in ACPS. The funds are actually maintained in central administration and released through the department of instruction. The exhibit shows how minimal the staff development budget is. According to the ACPS CFO, all Title I monies are used for teacher salaries. Any instructional materials used for the training of teachers on an individual basis come from a different budget.

Exhibit 4.14
ACPS staff development budget (2010 to 2014)

Description	2010	2011	2012	2013	2014
Elementary	\$ 11,000	\$ 9,850	\$ 9,850	\$ 9,850	\$ 9,850
Secondary	\$ 12,000	\$ 10,850	\$ 10,850	\$ 10,850	\$ 10,850
Supervision	\$ 0	\$ 0	\$ 0	\$ 750	\$ 750
Total	\$ 23,000	\$ 20,700	\$ 20,700	\$ 21,450	\$ 21,450

Source: ACPS CFO, April 2014.

Further, it should be noted that funding for substitute teachers who work in the absence of a teacher who is in staff training at the school is a separate budget item. The budget for substitute teacher pay is not connected with funds set aside for professional development.

FINDING 4.11

Funding that is specifically budgeted for professional or staff development is retained at the central office level and is expended as necessary to support



instructional programs designed as a result of collaboration between campus teams and central office instructional leadership. ACPS instructional leadership does not produce a plan that shows precisely how the limited professional development funds will be expended within the budget year. Nor is there pro-rata funding available to individual schools. Exemplary planning for the use of budgeted funds is necessary for tracking the use of those funds and to address required accountability issues. Writing into a plan what the proposed use of these funds will be and sharing it with fiscal managers as well as the public would satisfy this requirement and answer basic questions, such as “How much of these funds will be used at Amherst Middle School to address teacher training to improve teaching reading skills?”

RECOMMENDATION 4.11

Ensure transparency of the budgeting and use of professional or staff development funds by extrapolating specific training planned from individual school improvement plans.

The need to show that both training and the funding for it is occurring in ACPS is critical. Otherwise, it would appear that no training at all is being provided.

FISCAL IMPACT

Five minutes or less will be required for a clerk or the division’s webmaster to simply upload onto the website any plans showing proposed uses of funding for staff or professional development.

FINDING 4.12

An examination of teacher absences and training records revealed the division’s strong commitment to professional development. However, the total of all teacher absences requires further review. The review team found that many absences were because teachers were exclusively involved in on-duty, school-day training. For the past five years, the average number of teachers who received professional development in this model is calculated at 748. Conceivably, each ACPS teacher on average had two full days of training during the school year. Realistically, some teachers had no training days using substitute teachers and others had substitutes for more than two days.

Virtually all of the teacher professional development that is provided in individual ACPS schools is tied to addressing student achievement goals that are established in the SIP (school improvement plan). The main training delivery model onsite is the PLC or Professional Learning Community. Principals provide for teachers’ release time so that they can meet collaboratively during the school day to discuss and develop strategies and to arrive at solutions to academic achievement problems the students are having. In most cases, substitute teachers are hired so that teachers can participate on duty time in their PLCs. **Exhibit 4.15** shows the number of substitute hours used for teacher training for the past five years.

**Exhibit 4.15
Substitute Hours Used for Teacher Training**

Year	Number of Substitute Hours	Number of Teachers in Training¹
2008-09	7,449	993
2009-10	5,646	752
2010-11	4,891	652
2011-12	5,086	678
2012-13	4,991	665
Average	5,613	748

Source: HR Payroll/Benefits Clerk, May 2014.

¹ *Calculated using 7.5 hours per teaching day*

COMMENDATION

Despite having limited funding available for professional development, ACPS principals and central office instructional leadership teams are commended for their obvious commitment to staff development or teacher training in compliance with the SIP planning process and its ultimate effect on student achievement.

E. Compensation and Classification Systems

In 2008, ACPS contracted with Springsted, a Virginia company, to conduct a salary and compensation study. In 2009, when the report from Springsted was presented, the division realized that it could not afford to implement or to make the changes and to give the increases that the study had recommended. There has been no update study since that time.

The ACPS assistant superintendent for human resources manages the salary structure and scales for the division. She also recommends to the superintendent the starting salary for candidates who will be hired and ensures that unwritten pay rules are followed. If the salary scale that the new hire will be placed on has ranges instead of steps, then the HR leader and superintendent jointly decide the placement within the range.

The assistant superintendent for HR is also responsible for FLSA position classification and for continually monitoring the exempt and non-exempt status of each employee. Working collaboratively with the CFO and the payroll/benefits clerk, she reviews overtime payments to ensure compliance with FLSA rules.

Exhibit 4.16 is a comparison of the beginning salary paid to teachers in Amherst with those of its peers. In looking at the identified peers, Amherst paid the third highest, lagging only a few dollars behind Caroline County, which held the second position. **Exhibit 4.17** shows that, in the surrounding counties comparison, Amherst paid the third highest amount but fell below the neighbor division average.

Exhibit 4.16
Peer comparison of beginning bachelor's salaries (2013-14)

School Division	Bachelor's Salary	Rank
Caroline County	\$ 38,166	2
Carroll County	\$ 35,462	6
Dinwiddie County	\$ 40,126	1
Mecklenburg County	\$ 34,845	7
Pulaski County	\$ 36,934	5
Russell County	\$ 31,000	8
Smyth County	\$ 31,000	8
Wythe County	\$ 37,460	4
Peer Division Average	\$ 35,624	
Amherst County	\$ 38,138	3

Source: Division websites, May 2014.

Exhibit 4.17
Neighbor division comparison of beginning bachelor's salaries (2013-14)

School Division	Bachelor's Salary	Rank
Appomattox County	\$ 38,500	2
Bedford County	\$ 37,627	4
Campbell County	\$ 37,118	5
Lynchburg City	\$ 35,739	6
Nelson County	\$ 43,000	1
Neighbor Division Average	\$ 38,397	
Amherst County	\$ 38,138	3

Source: Division websites, May 2014.

Exhibit 4.18 shows how the average salary of teachers in Amherst compares with peer groups. Teachers in both Caroline County and Wythe County, on average, were paid more than Amherst teachers. As **Exhibit 4.19** shows, both Nelson County and Lynchburg County had average teacher salaries higher than Amherst, though ACPS still fell above the neighbor division average. Caroline County's composite index was nearly 10 percent higher than Amherst's, indicating that Caroline had more local funding that could have been used for teacher salaries. Additionally, Wythe's index is about five percent higher, possibly accounting for the difference in salary when compared to Amherst.

Exhibit 4.18
Peer comparison of average salary, 2012

School Division	Bachelor's Salary (BS)	BS Rank	Composite Index of Local Ability-to-Pay	Composite Index Rank
Caroline County	\$ 48,718	1	.3580	1
Carroll County	\$ 40,452	8	.2573	7
Dinwiddie County	\$ 42,906	4	.2631	6
Mecklenburg County	\$ 41,707	6	.3315	2
Pulaski County	\$ 41,084	7	.2870	4
Russell County	\$ 39,388	9	.2113	8
Smyth County	\$ 41,887	5	.2100	9
Wythe County	\$ 46,674	2	.3142	3
Peer Division Average	\$ 42,852		.2791	
Amherst County	\$ 43,470	3	.2664	5
Statewide Average	\$ 52,003			

Source: VDOE 2011-12 Salary Survey and 2010-2012 Composite Index of Local Ability to Pay.

Exhibit 4.19
Neighbor division comparison of average salary, 2012

School Division	Bachelor's Salary (BS)	BS Rank	Composite Index of Local Ability-to-Pay	Composite Index Rank
Appomattox County	\$ 39,023	6	.2732	4
Bedford County	\$ 40,562	5	.4076	2
Campbell County	\$ 42,302	4	.2490	6
Lynchburg City	\$ 46,671	2	.3643	3
Nelson County	\$ 46,751	1	.5734	1
Neighbor Division Average	\$ 43,062		.3735	
Amherst County	\$ 43,470	3	.2664	5
Statewide Average	\$ 52,003			

Source: VDOE 2011-12 Salary Survey and 2010-2012 Composite Index of Local Ability to Pay.

The ability to increase salaries of any employee group within ACPS has been strained in recent years because of low revenues. The ability in the near future to increase wages does not appear to be promising.

Exhibit 4.20 shows expenditures for total payroll in the last four years and the amount budgeted for the current year. The chart also briefly explains the reason for any small variance. Payroll costs include payroll costs and benefits (group life, health care, retirement, FICA, worker's compensation, reimbursement, etc.).

**Exhibit 4.20
Payroll costs with variances, 2009 – 2014**

Year	Total Payroll	Variance
2009-10	\$ 36,525,376	N/A – data begins
2010-11	\$ 34,581,674	VRS rates, health care credit rates decreased, reduction of staff
2011-12	\$ 35,674,652	No salary increase, VRS rates changed, health insurance rates increased
2012-13	\$ 35,452,492	Salary increase to offset five percent VRS that moved to employee responsibility; VRS rates increased; group life rates increased; NCC rates increased; health insurance premium changed; positions eliminated
2013-14	\$ 37,300,695	Salary increase of three percent; rate changed in VRS, group life, health care credit; insurance premium

Source: ACPS CFO, May 2014.

According to the ACPS CFO, there is no funding budgeted for overtime. A department manager who approves work in an emergency for an employee that will result in working overtime must reimburse payroll from the department’s operations fund. As a result of this arrangement, managers seldom approve overtime pay. **Exhibit 4.21** shows how much the division spent in overtime for the past three years and the percentage of total payroll that went annually to overtime pay.

**Exhibit 4.21
ACPS overtime expenses, 2010-13**

Year	2010-11	2011-12	2012-13
Overtime paid	\$ 14,235	\$ 17,666	\$ 25,852
Total payroll	\$ 34,581,674	\$ 35,674,952	\$ 35,452,492
Percent of payroll	<1%	<1%	<1%

Source: ACPS CFO, May 2014.

With the exception of the superintendent, all other employees of the ACPS board sign annual contracts that are distributed by HR after principals and department managers have identified which employees they recommend for another year’s contract. In May and June each year, the contracts are individually printed in the HR office, distributed through school mail, signed by the employee, reviewed by the principal or department manager, and returned to HR for filing.

FINDING 4.13

Job titles or positions themselves of administrative employees listed in the payroll database do not always coordinate with titles that are listed as positions that are paid at specific levels on the administrative salary scale for 2013-14.

Some jobs listed no longer exist. Some jobs listed in the payroll database are not reflected at all in the salary scale.

RECOMMENDATION 4.13

Revise the administrative salary schedule for 2013-14 to ensure that all job titles or positions are listed next to the salary level and remove positions listed that no longer exist in the administrative organizational structure.

Following is a list of positions noted on the administrative salary pay scale for 2013-14, but they do not show up as positions filled in the ACPS employee database provided to the consulting team. Possibly, there are individuals working in these positions but their payroll position title is not the same as their salary scale title. Some positions listed on the salary scale may be briefer or abbreviated titles, such as:

- student accountability coordinator;
- school social worker;
- education technology supervisor;
- elementary supervisor;
- director of human resources and staff development;
- assistant superintendent for curriculum, instruction, and assessment; or
- assistant superintendent for operations.

On the other hand, there are two positions, transportation supervisor and maintenance supervisor, on the administrative salary schedule, but the employee database shows a director of maintenance and pupil transportation. The merger of these two jobs and the subsequent change of job title should be reflected.

FISCAL IMPACT

It would take less than one hour for a clerk in either HR or payroll or both to make corrections on the database employee fields and then to correct the administrative salary scale and post it online. Both the CFO and the assistant superintendent for HR should oversee these corrections.

Facilities Use and Management

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

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

Facilities use and management includes the planning, design, 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 or closed. 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.

ACPS operates the facilities listed in **Exhibit 5.1**. The exhibit also lists the date of original construction, the gross square footage (GSF) and current insured value of each facility. The consulting team shall use the current insured value synonymously with current replacement value (CRV). **Exhibits 5.2** through **5.5** provide a sample of school campuses in ACPS.

Exhibit 5.1
GSF floor area and insured value of ACPS buildings

Facility (Year of Original Construction)	Year of Original Construction	Gross Square Feet	Insured Value
Amelon Elementary School	1963	57,861	\$ 8,058,300
Amherst County High School	1954	214,792	\$ 35,410,000
Amherst Education Center	2008	21,386	\$ 3,050,200
Amherst Elementary School	1963	59,701	\$ 8,514,800
Amherst Middle School	1953	70,509	\$ 10,805,100
Central Elementary School	1963	57,272	\$ 7,945,000
Elon Elementary School	1967	49,361	\$ 7,717,300
Madison Heights Elementary School	1990	59,500	\$ 8,389,500
Monelison Middle School	1976	100,016	\$ 15,326,900
Pleasant View Elementary School	1951	30,235	\$ 4,738,900
Temperance Elementary School	1938	28,133	\$ 3,615,600
Bus Garage/Maintenance Shop	1974	11,500	\$ 1,066,000
Totals		760,266	\$ 114,637,600

Source: Prepared by Prismatic from ACPS property records, May 2014.

**Exhibit 5.2
Amherst County High School**



**Exhibit 5.3
Monelison Middle School**



Source: Prismatic, May 2014.

**Exhibit 5.4
Temperance Elementary School**



**Exhibit 5.5
Elon Elementary School**



Source: Prismatic, May 2014.

In addition to the fixed facilities, the division has eight mobile classrooms (**Exhibit 5.6**). The 2,000-square-foot units at Central, Elon, and Madison Heights Elementary Schools are dedicated to the Head Start program. The other five mobile units are used for a variety of purposes. Four of them are at Amherst Middle School. One is used two periods a day for world history, one is used two periods a day for Spanish I, one is used as a health classroom during the second third six-week grading periods, and the other is used as needed as a remediation/gifted classroom throughout the year. The other location that has a mobile

classroom is Central Elementary School. That unit is used as a music classroom two days per week. The eight mobile classroom units are all in good to excellent condition. **Exhibit 5.7** shows an exterior view of a typical mobile unit.

Exhibit 5.6
ACPS mobile unit and classroom totals

Mobile Unit Location	Number of Mobile Units	Gross Square Feet
Central Elementary School	2	1@ 2,000 1@ 900
Elon Elementary School	1	2,000
Madison Heights Elementary School	1	2,000
Amherst Middle School	4	1@ 750 3@ 900
Totals	8	10,350

Source: ACPS, 2014.

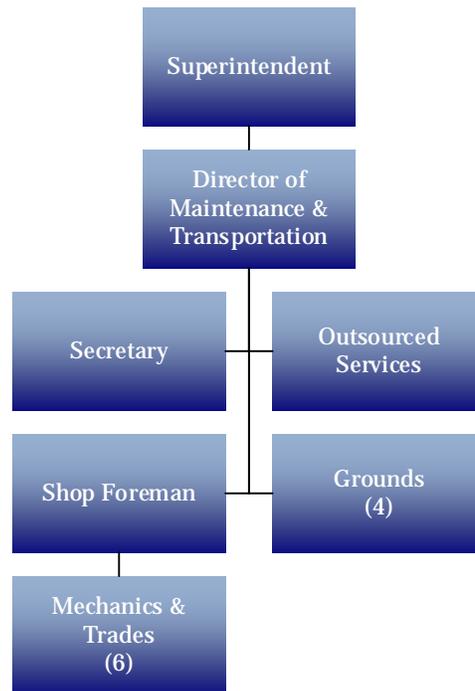
Exhibit 5.7
Typical mobile classroom unit at ACPS



Source: Prismatic, May 2014.

Amherst County Public Schools houses its entire maintenance staff at the maintenance facility, adjacent to the transportation facility and bus garage. **Exhibit 5.8** provides the present organizational structure of the ACPS maintenance department.

Exhibit 5.8
Current maintenance department organization



Source: Created by Prismatic, May 2014.

The ACPS maintenance department is headed by the director of maintenance and transportation, an able and energetic manager and leader. The incumbent has spent nearly his entire career as a plant manager in the private sector, until he took his current position at ACPS in 2008. He has been promoted recently to director of transportation, in addition to maintenance. A shop foreman reports to the director. This foreman is also the staff electrician, with 25 years of service at ACPS. He is in charge of scheduling and assigning himself and the other five mechanics and tradesmen to complete reactive and preventive maintenance work orders. A grounds crew of four also reports to the director. One of the crew members is the foreman who schedules grounds keeping assignments and participates in the work on an equal basis. Two additional support staff members complete the current maintenance staff: the secretary and the courier. The secretary manages work orders and is in charge of overall communications, whereas the courier delivers parts to work sites, as necessary, and documents to locations where they cannot be delivered by fax. **Exhibit 5.9** lists the individual staff positions and their length of service.

**Exhibit 5.9
Current ACPS maintenance staff positions**

Position	Years of Service
Electrician/Foreman	25
Plumber	2
Carpenter / Locksmith	12
Boilerman	5
General Maintenance	34
General Maintenance	5
Groundsman/Foreman	13
Groundsman	8
Groundsman	1
Groundsman	3
Courier	6
Secretary	10

Source: Created by Prismatic, from ACPS data, May 2014.

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

- ACPS has an exemplary community use of facilities program, given the relatively small size of its school division.
- The ACPS maintenance staff demonstrates an unyielding commitment and dedication to maintaining the facilities of the school division.
- ACPS has used its in-house expertise to prepare a realistic and actionable capital improvement projects (CIP) list on an annual basis since 2009.
- ACPS custodians are commended for their consistent cleaning of school facilities despite being moderately understaffed.
- ACPS has implemented an effective energy conservation policy, with excellent results for over five years.

The consulting team also made 10 recommendations in this chapter:

- Design and implement a continuous five-year facilities master planning protocol that supports Amherst County and ACPS in working cooperatively, diligently, transparently, and realistically on planning and funding all aspects of facilities use and management.
- Prepare a new policy on minimum expenditures for preventive maintenance and a new policy on maximum permissible deferred maintenance for review and approval by the school board.
- Fund fully reactive and preventive maintenance at best practice levels.
- Contract with an experienced external firm to perform an initial building condition assessment as well as an update every five years.
- Establish a roving preventive maintenance team consisting of four additional maintenance tradespeople and technicians.
- Reinstate the full-time painter position.

- Create and fill three new custodial positions.
- Establish a chief custodian position reporting to the maintenance director.
- Select Option III of the proposed AMERESCO performance contract.
- Implement the security package detailed in the CIP of November 13, 2014.

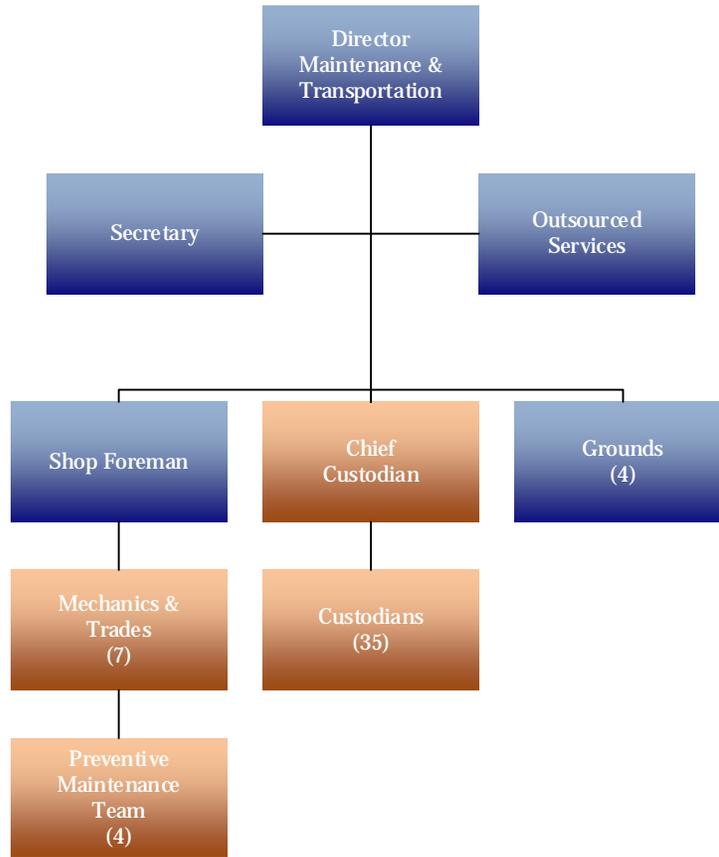
The estimated fiscal impacts of those recommendations for which the consulting team could reasonably quantify into dollars are shown below. Some recommendations will have fiscal impacts that depend on the specific implementation path chosen by the division while others will only require staff time; fiscal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

Recommendation		2014-15	2015-16	2016-17	2017-18	2018-19	Total
5.1	Create facilities master plan.	(\$100,000)	\$0	\$0	\$0	(\$50,000)	(\$150,000)
5.6	Fund fully reactive and preventive maintenance.	(\$1,791,241)	(\$1,891,241)	(\$1,891,241)	(\$1,891,241)	(\$1,841,241)	(\$9,306,205)
5.8	Hire four additional skilled maintenance workers for PM tasks.	(\$179,614)	(\$179,614)	(\$179,614)	(\$179,614)	(\$179,614)	(\$898,070)
5.9	Hire one painter.	(\$44,903)	(\$44,903)	(\$44,903)	(\$44,903)	(\$44,903)	(\$224,515)
5.10	Hire three additional FTE custodians.	(\$86,199)	(\$86,199)	(\$86,199)	(\$86,199)	(\$86,199)	(\$430,995)
5.11	Hire one chief custodian.	(\$38,043)	(\$38,043)	(\$38,043)	(\$38,043)	(\$38,043)	(\$190,215)

All recommendations in this chapter are written with independent fiscal impacts with the exception of Recommendation 5.6, which calls for spending two to four percent per year of the aggregate current replacement value of the division's facilities on maintenance and repair. Recommendations 5.1, 5.8, 5.9, 5.10, and 5.11 would typically be considered part of that two to four percent spending, but have been priced separately. Therefore, the full cost of Recommendation 5.6 has been reduced by the sum of the cost of implementation of the other five recommendations. If the division chooses to implement Recommendation 5.6, but not the others, the full cost of Recommendation 5.6 would be increased by approximately \$400,000 per year.

Assuming that all staffing recommendations are implemented, the recommended organization of the ACPS maintenance department is provided in **Exhibit 5.10**. Recommended changes are shown in orange.

Exhibit 5.10
Recommended organization for ACPS maintenance staff



Source: Created by Prismatic, May 2014.

A. 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. The lowest initial cost building material, finish, or component is frequently not the most advantageous selection. Lowest initial cost may be disadvantageous to the school division and the taxpayers.

FINDING 5.1

The division does not have a current facilities master plan. As required by statute, the school division has engaged in the in-house development of a capital improvements plan. However, such an effort is typically only a portion of a true, enduring planning process.

This lack of a full and steady commitment to planning leaves the division at risk and can lead to poor decision-making, and possibly misguided funding and management decisions. These uncertainties include, but are not limited to, a lack of the following:

- optimum decision-making about new construction, renovations, and additions of school buildings and related facilities;
- optimum long-term financing for new construction, renovations, and additions of school buildings and related facilities;
- optimum funding for preventive and reactive facilities maintenance by the board of supervisors and the school board; and
- properly reasoned building closure, re-use, sale, or demolition decisions.

RECOMMENDATION 5.1

Design and implement a continuous five-year facilities master planning protocol that support Amherst County and ACPS in working cooperatively, diligently, transparently, and realistically on planning and funding all aspects of facilities use and management.

A five-year facilities master plan should embody a continuous process that guides facilities planning, design, and construction for ACPS. As such, it must:

- transcend, as much as possible, changes brought about by replacements of elected and appointed office-holders;
- support ongoing, close cooperation between the board of supervisors and the school board;
- require the board of supervisors and the school board to recognize, and work within, best practice parameters of funding preventive maintenance activities for school facilities; and
- empower the director of maintenance and transportation to develop preventive maintenance protocols, capital improvement programs, and related documentation for submission and adoption by the school board and funding by the board of supervisors.

The five-year facilities master plan should be prepared for implementation and initiation effective with the start of 2015-16. As such, it would be called the five-year facilities master plan 2015-19. It should contain an immediate funding request, spread over the first five years, 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. The plan should be extended each year to cover a subsequent five-year period (for example, the following year, it becomes the five-year facilities master plan 2016-20). This type of plan updating should become routine to keep it useful as a guiding document. The statutorily required capital improvement plan should be wholly incorporated in, and fully coordinated with, this effort. The five-year facilities master plan should address the following:

1. the strategy required to meet the need for facility maintenance and improvement, and for the capital investments necessary to support existing and projected educational needs of ACPS;

2. the educational goals of ACPS to satisfy the needs of students, parents, educators, administrative staff and the community;
3. realistic plans to help ACPS provide for its short- and long-range facility needs; and
4. realistic spending plans on maintenance amounting to a minimum of two percent of current replacement value (CRV) of all ACPS facilities.

The following essentials should be included in plan development and maintenance:

A. Goal-Setting Around Four Priorities

Planning is a goal-oriented activity. No plans can be made without one or more goals having been identified. In this case, planners must address four critical factors throughout the planning and design process:

- quality;
- educational program;
- budget; and
- time.

Before the planning process begins, ACPS and Amherst County should acknowledge that all four priorities need to be addressed. Thereafter, they should decide which, if any, of these four priority areas is most important. For example, if ACPS is facing financial limits, then budget may cause ACPS to follow a certain path to its end. Likewise, if time is a constraint, then ACPS staff and county elected officials must consider that quality and educational specifications may have to take a slight back seat – yet not to the extent of 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. It is important for all decision-makers to become increasingly aware that decisions to fund school facilities at a lower than best practice level at the present time may obligate the school division to confront significantly larger, consequential costs in the future.

Goal setting for the five-year facilities master plan should include the following actions:

- recommend priorities and strategies concerning proposed projects that will meet the facility needs and educational goals of ACPS;
- 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 a clearer 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; and

- develop implementation guidelines for the five-year facilities master plan and the project plan of action.

B. The Facilities Master Plan Team

The ACPS superintendent and the county administrator should jointly establish a facilities master plan team. This team must function cooperatively for the master planning process to succeed. This means that there cannot be any debate over the proper funding level for facilities management, but that there can be vigorous examination, discussion, and debate concerning funding priorities and choices. Thus, there are two overriding precepts the team must use as its governing principles:

- annual spending on preventive maintenance tasks must be between two and four percent of the CRV of the ACPS building inventory; and
- the amount of deferred maintenance should never be allowed to rise above five percent of the CRV of the ACPS building inventory.

The team's core membership should consist of the ACPS superintendent, the Amherst County administrator, and the ACPS director of maintenance and transportation. The superintendent should keep the school board abreast of all developments concerning facilities planning, and the county administrator should do likewise with the board of supervisors. As necessary, the team should also include an external advisory/resource board consisting of 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 ACPS, and focus especially on educational philosophy, financing, and school facility needs. ACPS and county professional staff should be selected to support the team's work efforts.

Initially, team meetings should be conducted at least every two weeks. This will speed up 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 collaborating 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 revenue from facilities use, and a broader 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. The fact that ACPS and Amherst County administrative offices are housed in the same structure should help to expedite this important communications requirement.

C. Community Meetings

Authentic community engagement instills a sense of genuine 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. The ACPS team should 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 the National Clearinghouse for Educational Facilities website.¹

During the first round of meetings, the planning process should be explained, goals and objectives presented, and community input solicited on the basic 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 ACPS 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, close existing facilities, or consolidate two or more facilities should be explained in detail at this meeting. The plan's response to meeting the educational needs of the community discussed during the first meeting should be presented. 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-up meetings may be held to address these concerns.

D. Professional Consultant

Once the team has been established, it should hire, as soon as possible, a professional firm of planners, architects, and engineers to help prepare the initial five-year facilities master plan. The professional firm should develop a profile of the implications of the ACPS 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, enrollment data from the previous school year, and average daily membership projections for the coming five years.

The firm should assess the physical condition of the schools, along with any additional school-related buildings and facilities owned by ACPS. The data collected should be building by building, with as much detail as possible. ACPS already has an excellent database showing projected capital improvement projects and costs. Much of this information merely needs to be updated. Whatever data are compiled during the assessment should be used to analyze each facility's ability to meet the educational goals of ACPS. The firm should also review historic budgets, and projections of major construction costs and costs of renovations. An analysis of current project budgets, including any shortfalls or overages, should be made as they relate to the ability of ACPS and individual schools to meet educational goals.

FISCAL IMPACT

The initial structuring of a permanent facilities master planning process will require professional services as described above to help structure the planning process and the

¹ http://www.ncef.org/rl/community_participation.cfm

document formats. In addition, the professional service will include an initial building condition assessment, and an update every five years. However, the bulk of the work will need to be accomplished by designated ACPS and Amherst County staff on a daily basis. The consulting team estimates an initial cost of \$100,000 for contracting with an external firm to facilitate the master planning process and update the building condition assessments. An additional \$50,000 cost to update the building condition assessment should be expected every five years. This amount also includes occasional consulting advice on the master planning process. The eventual savings from best practice spending on facilities management is significant: 15 to 40 times less for every preventive maintenance dollar spent – occasionally up to the square of every timely preventive maintenance funds spent. The cost of implementing the facilities master planning process should thus have a significant impact on saving the division large future expenses on facilities management tasks.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Create facilities master plan.	(\$100,000)	\$0	\$0	\$0	(\$50,000)

FINDING 5.2

The ACPS policy manual lacks two important best practice policies concerning facilities use and management. These two policies describe best practices in the facilities maintenance area. Both policies are based on industry-accepted values:

1. spending two to four percent per year of the aggregate current replacement value of the division’s facilities on maintenance and repair; and
2. not allowing the level of deferred maintenance on all facilities in the school division to exceed five percent of their aggregate current replacement value.

The first policy establishes a minimum level of funding for all maintenance and repair. The other policy establishes a maximum amount of deferred maintenance that is acceptable. Currently, the ACPS policy manual contains the following facility maintenance-related policies (**Exhibits 5.11** and **5.12**). Legal references referring to buildings and grounds management and inspection are noted in both of the policies shown. It is therefore clear that best practice facility maintenance policies are within the scope of the Code of Virginia, 1950, as amended.



Exhibit 5.11
Buildings and grounds management and maintenance

The superintendent will have the general responsibility for the care, custody, and safekeeping of all school property. The principal of each school will be responsible for the operation, supervision, care, and maintenance of the school plant. The school division shall maintain documentation of any pesticide application that includes the target pest, the formulation applied, and the specific location of the application.

Adopted: May 20, 1993

Revised: April 7, 1994

Revised: August 18, 1994

Revised: August 13, 2009

Revised: September 9, 2010

Legal Refs.: Code of Virginia, 1950, as amended, §§ 22.1-70, 22.1-78, 22.1-79(3), 22.1-132.2, 22.1-293.D.

Source: ACPS policy manual, 2014.

Exhibit 5.12
Buildings and grounds inspection

The School Board is responsible for the maintenance of the property of the school division. In order to fulfill this responsibility, the School Board will require the schools to be inspected at reasonably frequent intervals. Inspections required by law will be performed. The results of inspections will be reported to the School Board.

Adopted: May 20, 1993

Revised: August 18, 1994

Revised: August 22, 2002

Revised: August 13, 2009

Legal Refs.: Code of Virginia, 1950, as amended, §§ 2.2-1165, 22.1-79(3).

Source: ACPS policy manual, 2014.

RECOMMENDATION 5.2

Prepare a new policy on minimum expenditures for preventive maintenance and a new policy on maximum permissible deferred maintenance for review and approval by the school board.

Exhibits 5.13 and 5.14 display the two recommended policies in draft form for further refinement, approval, and implementation. The policy drafts are formatted to conform to the policies already found in the policy book. In addition, implementation procedures will need to be written to accompany these policies.

Exhibit 5.13
Recommended asset protection index policy

Minimum Annual Expenditures for Maintenance and Repairs of School Buildings (Asset Protection Index – API)

On the basis of a landmark 1990 report by the Building Research Board of the National Research Council, the annual expenditure of two to four percent of the current replacement value (CRV) of an agency's building inventory should be budgeted and applied to costs of preventive maintenance and needed repairs to keep the buildings in functioning and serviceable condition. This percentage range of CRV is commonly called the Asset Protection Index (API).

The division will therefore budget and expend a minimum of two percent of CRV annually for preventive maintenance and repairs. This amount does not, as a rule, include capital improvements. An amount larger than two percent of CRV will need to be budgeted in cases where the preventive maintenance backlog is equal to or greater than a Facilities Condition Index (FCI) of five percent of CRV.

References: National Research Council. *Committing to the Cost of Ownership: Maintenance and Repair of Public Buildings*. Washington, DC: The National Academies Press, 1990. The findings in this document and the API concept have been underpinned as best practice in numerous other publications by authoritative facility management organizations, including the Council of Educational Facilities Planners International, and the National Clearinghouse for Educational Facilities.

Adopted:

Revised:

Legal Refs.: Code of Virginia, 1950, as amended, §§ 22.1-70, 22.1-78, 22.1-79(3), 22.1-132.2, 22.1-293.D.

Source: Prepared by Prismatic, May 2014.

Exhibit 5.14

Recommended policy on facilities condition index

Facility Condition Index Boundaries (FCI)

The Facility Condition Index (FCI) is a facility management tool used by primary and secondary school systems. Its purpose is to measure the amount of deferred maintenance present in a building inventory, such as that of a school division. It is represented as the ratio of the dollar amount of deficiencies in repair, replacement, and maintenance in a building inventory over the current replacement value (CRV) of that building inventory.

The FCI was first published in 1991 by the National Association of College and University Business Officers (NACUBO) under the title *Managing the Facilities Portfolio*. This document stipulated the following FCI ranges:

- FCI under five percent: good
- FCI between five and 10 percent: fair
- FCI over 10 percent: poor

It is therefore the policy of this school division to maintain an FCI of under five percent. Should an FCI of greater than five percent be found in the division's building inventory, corrective spending on additional maintenance, repair, and replacement tasks will be needed to bring the FCI back into the range of below five percent. The division will have a building condition assessment conducted or updated every five years in order to determine the most current FCI.

Reference: *Managing the facilities portfolio: a practical approach to institutional facility renewal and deferred maintenance*. National Association of College and University Business Officers. ISBN 978-0-915164-59-2. The findings in this document and the FCI concept have been underpinned as best practice in numerous other publications by authoritative facility management organizations, including the Council of Educational Facilities Planners and the National Clearinghouse for Educational Facilities.

Adopted:

Revised:

Legal Refs.: Code of Virginia, 1950, as amended, §§ 22.1-70, 22.1-78, 22.1-79(3), 22.1-132.2, 22.1-293.D.

Source: Prepared by Prismatic, May 2014.

FISCAL IMPACT

The consulting team estimates this recommendation will require 40 work hours by the superintendent and staff to complete draft policies for presentation to the school board, along with appropriate implementation procedures.

FINDING 5.3

ACPS conducts a well-managed community use of facilities program. The school board policy book contains a detailed, well-considered set of policies and related procedures for the management of community use of school facilities by outside groups in the



community. Much of this policy appears to be along the guidelines provided by the Virginia Department of Education (VDOE), but great effort has clearly been applied to provide as much detail and special consideration as possible.

As this is a small school division, no extraordinary staffing has been set aside for the purpose of administering the community use of facilities function. Completed applications are first routed through the appropriate school principal who approves the arrangements, and forwards the application to the superintendent's office. The superintendent then approves the terms of the facilities use agreement, in consultation with the site principal as necessary. The site principal is then responsible for all agreed-upon preparations to be made by the school, and the organization leasing the space must comply with all agreed-upon requirements.

COMMENDATION

ACPS has an exemplary community use of facilities program, given the relatively small size of its school division.

B. 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, and the deferral of preventive maintenance, have proven to lead to increased costs of facility operations by shortening the useful life span of equipment and buildings. Moreover, the cost of repairing the failure of a preventive maintenance item is 15 to 40 times the cost of preventive maintenance, and sometimes much more. Therefore, 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.

FINDING 5.4

The maintenance operations of ACPS are conducted in a complete best practices manner, given the prevailing staffing and under-funding limitations.

Based on visits to all schools, interviews with key staff members, and observations of patterns of behavior, the consulting team finds the ACPS maintenance department to be exemplary in many ways, including the following:

- Maintenance trades and mechanics exhibit an unmistakable team mentality and spirit, seeking opportunities to assist colleagues in any possible manner to get work assignments accomplished. This pervasive attitude became apparent during focus group interviews. In addition, a specific example was encountered in the midst of heavy rain, during a visit to Madison Heights Elementary School, where several members of the maintenance staff worked together to resolve a road flooding and erosion problem that threatened to make the approach road to the school impassable. This was in no one's job description, but by every participant's own view and actions, every job description contained this task.

- School visits by the consulting team revealed an outward appearance of constant attention to maintenance: no broken floor or ceiling tiles or windows were in evidence. With a few exceptions, no other blatant signs of neglect were seen. This is a strong indication of a dedicated and loyal maintenance staff, especially given the pervasive staffing deficiencies and under-funding of the maintenance function.

COMMENDATION

The ACPS maintenance staff demonstrates an unyielding commitment and dedication to maintaining the facilities of the school division.

FINDING 5.5

ACPS has prepared a detailed and credible capital improvement projects (CIP) list based on semi-annual facility walk-through inspections. The director of maintenance and transportation and the part-time director of support services have conducted building walk-through inspections on a semiannual basis since 2009. Based on these inspections, the director of maintenance and transportation has prepared a detailed list of items requiring replacement or remediation. **Appendix B** shows the 2014 CIP list because it is the most current documentation available. This list is professionally prepared and reflects best practices in the identification and articulation of capital improvement projects. **Exhibit 5.15** lists the top 10 priorities the division listed in the CIP list along with their estimated costs.

**Exhibit 5.15
Excerpt from 2014 CIP list**

Priority	Immediate Need	Estimated Cost
1	Security enhancements	\$ 2,134,644
2	T12 light fixture replacement	\$ 429,946
3	HVAC equipment replacement	\$ 6,374,539
4	Roof replacement	\$ 4,844,733
5	Gym floor resurfacing	\$ 361,400
6	Parking lot paving & seal coating	\$ 597,376
7	Repair concrete entrances at MHES & AMS	\$ 55,542
8	ACPS pupil transportation	\$ 3,121,415
9	Paint buildings (all 11 on rotating schedule)	\$ 799,368
10	Construct ACPS storage building	\$ 180,250

Source: ACPS, January 2014.

COMMENDATION

ACPS has used its in-house expertise to prepare a realistic and actionable CIP list on an annual basis since 2009.

FINDING 5.6

Amherst County does not fund facilities maintenance of ACPS at best practice levels. An examination of maintenance funding levels by ACPS since 2008 has revealed a steady, but insufficient, amount of funding dedicated to maintenance and repairs of school facilities. A considerable amount of deferred maintenance has accumulated during this time.

This endangers ACPS finances because all resulting deferred maintenance will cost many times more to cure than proper initial funding of maintenance needs.

The asset protection index (API) requires a best practice funding of maintenance and repair activities at an order of magnitude equal to between two and four percent of the CRV of the facilities inventory (See **Exhibit 5.13** for the recommended policy on API). Currently, ACPS funds maintenance and repairs at the level illustrated in **Exhibit 5.16**.² This funding level has been flat for at least the past six years. Although it is uncommon to include all custodial salaries and materials in this total, the consulting team has included it in this calculation.

Exhibit 5.16
Typical annual maintenance funding level at ACPS since 2008

Maintenance Funding Category	Funding Amount
Labor for Reactive Maintenance*	\$ 202,065
Labor for Preventive Maintenance*	\$ 67,355
Materials for Reactive Maintenance	\$ 61,507
Materials for Preventive Maintenance	\$ 42,643
Custodial Labor (100% PM)	\$ 948,191
Custodial Materials	\$ 45,057
Outsourced Maintenance	\$ 291,180
Total Typical Maintenance Funding	\$ 1,657,998

Source: Prepared by Prismatic from data provided by ACPS, May 2014.

**This split between reactive and preventive maintenance is based on estimates provided by the ACPS maintenance department.*

The total insured value of ACPS facilities is \$114.6 million. As noted previously, the consulting team uses the current insured value synonymously with the CRV. Two percent of this amount is \$2.3 million. This should be the minimum funding for maintenance at ACPS, using the best practices API. Within the two to four percent guideline of the API, the range of funding should be from a minimum of \$2.3 million to a maximum of \$4.6 million. Currently, ACPS is at 1.5 percent. Given the fact that the consulting team has applied every conceivable maintenance dollar to its calculation of ACPS funding, this discrepancy is not an inconsequential amount. It is a serious deficiency of more than \$3.8 million over the past six years. This amount is maintenance funding that should have been spent, but instead has been deferred.

In the long run, a chronic unaddressed accumulation of deferred maintenance will cost Amherst County taxpayers an average of 15 to 40 times the original maintenance cost that has been deferred. In some cases, the cost of deferring maintenance can be the square of the original cost, and sometimes more.³ Consequently, the \$3.8 million of deferred maintenance, if not “cured” rapidly, will most likely cost the taxpayers at least \$57 million or more over the coming decade.

Some areas of neglected facilities maintenance are beginning to show through. Preventive maintenance that has simply not been done due to lack of funds and manpower is painting,

² National Research Council. *Committing to the Cost of Ownership: Maintenance and Repair of Public Buildings*. Washington, DC: The National Academies Press, 1990.

³ Geaslin, D.T. *The disastrous effects of deferring maintenance*. Peterson Predictive Maintenance Retrieved from http://www.petersonpredict.com/whatispm_deferredmaint.php

caulking (interior and exterior), seal coating or paving parking lots, rubber gym floor resurfacing and sidewalk refurbishment. Some walls in schools visited by the consulting team are in need of being painted, and some exteriors show weathering that has created a need for caulking, painting, and other envelope-sealing tasks. Parking lots in several locations appear to have received insufficient preventive maintenance, and thus have deteriorated to the point where sealing is no longer an option. Several of the rubber gymnasium floors are on the verge of their protective surfaces being not only worn off, but the substrates fragmented, and crumbled. These items are the visible aspects of maintenance deferral. During interviews, the consulting team also took notice of the less visible aspects of preventive maintenance, such as the maintenance department's lack of resources to perform preventive maintenance more aggressively and proactively on such equipment as pumps and motors. The fastidious, meticulous, and painstaking replacement of seals, couplings, impellers, dielectric unions, etc. would without doubt prolong the life of such equipment, whereas bare minimum attention would lead to earlier failure and a need for replacement before the end of the equipment's expected service life. **Exhibits 5.17, 5.18, and 5.19** show examples of deferred maintenance where responsive and timely repairs will prevent a larger failure from occurring later.

Many of the items contained in the 2014 CIP are actually tasks that have so far been deferred and should have been completed in earlier years. These items are accumulated deferred maintenance amounting to nearly \$8 million. They will amount to much more if they are deferred until complete failure occurs.

Not included in this list are the urgent roof replacements that have been included instead as part of the AMERESCO Option III performance contract provisions. If these roof replacements are not selected as part of the AMERESCO contract, they would be included in a typical maintenance program.

Exhibit 5.17
Example of exterior caulking and painting needed now before a more costly failure occurs



Source: Prismatic, April 2014.

Exhibit 5.18
Amherst County High School tennis courts require complete renovation



Source: Prismatic, April 2014.

Exhibit 5.19
Gymnasium floors must be resurfaced before they fail and require replacement



Source: Prismatic, April 2014.

Preventive facilities maintenance activities have been underfunded since at least 2008. The consulting team believes this has occurred because of a lack of appreciation within ACPS and Amherst County of the importance of funding maintenance at universally accepted best practice levels, as well as an unawareness of the financial consequences that are likely without proper support for preventive maintenance. The consulting team believes further that ACPS and the County will save significant sums of money by adhering to best practice principles in the upkeep of school facilities.

RECOMMENDATION 5.6

Fund fully reactive and preventive maintenance at best practice levels.

The division should use the five-year facilities master planning protocol described elsewhere in this chapter to implement a program. In addition, the division should prepare a more detailed CIP based on a periodic facilities condition assessment.

FISCAL IMPACT

This school division should catch up on maintenance deferral, while at the same time provide an annual level of funding that will prevent the maintenance deferral from further increasing in size. The timeline below shows the minimum annual funding for maintenance of \$2.3 million, plus the removal of about \$7.8 million in deferred maintenance during the coming five-year period. Since the common annual funding of maintenance has been at \$2 million, the difference of \$640,000 is shown. The annual cost of removing accumulated deferred maintenance over the next five years is about \$1.6 million and is therefore also shown as an additional fiscal impact. If a building condition assessment finds that this latter amount of deferred maintenance is not larger than currently estimated, the funds to remove or “cure” deferred maintenance should no longer be required after five years.

The other recommendations of the chapter that result in expenditures can be fiscally included as forms of preventive maintenance. Thus, the total expenditure of \$2,240,000 per year encompasses other expenditures in the chapter, and the true fiscal impact of this recommendation if all other costly recommendations are implemented is reduced.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Reduce maintenance deferrals.	(\$640,000)	(\$640,000)	(\$640,000)	(\$640,000)	(\$640,000)
Remove accumulated deferred maintenance.	(\$1,600,000)	(\$1,600,000)	(\$1,600,000)	(\$1,600,000)	(\$1,600,000)
SUBTOTAL	(\$2,240,000)	(\$2,240,000)	(\$2,240,000)	(\$2,240,000)	(\$2,240,000)
Reduce by sum of other expenditures recommended in chapter.	\$448,759	\$348,759	\$348,759	\$348,759	\$398,759
TOTAL	(\$1,791,241)	(\$1,891,241)	(\$1,891,241)	(\$1,891,241)	(\$1,841,241)

FINDING 5.7

The school division has not performed formal building condition assessments using outsourced expertise on a regular basis. Even though the director of maintenance and transportation performs building walk-throughs at approximately six-month intervals to identify capital improvement needs at the division, the division has not conducted formal building condition assessments with outside consultants. This would help assure that a thorough and independent evaluation is carried out.

Based on the consulting team’s fieldwork, there are likely significant facility needs throughout the division. **Exhibit 5.20** shows water ponding on the roof of Amherst Middle School, while **Exhibit 5.21** shows damage to the gym floor at Amherst High School.

Exhibit 5.20
Standing water on roof of Amherst Middle School



Source: Prismatic, April 2014.

Exhibit 5.21
Damaged gym floor at Amherst High School



Source: Prismatic, April 2014.

Formal, independent building condition assessments are the best source of information about the extent of a school division's deferred maintenance backlog, and the determination of the facilities condition index, FCI. The FCI percentage must be known in order to identify the extent of deferred maintenance, and the amount of money the division needs to spend to reduce this backlog to below five percent of the CRV of the division's building stock.

A building condition assessment, when performed every five years, will serve as the most reliable basis for the preparation of thorough and detailed capital improvements programs. Consequently, ACPS does not know the full extent of its deferred maintenance backlog, nor

is it certain that all pertinent projects and actions are included in its CIP list. **Exhibit 5.22** provides the deferred maintenances projects listed in the 2014 CIP.

Exhibit 5.22
Deferred maintenance items in 2014 CIP

Maintenance Task from 2014 CIP	Estimated Cost
T12 Lamp Replacement	\$ 429,946
Paving and Seal Coating Parking Lots	\$ 597,376
Repair Concrete at MHES and AMS	\$ 55,542
Painting	\$ 799,368
Gym Floor Resurfacing	\$ 361,400
Renovate Restrooms & Locker Rooms	\$ 4,513,500
Repair / Replace Central Clock Systems	\$ 930,852
Renovate Tennis Courts at Amherst County HS	\$ 136,874
Accumulated Deferred Maintenance From 2014 CIP	\$ 7,824,858

Source: Created by Prismatic Services from data supplied by ACPS, May 2014.

RECOMMENDATION 5.7

Contract with an experienced external firm to perform an initial building condition assessment as well as an update every five years.

The initial building condition assessment will be made easier to conduct because of the CIP information the division has already prepared with in-house expertise. This list can be used by the independent contractor as the beginning point of its assessment. Additional building condition deficiencies can be placed on the list, and items already on the list can be adjusted, corrected or updated as appropriate. Moreover, the 'back of the envelope' analysis by AMERESCO has resulted in a thorough list of energy conservation measures (ECMs) that provide a further indication of projects that should be funded as soon as possible. This serves as further input to the first building condition assessment.

Once the five-year rhythm has been established, the building condition assessment process becomes merely an updating activity, and not a major 'from scratch' undertaking. The building condition assessment becomes an integral part of the facilities master planning process previously described. The building condition assessment's results will thus serve as input to the five-year facilities master planning protocol, and serve to populate the statutorily required CIP.

FISCAL IMPACT

Facilities condition assessments must be an integral component of facilities master planning. Therefore, the cost of the next building condition assessment was included in the facility master planning recommendation.

FINDING 5.8

The school division's facilities maintenance function is insufficiently staffed to perform all of the preventive maintenance tasks required under full funding.

The ACPS budget has no line item referring to preventive maintenance (PM). Although some PM work is being conducted, the absence of a special category for PM is an indication that it has not been given the full consideration it deserves and requires. At the moment, the



precise extent of the deferred maintenance backlog at ACPS is unknown because no full and periodic building condition assessments have been conducted by the division. However, there is strong evidence that maintenance work has been underfunded, and a deferred maintenance backlog has been accumulating at least within the past six years. In part, this problem has occurred not only because of below-best-practices funding, but also because the number of positions for maintenance trades and mechanics at ACPS is considerably less than the typical allocations of positions for divisions of comparable size.

As noted previously, ACPS employs six maintenance tradespeople and mechanics. Based on the gross floor area of the division's building inventory of 760,266, this amounts to a ratio of 126,711 square feet per maintenance trade or mechanic. This number can be reduced to 102,895 by counting the outsourced HVAC contractor as a maintenance trade.

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,⁴ there is no direct agreement on industry standard maintenance staffing formulas. However, the 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 760,266 square feet to maintain in ACPS, this would translate into approximately 17 full-time maintenance employees. Even if the four groundskeepers were included in the total, and HVAC outsourcing counted as an additional maintenance trade, six additional maintenance trades and/or mechanics would still be needed.

RECOMMENDATION 5.8

Establish a roving preventive maintenance team consisting of four additional maintenance tradespeople and technicians.

The team should possess the following preventive maintenance skills: electrical, plumbing, mechanical, and carpentry/locksmith. This team may be supplemented when possible by existing maintenance trades and technicians.

After one year of activity, an evaluation should be made by the director of maintenance and transportation to determine if this team is sufficient to complete all needed preventive maintenance at ACPS facilities, including any deferred maintenance. If deferred maintenance removal should require outsourcing to one or more contractors, such action should be initiated in 2015-16. If an additional roving PM team is justified, or if additional trades or mechanics are needed to supplement the current PM team, such action should also be taken at that time.

FISCAL IMPACT

The estimated cost of four additional skilled maintenance workers is \$179,614 per year, including benefits. One alternative to incurring this cost would be to work with the county board of supervisors to employ a joint force of trades and mechanics. They could work in both county buildings and schools to provide preventive maintenance. Another alternative would be greater reliance on outsourced services.

⁴ Available from <http://www.fldoe.org/edfacil/manoguid.asp>

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Hire four additional skilled maintenance workers for PM tasks.	(\$179,614)	(\$179,614)	(\$179,614)	(\$179,614)	(\$179,614)

FINDING 5.9

ACPS lacks a full-time position for a professional painter. Facilities maintenance lost its only full-time painter position due to attrition after the incumbent’s retirement. Painting is an essential and crucial maintenance activity to keep facilities from looking neglected and abused, which invites further abuse and vandalism. Hiring outside contractors is not typically an effective, economical substitute because painting consists often of quick response needs to repair damage, including graffiti. An on-site, full-time employee can respond to such situations more quickly and reliably.

Since 2008, the division has spent less on any type of painting (in-house or outsourced) than previously. ACPS has employed a custodian in the summer to address some of the areas in the worst need of painting. However, the approach has been less than satisfactory, as many areas are left in need of painting (**Exhibit 5.23**). The appearance of neglect from stained or streaked walls invites abuse.

Exhibit 5.23
Walls requiring new paint



Source: Prismatic, April 2014.

Moreover, a full-time professional painter is needed to serve the division as the overseer of painting companies the division hires for larger jobs. Painting is a profession requiring not only painting skills, but also an overall knowledge of the types of substrate preparations and applicable coatings for different exposures, uses, and desired resistance to wear and tear. Hiring unskilled youth or adults as a substitute for a full-time painter position is not a practical alternative.

RECOMMENDATION 5.9

Reinstate the full-time painter position.

As needed, this position should be supplemented with contract work for larger scale painting needs. Supervision of painting contractors should be included in the job description.

FISCAL IMPACT

The estimated cost for a full-time, skilled, experienced, professional painter is \$44,903 per year, including benefits.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Hire one painter.	(\$44,903)	(\$44,903)	(\$44,903)	(\$44,903)	(\$44,903)

C. Custodial Operations

Safe, clean, and sanitary facilities are essential elements of the education environment. Custodians 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.⁵

Data presented in the APPA 2011-12 Facilities Performance Indicator Report⁶ 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.

Based on the consulting team's school visits, an adherence by the ACPS custodial staff to level 2 cleaning in toilet rooms, and a mixture of level 2 and 3 elsewhere, was evident. In no instances was there evidence of cleaning neglect, or any other outright failure of custodial care and attention to detail. It is a goal among ACPS custodians to reach a uniform Level 2 in all schools.

In addition to their regular cleaning duties, custodians also replace ceiling tiles (when no cutting or special fitting is required), and lamps (bulbs and tubes). They assist with traffic control during arrival and dismissal times, and perform snow removal from sidewalks.

FINDING 5.10

ACPS lacks sufficient custodial positions. Based on established measures for full-time custodians per floor area, the age and condition of the buildings, and level 2 and 3 cleaning standards, a minimum additional three FTE positions is required. Insufficient custodial

⁵ Additional detail can be found in APPA *Operational Guidelines for Educational Facilities: Custodial*; Third Ed., 2011; pp. 72-3.

⁶ <http://appa.org/research/fpi/index.cfm>

staffing can result in a slow erosion of building cleanliness that may cause unsanitary conditions or premature deterioration of interior finishes.

The Association of School Business Officials (ASBO) recommends a ratio of 20,000 square feet of floor area per one FTE custodian.⁷ With a total of 727,380 square feet of school building floor area in its inventory, the division should have 36 FTE custodians. Instead, ACPS maintains staffing at 32 FTE (**Exhibit 5.24**). Mobile classroom units are not accounted for in the gross square footage used to calculate the 20,000 square foot per custodian allocation.

**Exhibit 5.24
2013-14 custodial staff distribution at ACPS schools**

School	Total Square Footage	Sq. Ft. divided by 20,000	Actual Number of Custodians Assigned	FTE Custodians per Sq. Ft.
Amherst HS	214,792	10.7	7.5	0.7
Amherst MS	70,509	3.5	3.0	0.9
Monelison MS	100,016	5.0	4.0	0.8
Amelon ES	57,861	2.9	3.0	1.0
Amherst ES	59,701	3.0	3.0	1.0
Central ES	57,272	2.9	3.0	1.0
Elon ES	49,361	2.5	2.5	1.0
Madison Heights ES	59,500	3.0	3.0	1.0
Pleasant View ES	30,235	1.5	1.5	1.0
Temperance ES	28,133	1.4	1.5	1.1
Total	727,380	36.4	32.0	0.9

Source: Compiled by Prismatic, 2014.

RECOMMENDATION 5.10

Create and fill three new custodial positions.

Since it is the goal among ACPS custodians to reach a uniform Level 2 cleanliness in all schools, it is important that a commensurate FTE custodial staffing is reached. The three new custodians should be assigned to those schools with the greatest staffing and/or cleanliness deficiencies. This might be accomplished by adding the three new positions to Amherst High School. Amherst High School appears to be most significantly understaffed, with only 0.7 FTE custodians assigned to it per 20,000 square feet. Adding three full-time custodians to the high school will bring its ratio to 1.0 and will do the same to the division’s overall staffing ratio. It is assumed that ACPS will make an effort to phase out as many mobile classrooms as possible.

FISCAL IMPACT

The estimated cost for an additional three FTE custodians is \$86,199 per year, including benefits.

⁷ http://www.ncef.org/rl/custodial_staffing.cfm



Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Hire three additional FTE custodians.	(\$86,199)	(\$86,199)	(\$86,199)	(\$86,199)	(\$86,199)

FINDING 5.11

Custodians report to individual building principals. In the experience of the consulting team, site-based management extends to the custodial staff in the vast majority of school divisions across the United States. It is considered a best practice in most circles to include the custodians serving in a school among the reports to the site principal.

Direct reports by custodians allow principals to fit custodial assignments to their buildings’ characteristics, class schedules, after-hours programs, and other operational features. However, uniformity of custodial care may become less than optimal if there is no central administration of cleaning standards, selection, and use of cleaning agents and tools, and uniform, division-wide custodial training. While this represents a traditional model, the sole reporting to site principals may compromise division-wide cleaning uniformity due to insufficient training, and the varying interpretations of Level 2 and 3 cleaning standards by the site principals.

RECOMMENDATION 5.11

Establish a chief custodian position reporting to the maintenance director.

All custodians should report to this position, in addition to their reports to site principals. Custodians should be evaluated jointly by the chief custodian and the principals. The chief custodian will be responsible for joint hiring decisions with the principals and alone for ordering all supplies, selection of training materials and topics, conduct of training, selection and warehousing of the custodial supplies, spot inspections of cleaning work, as well as the bid administration and letting of contracts for services and supplies.

FISCAL IMPACT

The estimated cost for a chief custodian position is \$38,043 per year, including benefits.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Hire one chief custodian.	(\$38,043)	(\$38,043)	(\$38,043)	(\$38,043)	(\$38,043)

FINDING 5.12

ACPS custodians perform with diligence and dedication as evidenced by their consistent achievement of Level 2 and 3 cleanliness, even with insufficient staffing. The consulting team visited all of the division’s school buildings. Level 2 cleanliness was found in all inspected toilets, even in mid school day. A mixture of Level 2 and 3 cleaning was found elsewhere. No unattended or messy areas were in evidence. This consistency is commendable in light of the fact that custodians are currently not incentivized to follow a uniform cleaning regimen by reporting only to their principals, and by being moderately understaffed.



COMMENDATION

ACPS custodians are commended for their consistent cleaning of school facilities despite being moderately understaffed.

D. 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 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

ACPS and Amherst County have selected AMERESCO as the energy systems company (ESCO) to implement an energy performance contract. The following excerpts from the school board minutes of March 6, 2014 provide an overview of the three options in the AMERESCO performance contract proposal:

Option I: Self-funded projects – does not include any new capital money from the Amherst County Board of Supervisors. Due to the increase in years of financing additional projects were added to the original proposal. Most notable are the chillers at Amherst County High School. If the self-funding option is chosen, Monelison Middle School, Amherst Elementary School, Central Elementary School, part of Elon Elementary School, Pleasant View Elementary School, and Temperance Elementary School would not be included in the HVAC updates. Lighting, water, and energy management systems would be addressed at all locations.

Option II: Included in Option II are the self-funded projects plus projects that address all of the HVAC concerns in Amherst County Public Schools. If Option II is chosen, there will be a commitment of funding by the locality of \$4,400,000. If Option II is approved the construction period will be extended to 18 months instead of 12 months.

Option III: Included in Option III are self-funded projects, HVAC concerns for all locations, and roof repairs and replacement. If Option III is approved, there will be a commitment of funding by the locality of \$8,740,000.

The school board has recommended to the county board of supervisors the selection of Option III, which will result in the greatest overall energy savings over the long run. **Exhibit 5.25** displays the total list of the Option III energy conservation measures (ECM). Below are frequently used abbreviations:⁸

- ECM= Energy Conservation Measure
- WSHP= Water Source Heat Pump
- MAU= Make-up Air Unit
- PTAC= Packaged Terminal Air Conditioner
- UV= Unit Ventilator
- SCUUV= Self-Contained Unit Ventilator
- HPUV= Heat Pump Unit Ventilator
- RTU= Rooftop Unit

Items labeled * and shown without a dollar amount were taken out of Option III because they are either included in other ECMs, or are not needed, in the opinion of AMERESCO. For example, ECM No. 2, lighting controls, is not needed because building users have exhibited responsible behavior in turning off lights when they leave a room. Thus, the additional savings realized from the installation of lighting controls would not justify the cost of the controls.

⁸ <http://www.climate makers.com/glossary.htm>

Exhibit 5.25
List of energy conservation measures in AMERESCO Option III

Energy Conservation Measure	School	Installation Cost
1 Lighting System Improvements		\$ 1,003,333
2 Lighting Controls*		\$
3 Water Conservation		\$ 312,074
4 Integrated and New Energy Management Systems		\$ 3,293,423
5 Variable Primary Chilled Water Pumping*	Amherst HS	\$
6 Replace 50 Ton Chiller	Amherst HS	\$ 120,203
7 Replace 245 Ton Chiller	Amherst HS	\$ 629,304
8 Replace 145 Ton Chiller	Amherst MS	\$ 530,083
9 Replace Ceiling Mounted UVs	Amelon ES	\$ 318,267
10 Replace Floor Mounted UVs	Amelon ES	\$ 96,309
11 Replace Classroom PTACs w/ Heat Pump UVs	Amherst ES	\$ 610,097
12 Replace Small PTACs	Amherst ES	\$ 85,289
13 Replace Classroom PTACs w/ Heat Pump UVs	Central ES	\$ 535,697
14 Replace Small PTACs	Central ES	\$ 38,322
15 Replace Ceiling Mounted UVs	Elon ES	\$ 159,913
16 Replace Classroom PTACs w/ Heat Pump UVs	Pleasant View ES	\$ 210,296
17 Replace Classroom PTACs w/ Heat Pump UVs	Temperance ES	\$ 253,647
18 Variable Primary Chilled Water Pumping*	Amherst MS	\$
19 Variable Speed Condenser Water Loop Pumping*	Madison Heights ES	\$
20 Replace MAU	Amherst ES	\$ 90,462
21 Replace MAU	Central ES	\$ 87,178
22 Replace MAU	Madison Heights ES	\$ 85,759
23 Replace Penthouse WSHPs	Madison Heights ES	\$ 284,736
24 Demand Controlled Ventilation		\$ 111,830
25 Propane Conversion*	Amelon ES	\$
26 Condensing Boiler Replacement	Amelon ES	\$ 221,055
27 Fuel Oil Boiler Replacement*	Amelon ES	\$
28 Propane Conversion*	Central ES	\$
29 Condensing Boiler Replacement	Central ES	\$ 236,538
30 Fuel Oil Boiler Replacement*	Central ES	\$
31 Propane Conversion – Main Mechanical Room	Amherst HS	\$ 176,378
32 Propane Conversion – Vocational Mechanical Room	Amherst HS	\$ 127,860

Exhibit 5.25 (continued)
List of energy conservation measures in AMERESCO Option III

Energy Conservation Measure	School	Installation Cost
33 Propane Conversion	Amherst MS	\$ 125,882
34 Condensing Boiler Replacement*	Pleasant View ES	\$
35 Condensing Boiler Replacement*	Temperance ES	\$
36 Replace Electric Domestic Hot Water Heater	Monelison MS Gym	\$ 106,461
37 Replace Office Heat Pump	Amelon ES	\$ 16,662
38 Replace Room 27, 29 and Library Heat Pump	Amelon ES	\$ 16,662
39 Replace McQuay Packaged Air-Cooled Chiller	Amherst HS	\$ 139,594
40 Replace Trane Split Air-Cooled Chiller	Amherst HS	\$ 287,802
41 Replace Cafeteria Self-Contained UVs with Split Heat Pump*	Amherst ES	\$
42 Replace Floor Mounted SCUVs with Split Heat Pump UVs	Amherst ES	\$ 179,686
43 Replace Cafeteria SCUVs with Split Heat Pump UVs*	Central ES	\$
44 Replace Floor Mounted SCUVs with Split HPUVs	Central ES	\$ 134,818
45 Replace Floor Mounted WSHP UVs – Madison Heights Elementary	Madison Heights ES	\$ 159,494
46 Replace PTAC Heat Pumps	Monelison MS	\$ 100,283
47 Replace Split Heat Pump UVs	Monelison MS	\$ 395,373
48 Replace SCHP UVs with Split HPUV	Monelison MS	\$ 588,027
49 Replace Band, Library, Admin, and Room 133 RTUs	Monelison MS	\$ 86,529
50 Replace Cafeteria RTUs	Monelison MS	\$ 139,866
51 Replace Gymnasium Split-Systems	Monelison MS	\$ 84,705
52 Replace Kitchen MAU and Exhaust Fan*	Monelison MS	\$
53 Replace Cafeteria SCUVs with Split Heat Pump UVs	Pleasant View ES	\$
54 Replace Office Heat Pump	Pleasant View ES	\$ 16,628
55 Replace Cafeteria SCUVs with Split Heat Pump UVs*	Temperance ES	\$
56 Energy Information and Education Kiosks*		\$
57 Replace Vocational Wing Steam Boiler	Amherst HS	\$ 72,568
58 Replace Floor Mounted Split Heat Pumps	Elon ES	\$ 165,139
59 Replace Office Split Heat Pump	Elon ES	\$ 16,628
60 Replace Rooftop Heat Pump	Central ES	\$ 18,964
61 Replace PTACs	Pleasant View ES	\$ 25,433
62 Replace PTACs	Temperance ES	\$ 32,384
63 Replace Main Mechanical Hot Water Boiler	Amherst HS	\$ 77,630
64 Roof Replacement	Amelon ES	\$ 373,264
65 Roof Replacement #1	Central ES	\$ 131,002



Exhibit 5.25 (continued)
List of energy conservation measures in AMERESCO Option III

Energy Conservation Measure		School	Installation Cost
66	Roof Replacement #2	Central ES	\$ 244,512
67	Roof Replacement #1	Amherst HS	\$ 115,283
68	Roof Replacement #2	Amherst HS	\$ 160,133
69	Roof Replacement #3	Amherst HS	\$ 125,077
70	Roof Replacement #4	Amherst HS	\$ 222,423
71	Roof Replacement	Amherst ES	\$ 574,111
72	Roof Replacement	Amherst MS	\$ 1,061,740
73	Roof Replacement	Madison Heights MS	\$ 125,100
74	Roof Replacement	Monelison MS	\$ 1,308,070
75	Roof Replacement	Pleasant View ES	\$ 93,171
76	Roof Replacement	Temperance ES	\$ 103,578
77	Roof Replacement – Non-Phenolic	Amherst HS	\$ 671,105
Total all above ECMs			\$ 17,913,840
Interest accrued during construction			\$ 471,458
Customer contribution (financed separately from performance contract)			\$ (9,275,000)
Total ECMs (INC. IDC) financed with energy savings			\$ 9,110,298

Source: AMERESCO and ACPS, 2014.

The consulting team's findings, based on a review of CIP data and building visits, indicate an HVAC infrastructure that consists largely of equipment that has reached the end of its expected service life. Additionally, many of the roofs in the building inventory of ACPS are also past their service life expectancy.

RECOMMENDATION 5.13

Select Option III of the proposed AMERESCO performance contract.

The Amherst County board of supervisors should confirm the selection of Option III of the proposed AMERESCO performance contract. Option III addresses specifically the items in most urgent need of replacement. Option III thus affords ACPS nearly \$18 million of urgently needed replacements of HVAC equipment and roofs for a total cost of slightly more than \$9 million (plus interest if financed), with the remainder funded from energy savings used as collateral in the AMERESCO performance contract. This choice is inarguably to the best advantage of ACPS and the board of supervisors.

FISCAL IMPACT

The guaranteed energy savings of the AMERESCO performance contract amount to \$13.2 million over a projected 18-year period. This is the minimum savings, and is guaranteed by the contract. The principal amount borrowed via the collateral of energy savings will be \$9.1 million, to be paid back over 18 years with an estimated amount of interest of \$3.6 million, for a total of \$12.7 million. The total cost of energy conservation measures implemented is estimated to be \$ 17.9 million. The total amount to be financed or contributed from available funds by Amherst County beyond the performance contract financing is \$9.3 million. Thus, the school division will obtain nearly \$18 million in energy-saving new equipment and roofs for many millions of dollars less. This equipment is in need of replacement regardless of whether or not a performance contract is implemented. Further neglect of replacing the roofs and the HVAC equipment included in Option III puts the school division at great risk not only of excessive financial loss from equipment and roof failures, but also of potential harm to building users.

FINDING 5.14

ACPS implemented a far-reaching energy policy in 2009 with consistent positive results. Based on staff interviews, it appears that a pervasive "energy conservation attitude" has been achieved among all staff members via the energy policy implemented five years ago. Administrators, teachers, custodians and bus drivers have learned the most important behaviors and actions to make the division more energy conscious. Included among these learned behaviors are:

- shutting off lights when leaving a room;
- adjusting thermostats to their proper settings for heating and cooling modes;
- shutting off computers, interactive whiteboards and the like at the end of the day;
- unplugging power adapters, chargers, and other items creating phantom loads when not in use;
- keeping buses from excessive idling;
- avoiding the use of personal devices (refrigerators, heaters, fans, etc.);

- recycling materials whenever possible;
- closing doors and windows; and
- recycling cardboard boxes, #10 cans, water bottles, etc.

The details of this policy are contained in **Appendix C**. A corroboration of the policy's effectiveness was obtained from AMERESCO, the energy services company selected for the performance contract. The company decided not to recommend lighting controls as an ECM. They concluded that because staff was diligently turning off lights after they had left a room, the cost of the lighting controls could not be recovered because staff behavior was already causing the energy savings to be realized.

The full energy savings attributable to this policy have not been calculated, except for the reduction in electrical energy use. Usage records at ACPS show an average monthly reduction in Kilowatts used of 13,805 from this behavior-based approach. Using that number multiplied by the average cost per Kilowatt over the past six years (\$0.08), ACPS staff calculates the average monthly savings to be \$1,104, which would equal a yearly savings of \$13,250, and a total so far of \$79,500.

COMMENDATION

ACPS has implemented an effective energy conservation policy, with excellent results for over five years.

E. Security

Many schools already have security technology in place, such as surveillance cameras, perimeter control, and access control. However, no facility security measures make a school unassailable. Nevertheless, improved security, among other measures, has resulted in a decrease in school-based homicides and violent crimes over the past two decades.⁹ Students, teachers, and other division employees deserve a safe school environment in which to work and learn.

FINDING 5.15

The current CIP, dated November 14, 2013, contains a security package that includes significant security measures and upgrades. This package is identified as having the highest priority of implementation in the CIP. The package consists of:

- upgrades of electronic door locks;
- installation of entry vestibules;
- upgrades of exit hardware;
- replacement of exterior and interior doors;
- lockset upgrades;
- additional security cameras; and

⁹Hutchinson, A. National School Shield Task Force, (2013). *Report of the national school shield task force*. Retrieved from website: www.nraschoolshield.com/NSS_Final_FULL.pdf

• safety bollards.

While school facilities cannot be made attack-proof, state-of-the-art entry and exit hardware, entrance vestibules, break-in resistant doors, lockdown appropriate locksets, security cameras, and bollards have proven themselves highly effective in reducing threats from outsiders, massacres, and similar active shooter incidents.

With the exception of the entrance and office location at Amherst High School, all of the entrance configurations of the ACPS school buildings can be equipped straightforwardly with simple, uncomplicated entrance vestibules. At the present time, the school offices in these other locations already have a line of vision to the entrance corridor, where bullet-proof glass walls and electronically locked doors can be installed in a straightforward manner (**Exhibit 5.26**). Door hardware, improved doors, cameras, and safety bollards to prevent ramming by vehicles, are all part of a dynamic security arrangement.

Exhibit 5.26
Entrance lobby at Central Elementary School



Source: Prismatic, April 2014.

Visitor management and access control are primary factors to ensuring the safety of any school.¹⁰ Access control comes in many forms, including physical, electronic control, and fundamental surveillance. Consequently, cameras, secure doors and locksets, and vehicle blocking bollards, all contribute to greater building security.

Physical access control includes locked doors posted with signage. They not only define, but identify who should be using these entrances, such as students, teachers, and visitors. The signage should give clear direction to 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. Schools with multiple buildings must also have a single secured visitor vestibule, while the remainder of the campus must be securely fenced and secondary entrances camera-monitored and accessible only by persons who are badged and have an access key.

¹⁰ (2013, October). *Campus Safety Magazine*.

RECOMMENDATION 5.15

Implement the security package detailed in the CIP of November 13, 2014.

The security package was presented as the number one priority in the CIP. It is scheduled for implementation from 2014 through 2017. The consulting team agrees with both the prioritization and the scheduling of implementation and recommends implementation as stated in the CIP. While many other capital improvements needs co-exist at ACPS, security matters should be given equal attention.

FISCAL IMPACT

ACPS estimates the cost of the security package as \$2,134,644 and has already included these costs in its CIP. ACPS should investigate, and take advantage of, any special grants that may be available from the United States government, or from the Virginia Commonwealth.¹¹ The U.S. Department of Education offers school climate transformation grants to local educational agencies, and the U.S. Department of Justice offers community-oriented policing services grants.¹²

¹¹ <http://www2.ed.gov/programs/schoolclimatelea/index.html>

¹² <http://www.justice.gov/business/>

Financial Management

This chapter reviews the financial management of Amherst County Public Schools (ACPS) in five sections:

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

Sound school division financial management involves the effective use of limited resources to support student achievement. School divisions must maximize their resources available from all sources and must account for their use of these resources accurately to local taxpayers and state and federal governments. The planning and budgeting process must support division goals. Proper accounting must reduce the risk of lost assets and ensure their appropriate use. The division must provide its board and administrators with timely, accurate, and useful reports concerning its financial condition. Effective financial management ensures that internal controls are in place and operating as intended, technology is maximized to increase productivity, and that the reports are prepared timely and accurately.

The education of over 4,000 students is the major responsibility of ACPS; however, this cannot be accomplished without the financial resources entrusted to the division by the citizens of the county and the state and by the federal government. To ensure financial resources are protected and spent appropriately, a division needs a strategic plan, written policies and procedures, an accounting information system, revenue and spending forecasts and budgets, systems of internal control, and a support system that enhances the ability of school administrators and teachers to carry out their responsibilities.

ACPS is one of 132 public school divisions in the Commonwealth of Virginia and is a component unit of Amherst County. Amherst County performs cash management and investments activities for the division and assists with purchasing when requested by the division. 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 Amherst 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.

Exhibit 6.1 compares ACPS sources of revenue as a percent of total revenues to peer and neighbor divisions for 2012-13 revenues. Amherst received a higher percent of revenues from sales and use tax than the average of peer and neighbor divisions, but a lower percent from federal and state funds. ACPS's 44.2 percent of funds from federal funds was lower than the peer division average but higher than the neighbor division average. As a percent of total revenues, the division received less than both the peer and neighbor averages. While the percent provided from local funds was higher than the peer average, it was less than the neighbor average. The percent of local funds received by the division was third highest of the peer divisions, with only Dinwiddie and Wythe receiving a higher percentage. Nelson County received the highest percent of local funds with 56.4 percent.

Exhibit 6.1
Sources of revenue
ACPS, peer, and neighbor divisions
2012-13

School Division	Sales and Use Tax	Federal Funds	State Funds	Local Funds	Other
Caroline County	10.8%	48.5%	10.8%	28.1%	1.8%
Carroll County	9.5%	47.0%	12.5%	25.5%	5.6%
Dinwiddie County	8.9%	44.0%	6.5%	39.1%	1.4%
Mecklenburg County	9.7%	46.6%	11.2%	27.1%	5.4%
Pulaski County	9.9%	47.0%	10.8%	27.4%	5.0%
Russell County	9.2%	53.5%	13.0%	20.9%	3.4%
Smyth County	9.2%	53.0%	11.5%	22.1%	4.2%
Wythe County	9.3%	43.8%	8.7%	34.6%	3.6%
Peer Division Average	9.6%	47.9%	10.6%	28.1%	3.8%
Amherst County	10.1%	44.2%	8.9%	32.5%	4.2%
Appomattox County	11.0%	53.4%	9.5%	22.8%	3.3%
Bedford County	10.1%	30.7%	8.3%	42.9%	8.1%
Campbell County	10.5%	47.5%	8.5%	31.0%	2.5%
Lynchburg City	9.2%	38.2%	12.2%	37.5%	2.9%
Nelson County	8.1%	24.6%	7.0%	56.4%	3.9%
Neighbor Division Average	9.8%	38.9%	9.1%	38.1%	4.1%

Source: 2012-13 VDOE Superintendent's Annual Report.

Disbursements for divisions are reported by program to the Virginia Department of Education. **Exhibit 6.2** shows a comparison of ACPS's disbursements to peer and neighbor averages by program on a per-pupil cost and a percent of total. ACPS's:

- Total disbursements of \$10,891 were higher than both peer and neighbor averages. Based on a pupil count of 4,230 for 2012-13, ACPS's cost per pupil as compared to peer and neighbor averages resulted in additional cost of \$1,950,030 compared to the peer average and \$1,078,650 compared to neighbor average.
- Administration costs of \$303 per pupil were higher compared to both peer and neighbor averages.
- Instructional costs of \$7,492 per pupil were higher than both peer and neighbor averages.
- Pupil transportation costs of \$633 per pupil were lower than both the peer and neighbor averages.
- Operations and maintenance costs of \$903 per pupil were lower than both the peer and neighbor averages.
- School child nutrition costs of \$500 per pupil cost were higher than both the peer and neighbor averages.
- Adult education costs of \$186 per pupil were considerably higher than the peer and neighbor averages.

Exhibit 6.2
Comparison disbursements for ACPS, peer, and neighbor divisions by program
2012-13

Program	Per Pupil Cost			Percent of Total		
	ACPS	Peer Average	Neighbor Average	ACPS	Peer Average	Neighbor Average
Administration	\$ 303	\$ 219	\$ 277	2.8%	2.1%	2.6%
Instruction	\$ 7,492	\$ 7,061	\$ 7,203	68.8%	67.7%	67.7%
Attendance and Health Services	\$ 226	\$ 143	\$ 176	2.1%	1.4%	1.7%
Pupil Transportation Services	\$ 633	\$ 656	\$ 686	5.8%	6.3%	6.5%
Operations and Maintenance	\$ 903	\$ 958	\$ 1,044	8.3%	9.2%	9.8%
School Child Nutrition	\$ 500	\$ 490	\$ 446	4.6%	4.7%	4.2%
Summer School	\$ 15	\$ 22	\$ 32	0.1%	0.2%	0.3%
Adult Education	\$ 186	\$ 32	\$ 32	1.7%	0.3%	0.3%
Pre-Kindergarten	\$ 98	\$ 126	\$ 138	0.9%	1.2%	1.3%
Other Educational Programs	\$ 0	\$ 13	\$ 56	0.0%	0.1%	0.5%
Facilities	\$ 71	\$ 270	\$ 259	0.7%	2.6%	2.4%
Debt Services and Transfers	\$ 464	\$ 439	\$ 287	4.3%	4.2%	2.7%
Total Disbursements	\$ 10,891	\$ 10,430	\$ 10,636	100.0%	100.0%	100.0%

Source: 2013 Superintendent's Annual Report for Virginia.

Although the student population decreased between 2011-12 and 2012-13, the division's total disbursements increased by \$35,130 and the per pupil cost increased by \$403. **Exhibit 6.3** shows that per pupil cost for administration and instruction increased by \$32 and \$265 respectively. Per pupil costs for operations and maintenance and school child nutrition also increased while cost of all other programs decreased.

Exhibit 6.3
ACPS disbursements per pupil by category
2010-11 and 2012-13

Program	2010-11		2012-13		Changes 2010-11 to 2012-13	
	Amount	Per Pupil	Amount	Per Pupil	Amount	Per Pupil
Administration	\$ 1,188,866	\$ 271	\$ 1,280,201	\$ 303	\$ 91,335	\$ 32
Instruction	\$ 31,723,818	\$ 7,226	\$ 31,695,918	\$ 7,492	\$ (27,899)	\$ 265
Attendance and Health Services	\$ 967,154	\$ 220	\$ 956,945	\$ 226	\$ (10,209)	\$ 6
Pupil Transportation Services	\$ 2,766,688	\$ 630	\$ 2,680,004	\$ 633	\$ (86,683)	\$ 3
Operations and Maintenance	\$ 3,836,536	\$ 874	\$ 3,820,361	\$ 903	\$ (16,175)	\$ 29
School Child Nutrition	\$ 1,936,323	\$ 441	\$ 2,115,072	\$ 500	\$ 178,749	\$ 59
Summer School	\$ 81,505	\$ 19	\$ 64,471	\$ 15	\$ (17,034)	\$ (3)
Adult Education	\$ 666,550	\$ 152	\$ 785,194	\$ 186	\$ 118,644	\$ 34
Pre-Kindergarten	\$ 446,687	\$ 102	\$ 413,553	\$ 98	\$ (33,133)	\$ (4)
Facilities	\$ 0	\$ 0	\$ 302,138	\$ 71	\$ 302,138	\$ 71
Debt Services and Transfers	\$ 2,428,049	\$ 553	\$ 1,963,446	\$ 464	\$ (464,602)	\$ (89)
Total Disbursements	\$ 46,042,174	\$ 10,488	\$ 46,077,305	\$ 10,891	\$ 35,130	\$ 403

Source: 2013 Superintendent's Annual Report for Virginia.

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 6.4 shows a comparison of the local composite indexes for Amherst peer and neighbor divisions for 2012-14 and 2014-16. Amherst's local composite index increased slightly while all other peer divisions decreased except for Dinwiddie County, which increased by 1.1 percent. While ACPS's index increased by 0.1 percent, the peer division average decreased by 11.3 percent and the neighbor average decreased by 5.9 percent.

Exhibit 6.4
ACPS and peer division comparison of composite indexes
2012-14 and 2014-16

School Division	2012-14	2014-16	Percent Increase or (Decrease)
Caroline County	.3306	.3272	(1.0%)
Carroll County	.2831	.2695	(4.8%)
Dinwiddie County	.2850	.2881	1.1%
Mecklenburg County	.3650	.3608	(1.2%)
Pulaski County	.4414	.3111	(29.5%)
Russell County	.3052	.2485	(18.6%)
Smyth County	.3171	.2251	(29.0%)
Wythe County	.3204	.3182	(0.7%)
Peer Division Average	.3310	.2936	(11.3%)
Amherst County	.3075	.3079	0.1%
Appomattox County	.2945	.3079	4.6%
Bedford County	.4268	.3132	(26.6%)
Campbell County	.2655	.2759	3.9%
Lynchburg City	.3679	.3679	0.0%
Nelson County	.5928	.5686	(4.1%)
Neighbor Division Average	.3895	.3667	(5.9%)

Source: Virginia Department of Education Website, 2014.

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

- The ACPS CFO performs the majority of the finance functions of the division without any support staff and is well respected by all levels of division staff and county administrators.
- The division effectively maintains an up-to-date staffing list of authorized positions.
- The division is working with the county to require mandatory direct deposit of employee pay, which will increase efficiency and reduce processing cost.

- ACPS prepares a detailed budget document and places it on the division's website for easy access and transparency.
- The division uses the services of the county's purchasing agent and consolidates purchasing needs to realize cost saving.

The consulting team also made 15 recommendations in this chapter:

- Transfer the payroll and benefits coordinator from human resources to the finance department to improve internal controls and oversight of the payroll function.
- Add one financial position to assist the CFO to enable improvements to internal controls and allow the CFO to complete required financial duties within reasonable working hours.
- Develop a comprehensive standard form to document employee compensation and other changes to employee data including new hires and changes to existing employees.
- Review year-end balances remaining in schools' allocated funds and return excess balances to the school board.
- Improve the division's budget document by adding additional information and the use of graphs and charts.
- Improve the division's budget calendar by adding more detail and identifying the responsible party for the activity.
- Develop a procedures manual for activity funds and train staff on the standard approved processes for managing activity funds.
- Identify all critical financial functions and document procedures in a comprehensive procedures manual.
- Require schools to submit monthly activity fund reports that include bank reconciliations to the finance office in a timely manner and develop guidelines for finance staff to review reports for internal control purposes.
- 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 performing finance-related duties and cross-train them in each other's duties.
- Develop a process to verify the accuracy of school division fixed assets shown in the county's comprehensive annual report.
- Develop a listing of fixed asset items valued less than \$5,000 that should be controlled, a process to manage them, and establish a set of fixed asset policies to provide the division with better oversight of its investment in fixed assets.
- Document purchasing procedures for division staff and distribute to all employees with purchasing duties.
- Bid for child nutrition maintenance services on an annual basis and develop a process to better monitor and validate invoices.

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		2014-15	2015-16	2016-17	2017-18	2018-19	Total
6.2	Add one financial position to assist the CFO.	(\$40,600)	(\$40,600)	(\$40,600)	(\$40,600)	(\$40,600)	(\$203,000)
6.7	Return unexpended allocated funds to the school board.	\$157,955	\$0	\$0	\$0	\$0	\$157,955
6.17	Develop fixed asset policies, track fixed assets, and hire staff to handle assets.	(\$4,500)	\$0	\$0	\$0	\$0	(\$4,500)

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. Payroll is a major part of any division since it normally represents the bulk of the expenses.

Exhibit 6.5 presents the organization chart for the finance department. The division has only one employee assigned to its formal finance functions. The chief financial officer (CFO) is responsible for the division's finance functions and performs them without assistance of any assigned staff, which is extremely unusual for a division the size of Amherst. The position was titled manager of business/finance until November 2013, when the superintendent renamed the position CFO so the title would reflect the responsibilities assigned to the position and the stature of the position in the division's organizational structure. The CFO has been employed by the division for 25 years and has had the responsibility for budget functions since 1995. There is no succession plan in place for the position.

Payroll functions are performed by the payroll and benefits coordinator located in the human resources department. Accounts payable for child nutrition program invoices are processed by the administrative assistant in the child nutrition department. Although the payroll and benefits coordinator and child nutrition administrative assistant perform finance processes, they do not report to the CFO.

School divisions require accurate and detailed payroll accounting to ensure that employees are paid for their services correctly and on time. Payroll is one of the division's most visible

responsibilities. Accurate payroll data are vital to the division’s budgeting process as payroll is generally the largest single expenditure category. If the division does not have access to accurate historical payroll data, it becomes difficult to project future payroll expenditures with any degree of certainty. Salaries and benefits account for 70.3 percent of the total expenditures from division funds (**Exhibit 6.6**).

Exhibit 6.5
ACPS finance organization
2013-14



Source: Created by Prismatic, April 2014.

Exhibit 6.6
Salary and benefit expense as percent of total expenditures
2013-14

Object of Expense	2013-14 Budget
Salaries	\$ 25,513,442
Benefits	\$ 7,690,416
Total Salaries and Benefits	\$ 33,203,858
Total School Operating Budget	\$ 47,203,155
Percent of Total Salaries and Benefits	70.3%

Source: ACPS 2013-14 operating budget.

FINDING 6.1

The division’s primary accounting and budgeting functions are performed exceptionally well with only one employee. Except for payroll and child nutrition accounts payable, all financial functions including budget are performed solely by the CFO without assistance from any support staff. The CFO is a well-respected member of the division’s senior staff and has developed an exceptionally good working relationship with not only division staff at all levels but also Amherst County officials. Interviews indicated that Amherst County officials respect the division’s CFO and trust the accuracy of information and data presented to the county.

COMMENDATION

The ACPS CFO performs the majority of the finance functions of the division without any support staff and is well respected by all levels of division staff and county administrators.

FINDING 6.2

Staffing to complete finance-related functions is insufficient. Although the division is commended for being able to perform extensive financial processes with just one employee assigned formal finance duties, the individual is extremely overworked and the division is sacrificing internal controls by not having other staff to separate duties.

With the amount and number of functions assigned to the CFO, the position does not have time to complete important finance-related functions including oversight of the payroll process, closer monitoring of activity funds, developing standard operating procedures that ensure internal control processes are performed, and oversight of child nutrition financial processes.

In addition, the division does not have anyone who could complete the critical functions performed by the CFO if she was unexpectedly away from work for an extended period. The management letter from the outside auditor for 2012-13 also identified the need for additional staff. The management letter stated, in part:

Due to a lack of segregation of duties, the School Accounting Manager processes accounts payable and receipts, prepares reimbursements requests, and processes payroll, if necessary. There is no cross-training and the number of tasks being performed routinely requires working hours well beyond normal business hours. To mitigate the risk of segregation of duties, several procedures are employed to create checks and balances through other personnel, including accounts payable and payroll processing at the County level by the County's accounting department, checks being printed by the County's Information Technology department, etc. However, the greatest risk is related to turnover or an extended leave of absence due to illness or other unforeseen circumstance. The County Accounting Manager is in a similar situation putting the County at risk in the event of turnover or an extended leave of absence due to illness or other unforeseen circumstances. The County and school board should implement cross training and consider hiring at least two additional staff to alleviate this risk and eliminate some of the burden currently on these two individuals.

RECOMMENDATION 6.2

Add one financial position to assist the CFO to enable improvements to internal controls and allow the CFO to complete required financial duties within reasonable working hours.

The superintendent should request funding for this additional position. Once filled, the first responsibilities of the new positions should be documenting processes for each finance function.

FISCAL IMPACT

It is estimated to attract and hire an individual with the experience and capabilities to perform the necessary duties would require a salary of around \$35,000 a year. The total annual cost including the salary of \$35,000 plus benefits of \$5,600 would be \$40,600.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Add one financial position to assist the CFO.	(\$40,600)	(\$40,600)	(\$40,600)	(\$40,600)	(\$40,600)

FINDING 6.3

Authorized staffing is effectively monitored and controlled by division staff.

Authorized positions are managed using Excel spreadsheets where a listing of authorized positions is maintained for each organizational unit. Information for each position is maintained that shows if the position is vacant or filled. If filled, the listing shows the employee’s name, hire date, contract number, where assigned, pay grade and step, hourly wage, degree or certification, and annual salary. Maintaining an up-to-date listing of authorized positions helps ensure that only approved positions are filled. The listings show all vacant positions and provide easy reference to identify what positions need to be filled. The listings are also beneficial when determining the impact of budgeted funds for positions that are not filled for an extended period.

COMMENDATION

The division effectively maintains an up-to-date staffing list of authorized positions.

FINDING 6.4

Although there is no indication of any improprieties or errors, internal controls over payroll processes could be improved. The employee responsible for processing the division’s monthly regular payroll is located in the human resources department. Allowing payroll functions to be performed in the same department as human resources functions creates a significant internal control weakness. The assistant superintendent for human resources to whom the employee reports is also responsible for approving employee pay data and changes to employee compensation. Having the employee who processes payrolls reporting to the supervisor who also approves employee compensation is considered a weakness in internal controls.

Separation of duties is a key component of an effective internal control system. Segregation of duties and access to human resources and payroll systems are especially critical due to the sensitive nature of information and the ability to make unauthorized entries into the systems. Providing the opportunity for employees to make unauthorized changes to employee records places the division in a potentially serious liability position and severely affects the integrity of the security of employee personnel and payroll data.

Changes to payroll data should not be made without written authorization from the human resources department. A supervisor independent of the payroll function should review the payroll data each pay period and indicate approval with a signature and date.

Internal controls are extremely important in human resources and payroll departments. Separation of the payroll and human resources functions is critical to help ensure that changes to employee payrolls are appropriately reviewed and approved.



RECOMMENDATION 6.4

Transfer the payroll and benefits coordinator from human resources to the finance department to improve internal controls and oversight of the payroll function.

Transferring the human resources specialist to the finance department will provide a separation of human resources and payroll functions. Since most of the functions performed by the human resources specialist duties are payroll, they should be performed by staff in the finance department which reports to a different director.

The human resources department should be responsible for verifying the accuracy and propriety of all changes made to payroll data to include changes to pay rates, salary table payroll deductions and adding new employees. The payroll coordinator should recheck this same data before entering the information into the payroll system.

FISCAL IMPACT

Preparing the paperwork to transfer the payroll and benefits coordinator will take minimal time by finance and human resources staff. There is sufficient office space in the area of the CFO to accommodate another employee.

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 6.5

The division does not have a mandatory direct deposit of payroll checks, but the division and county have plans to phase in a mandatory direct deposit program beginning in July 2014 and completed by the end of September 2014. 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. Additional efficiencies will be realized when all employees are required to participate.

COMMENDATION

The division is working with the county to require mandatory direct deposit of employee pay, which will increase efficiency and reduce processing cost.

FINDING 6.6

Different forms are used to process changes to employee compensation and other employee data. Except for a form used by the transportation department, the forms do not have a place for approval signatures or dates.

Three different forms are used to process changes to employee personnel and payroll data, primarily for new hires. When changes occur during the year, the consulting team was told that those are mostly handled using memos. Titles of the three forms and data contained on each are:

1. *Professional – New Hire Employment Information* has blocks for school, grade/step, hours, assignment, hourly rates/salary, start date, degree/s earned, college or university, Virginia teaching license (yes/no), expiration date, out-of-state teaching license (yes/no), expiration date, number of years teaching experience, highly qualified status, experience credit status, and an area for notes.
2. *New Hire Employment Information* has blocks for name, school, assignment, grade/step, hourly rate, salary, no. hours, state date, and other.
3. *Amherst County Public Schools – Transportation Department* is a memo form with places for date, subject (employment or recommend change), position, name, SSN, address, phone numbers, years exp. (step), daily hours to work, daily rate, state/effective date, notes/comments, and an area to check if certain items are attached such as application, W-4, VA-4, reference forms, applicant waiver forms, policy consent, release form, I-9, or i-9 verification documents. The form also has lines for signatures of who submitted and approved.

Using a standard form to document employee data makes processing more efficient and helps ensure that all needed data are captured in a consistent manner. Approval signatures are needed for all employee changes to help ensure that all changes have been reviewed and approved by the appropriate management staff before changes are made to employee records.

RECOMMENDATION 6.6

Develop a comprehensive standard form to document employee compensation and other changes to employee data including new hires and changes to existing employees.

A standard form will help ensure that all needed data pertaining to employee personnel and payroll data are documented in a standard and uniform manner. The form should also contain signature and data blocks to indicate who signed and when the change was initialed, and blocks to document approvals and dates approved.

FISCAL IMPACT

The assistant superintendent for human resources and the CFO will need to spend no more than four hours each to design a comprehensive form and instructions on proper use.

FINDING 6.7

Year-end balances remaining in funds allocated to schools are not returned to division funds in accordance with division policy. Board Policy DGB – funds for



instructional materials and office supplies – indicates that at the close of the fiscal year, all funds remaining in the accounts shall be returned to the school board. Reports show that a number of school accounts had balances in these accounts at June 30, 2013.

Allocations are made to schools each year to fund a variety of costs. In 2013-14, \$267,502 was transferred to the 10 division schools. **Exhibit 6.7** shows the funds that were transferred to the schools. Allocations to the schools come from the division’s general fund and are deposited into schools’ bank accounts. Allocations to the schools include funds to cover costs for the following:

- science materials;
- media materials;
- vocational materials;
- music materials;
- physical education materials;
- athletics;
- guidance;
- travel; and
- synergistics.

Exhibit 6.7
School allocations, 2013-14

School	Allocations
Amelon Elementary	\$ 24,404
Amherst Elementary	\$ 17,649
Central Elementary	\$ 13,863
Elon Elementary	\$ 15,535
Madison Heights Elementary	\$ 24,084
Pleasant View Elementary	\$ 7,154
Temperance Elementary	\$ 7,493
Amherst Middle	\$ 24,942
Monelion Middle	\$ 37,070
Amherst High School	\$ 95,308
Total	\$ 267,502

Source: ACPS Finance, December 2013.

Interviews with principals and bookkeepers indicated that it was their understanding that funds remaining in their instructional funds at the end of a fiscal year could be carried forward to the next year. **Exhibit 6.8** shows the balances that remained in the 10 schools allocated funds at the end of each year for the past three years. The total amount of the funds in the 10 school accounts at June 30, 2013 was \$157,955. The overall total balance has increased each year, although there have been substantial fluctuations among the balances of the individual schools.

Exhibit 6.8
School instructional fund balances, June 2013

School	Balances		
	June 30, 2011	June 30, 2012	June 30, 2013
Amelon Elementary	\$ 34,798	\$ 45,241	\$ 20,740
Amherst Elementary	\$ 9,094	\$ 16,094	\$ 15,129
Central Elementary	\$ 7,787	\$ 6,353	\$ 9,072
Elon Elementary	\$ 7,223	\$ 22,563	\$ 9,371
Madison Heights Elementary	\$ 4,591	\$ 5,442	\$ 23,161
Pleasant View Elementary	\$ 3,637	\$ 7,600	\$ 5,503
Temperance Elementary	\$ 13,269	\$ 30,701	\$ 6,143
Amherst Middle	\$ 4,126	\$ 6,187	\$ 7,568
Monelion Middle	\$ 7,532	\$ 4,582	\$ 16,017
Amherst High School	\$ 5,004	\$ 6,560	\$ 45,251
Total	\$ 97,061	\$ 151,323	\$ 157,955

Source: ACPS Activity Funds Reports, July 2013.

There is not a procedure in place to transfer unexpended balances in the allocated funds at the end of the year back to the school board. Allocating funds to schools is an efficient process which allows the schools to expend the funds for normally low-cost items without having to process purchase orders and payments through the central office. However, the funds should be used in the time frame allowed, and if not needed or used, should be returned to the division's operating fund as per board policy.

It should be noted that, in the last few years of severely restricted funding, these funds have been retained by the schools to offset needs not addressed in the division budget. However, policy does not allow for the schools to transfer the unexpended funds to the next year. If the board believes carrying balance forward is justified, policies should be revised to develop a formal process for such transfers.

RECOMMENDATION 6.7

Review year-end balances remaining in schools' allocated funds and return excess balances to the school board.

A procedure to review funds allocated to schools for materials and office supplies will identify balances that should be transferred back to the school board in compliance with board policy. The CFO should provide clarification to schools pertaining to the acceptable amount of funds that can remain in their allocated funds at the end of the year, and correlate compliance with board policy.

FISCAL IMPACT

The estimated fiscal impact of this recommendation is based on a one-time return of the cash balances in school allocated funds on hand at June 30, 2013, as per school board policy. The fiscal impact in future years will be dependent on the amount, if any, of balances remaining in the accounts at the end of the years.



Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Return unexpended allocated funds to the school board.	\$157,955	\$0	\$0	\$0	\$0

FINDING 6.8

Although all schools use the same Manatee software for managing activity funds and preparing reports, there are no written guidelines as to what reports should be produced and what their distribution should be. There is not a requirement for schools to send completed bank reconciliations to the central office and only one school indicated that they included one with their monthly reports.

Schools send an activity fund report to the CFO each month that provides a summary of transactions for each account. After encountering problems with the management of activity funds, other divisions have found that a useful internal control feature is for schools to submit a copy of the monthly reconciliation of their bank account to the division’s finance office. By reviewing and ensuring that bank accounts are reconciled timely and appropriately, the finance office can help to timely identify situations where an account is not being appropriately managed.

RECOMMENDATION 6.8

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

Requiring timely monthly reports and approvals of bank reconciliations in a timely manner by finance staff will strengthen internal controls. The review of the reports will also help to timely identify any mismanagement of funds.

FISCAL IMPACT

It is estimated that it will take the CFO no more than one hour each month to review reports and approve bank reconciliations.

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. School administrators, department heads, teachers, and community members should be involved in the budgeting process, as well as the central administration and school board.

Of utmost importance during the budgeting process is the requirement to effectively communicate the needs of the division and to publicly recognize the decision-making



process in a manner that is easily understood by all constituents. The process must be transparent and consider all needs in a fair and equitable manner.

An organization's financial planning and monitoring system, along with an effective budget development and management process, establishes the foundation for all financial management operations. Effective budget processes typically include:

- ◆ input from all schools and departments;
- ◆ appropriate guidance from administrators;
- ◆ desired goals, objectives, and outcomes from strategic planning processes; and
- ◆ detailed management and reporting functions throughout the budget cycle.

FINDING 6.9

The division's budget document is comprehensive and includes a substantial amount of useful information. To help make the division's use of funds transparent to the public, the budget is published on the division's website. Data in the budget document include:

- ◆ superintendent's opening presentation,
- ◆ list of school board members and county board of supervisor members,
- ◆ the division's mission and vision,
- ◆ table of contents,
- ◆ executive summary,
- ◆ budget calendar,
- ◆ average daily membership 1971-72 to 2013-14 and 2014-15 projected student enrollment by school and grade,
- ◆ itemized requested increases from previous year,
- ◆ revenue projections; and
- ◆ 16 individual sections that present actual expenditures for 2011-12 and 2012-13, budgeted amounts for 2013-14, and the requested amounts for 2014-15. Some sections include the number of positions by type for the same four years.

Presenting detailed budget data provides division and county decision-making with information that helps them to make informed decisions. It further provides the public with information that helps them understand where funds for division education are expended. Presenting the budget on the division's website provides all individuals interested in obtaining information on the division's budget with an easy accessible location to obtain the data.

COMMENDATION

ACPS prepares a detailed budget document and places it on the division's website for easy access and transparency.

FINDING 6.10

Although the division's budget document includes a substantial amount of information and is included on the division's website, it could be improved. The document primarily includes numbers and could be made more informative with additional data and an explanation of what the numbers mean.

A school division's budget is most effective when it is useful to both division staff and the community-at-large in understanding the division's inner workings. A budget document has three major purposes: a communications device, a policy document, and a financial plan. School divisions have an opportunity to 'tell their story' when their budgets communicate what is behind and beyond the numbers. Improvements to the budget document could be made by including:

- per pupil cost and comparison to peer and neighboring divisions;
- charts and graphs in color when appropriate;
- schedules that show positions for each department for the past five or six years;
- more narrative explanations for increases such as a health insurance rate increase. For example: the employer-paid portion of the state insurance rate increased from \$x,xxx to \$x,xxx annually, which represents a x.x% increase. Funds are needed to provide the state mandated increase for all full-time positions. Salaries & Benefits \$xx,xxxx;
- key statistics such as five or six year trends in the number of LEP students, number of economically disadvantaged students, number of students with special needs, percent of funds, and number of buses;
- student enrollments with growth projections (beyond the one year shown);
- division's capital improvement needs that show needs and planned projects for each school;
- goals, objectives, and accomplishments by function and/or departments; and
- academic achievement statistics for five or six years.

The Association of School Business Officials International (ASBO) offers a review and certification service for local school division budgets and provides numerous resources to assist in budget development. The ASBO Meritorious Budget Awards Program promotes and recognizes excellence in school budget presentation and enhances the school business officials' skills in developing, analyzing, and presenting a school system budget. The Meritorious Budget Awards Program:

- provides clear budget presentation guidelines;
- defines up-to-date budget practices;
- encourages both short- and long-range budget goals;
- promotes sound fiscal management practices;
- promotes effective use of educational resources;
- facilitates professional growth and development for the budget staff; and
- helps build solid development, analytical, and presentation budget skills.

RECOMMENDATION 6.10

Improve the division's budget document by adding additional information and with the use of graphs and charts.

Adding charts and graphs will help readers to more easily understand the relationship between a variety of numerical values. More narrative and additional data will enable readers to better understand what the numbers mean. The CFO should use ASBO resources to help in improving the budget document.

FISCAL IMPACT

The recommendation can be implemented by the CFO. Approximately 40 hours will need to be spent on each budget cycle to make improvements to the budget document.

FINDING 6.11

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 except for the discussion of internal budgets with all budget managers on January 13, 14 and 15, 2014 there are no dates when staff is to be involved (**Exhibit 6.9**).

Exhibit 6.9
ACPS budget calendar to reflect 2014-15 budget discussions

11/14/13	Regular School Board Meeting – 6:00 p.m. Introduction of Budget calendar
11/25/13	Reception with Area Legislators – 4:00 p.m. School Administration Office
12/20/13	Governor will present Budget
1/8/14	General Assembly Convenes
1/13, 1/14, 1/15	Discussion of Internal Budgets with all Budget Managers
1/23/14	Regular School Board Meeting – 5:00 p.m. RESCHEDULED Public Hearing on the 2014-15 School Operational Budget 5:30 p.m. RESCHEDULED
1/30/14	Regular School Board Meeting – 6:00 p.m. Original (1/23/13)
2/6/14	Public Hearing on the 2014-15 School Operational Budget 6:00 p.m. (Original 1/23/13)
2/13/14	Regular School Board Meeting – 6:00 p.m.
2/19/13	Presentation of the Superintendent’s Proposed FY15 School Operational Budget and Amherst County School Board for Ore-Budget Discussions 6:00 p.m.
3/6/14	Budget Work Session Retreat – 8:30 a.m. School Administration Office
3/8/14	General Assembly Adjourns
3/13/14	Regular School Board Meeting 6:00 p. m.
3/20/14	Budget Work Session – School Administration Office 6:00p.m.
3/27/14	Regular School Board Meeting 5:00 p.m.

Source: ACPS Website, January 2014.

The calendar lacks information showing actions required by division staff and when they 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 in the budget development process including the public know when certain actions are scheduled. Staff indicated in interviews that division management considerably increased input for the 2014-15 budget from not only school and department staff, but also from the public and outside organizations including parent-teacher organizations (PTOs); however those events are not shown on the calendar.

Some divisions have found it useful and beneficial to complete and distribute a detailed budget calendar using a format similar to the one shown in **Exhibit 6.10**. The document for some divisions’ budget development calendars contains numerous steps, sometimes 30 or more.

Exhibit 6.10
Sample steps for budget planning calendar

Date/Time	Purpose	Participants	Location
XX-XX-XXXX X:XX	Presentation and approval of proposed budget development calendar	Superintendent	Board Room
XX-XX-XXXX X:XX	Distribution of budget request documents to principals and department heads	CFO	Central Office
XX-XX-XXXX X:XX	Budget meetings completed with principals and department heads	Superintendent, Chief Financial Officer, Principals, and Department Heads	Central Office
XX-XX-XXXX X:XX	Advertise for public hearing scheduled for XX-XX-XXXX	Superintendent's secretary	Superintendent's office
XX-XX-XXXX X:XX	Meet with Parent Teacher Organizations	Superintendent and CFO	Board Room
XX-XX-XXXX X:XX	Budget workshop – discuss budget issues and receive public comment	Superintendent and CFO	Board Room
XX-XX-XXXX X:XX	Prepare preliminary budget document	CFO	Central Office
XX-XX-XXXX X:XX	Presentation of school board approved budget to Board of Supervisors	Superintendent	Board Room

Source: Prismatic Services, January 2014.

RECOMMENDATION 6.11

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

A clear and communicative budget calendar ensures transparency about the budget process. It also provides a regimented framework that guides that process, helping keep its executors on track.

FISCAL IMPACT

This recommendation can be completed by the superintendent and the CFO. It is estimated that it will take them a total of eight hours to expand the budget development calendar the first time. In subsequent years, only minor revisions will be needed.

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. Policies and procedures:

- ◆ 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 6.12

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 general fund allocations and student activity fees and fundraisers. Funds are deposited into the bank accounts and principals disburse these funds for needed items. All schools use the same automated financial system, which provides for the recording of revenues and disbursements by account title and provides a monthly report that shows the beginning balance for each account, monthly revenues and expenditures, and the ending balance.

A considerable amount of funds are received and disbursed by schools through the activity funds maintained in local bank accounts. During 2012-13, over \$1.4 million was disbursed through the local bank accounts. Amherst High School received \$780,998 and disbursed \$912,656 during the year. Over \$300,000 of the high school's receipts and disbursements pertain to the athletic program (revenues primarily from ticket sales). **Exhibit 6.11** shows the funds received and disbursed for each of the schools during 2012-13. This includes both the funds allocated to the schools by the central office and the monies received for student activities.

**Exhibit 6.11
Activity fund transactions, 2012-13**

School	Cash Balances June 30, 2012	Cash Receipts	Cash Disbursements	Cash Balances June 30, 2013
Amelon Elementary	\$ 34,962	\$ 55,565	\$ 58,693	\$ 31,834
Amherst Elementary	\$ 20,567	\$ 49,269	\$ 48,926	\$ 20,910
Amherst Middle	\$ 46,476	\$ 113,073	\$ 105,987	\$ 53,562
Amherst High	\$ 440,804	\$ 780,998	\$ 912,656	\$ 309,145
Central Elementary	\$ 16,217	\$ 56,704	\$ 50,203	\$ 22,719
Eton Elementary	\$ 15,151	\$ 51,857	\$ 52,627	\$ 14,381
Madison Heights Elementary	\$ 39,316	\$ 46,492	\$ 58,057	\$ 27,751
Monelison Middle	\$ 68,491	\$ 146,019	\$ 133,077	\$ 81,433
Pleasant View Elementary	\$ 9,642	\$ 19,683	\$ 17,000	\$ 12,325
Temperance Elementary	\$ 13,187	\$ 16,886	\$ 14,530	\$ 15,543
All Schools Total	\$ 704,813	\$ 1,336,547	\$ 1,451,757	\$ 589,602

Source: ACPS Activity Funds Audit, June 2013.

ACPS's activity funds are audited each year by an outside auditing firm contracted by the division. Audit reports did not indicate that there were any significant operational issues



associated with the management of activity funds, but did identify improvements which should be made.

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 about 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 are acceptable uses for the funds to be expended and how transactions are to be documented.

RECOMMENDATION 6.12

Develop a procedures manual for activity funds and train staff on the standard approved processes for managing these 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 in fulfilling their responsibilities. 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.

Due to the amount of funds involved, specific detailed guidelines and procedures should be developed for athletic ticket and concession sales. The procedures should include a review and approval for sales for each athletic event due to the significant amount of cash involved.

FISCAL IMPACT

The CFO should complete this recommendation with the assistance of the high school bookkeeper. It is estimated that it will take a total of 40 hours to develop the procedures manual.

FINDING 6.13

The division does not have procedures for the critical 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 the following:

- budget policies and procedures;
- payroll policies and procedures;
- accounts payable processing;
- activity fund policies and procedures;
- procedures governing approvals for checks and journal vouchers;
- procedures for travel reimbursements;
- grants management;
- textbook management;

- purchasing processes; and
- 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 website. The manual would identify roles, responsibilities, and controls to be observed, as well as areas for secondary review and approval.

RECOMMENDATION 6.13

Identify all critical financial functions 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 performs 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

It is estimated that it will take about 120 hours to develop a comprehensive procedures manual for financial functions. The recommended assistant position should be tasked with this project, overseen by the CFO.

FINDING 6.14

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 is 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 number 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 reimbursements 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 the amount of time required by business office staff to repeatedly explain these 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 the following:

- purchasing policy and procedures;
- vendor payments;

- student activity funds;
- payroll activities;
- leave reporting;
- fixed asset inventory processes;
- mail delivery;
- travel;
- workers' compensation; and
- other topics that impact division employees and administrative staff duties.

Processes related to financial activities are normally discussed at orientation for new employees, and discussed each year in work sessions prior to school beginning. Administrative staff 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 6.14

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 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 website and training sessions should be routinely offered where processes covered in the manual are discussed and questions answered. Manuals should be continually updated to be more useful and informative.

FISCAL IMPACT

This recommendation can be implemented by the CFO and assistant superintendent of human resources. They should develop their particular sections of the manual, and it is estimated that this will take no longer than 40 hours for each section.

FINDING 6.15

ACPS does not have written desk procedures that document the important daily financial duties performed by staff. In addition, staff is not cross-trained. Should the CFO, payroll and benefits coordinator, or the administrative assistant in the child nutrition department be absent from work for an extended period of time, it would be difficult for ACPS to complete its responsibilities.

For internal controls to operate effectively, all employees need a documented reference source detailing how they perform their assigned duties. An employee desk manual is in 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 that processes are performed correctly.

Without written directions, employees complete their duties based on verbal directions that were often received long ago, and have since likely become stale. Additionally, without a written reference, employees often improvise and develop their own ways to complete tasks. Processing transactions in an unapproved manner often leads to errors.

A desk procedures manual covers the activity steps in sufficient degree of detail that enables an individual who uses it for the first time to perform the steps with little, if any, additional instruction. It is important to list specific forms used, computer screens accessed, and 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. Many times, employees find the process is more understandable when a flowchart is included.

RECOMMENDATION 6.15

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

The CFO, payroll and benefits coordinator, and the administrative assistant in the child nutrition department should develop desk procedures for their duties. Once they have developed the desk procedures, the CFO should assist in determining 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.

FISCAL IMPACT

It is estimated that it will take the CFO approximately 80 hours to develop documentation for all the procedures that she performs and about 40 hours for the payroll and benefits coordinator and for the administrative assistant in the child nutrition department.

FINDING 6.16

The division does not have a process to verify the listing of fixed assets that the county reports in its comprehensive annual financial report. Fixed assets purchased from division funds that exceed \$5,000 are shown in the county's report as school division assets. In order to help ensure the data are correct, an annual fiscal inventory should be completed and corrections made to the listing as needed.

RECOMMENDATION 6.16

Develop a process to verify the accuracy of school division fixed assets shown in the county's comprehensive annual report.

Reviewing school division fixed asset data included in the county's comprehensive annual financial report will help ensure that accurate information is presented in the report. Verification of the detailed fixed asset data is used to provide the information for the report

and will also provide the division with more accurate information for its fixed assets costing \$5,000 and more.

FISCAL IMPACT

The consulting team estimates it will take the CFO about eight hours each year to verify the fixed asset data.

FINDING 6.17

Although the county maintains a listing of fixed assets owned by the division that exceed \$5,000 in value, the division does not maintain an inventory of items that are valued less than \$5,000. In addition, the division does not have sufficient policies to provide guidance in the management of its investment in fixed assets.

ACPS does not have a complete listing of fixed assets and does not complete comprehensive physical inventories to determine if fixed assets are still in the custody of the division. Except for policy DN – Disposal of Surplus Items – which provides guidance for the disposal of unneeded items, the division does not have any formal policies or guidelines to direct the management of its investment in fixed assets.

Fixed asset transactions are not identified and tracked during the year. ACPS does not have a complete listing of its fixed assets where additions and deletions are made as they occur, or a policy that directs a physical inventory to be conducted. Without a comprehensive listing and physical inventories, the division has no way to know if items are stolen or lost. This leaves the division without recourse if an employee loses costly equipment or alleges theft.

Policies normally address many issues pertaining to an entity's investment in fixed assets. Policies include guidelines for all fixed assets and regularly address the following:

- responsibility for accounting for the division's investment in fixed assets and the system that is used for the accounting;
- responsibility and accountability for the property and equipment owned;
- a requirement for annual physical inventories;
- capitalization thresholds for property, equipment, land, and infrastructure;
- depreciation methods, salvage value, and a schedule of estimated useful lives;
- capitalized improvements versus maintenance expenses;
- reporting junked, stolen or missing property, and what approvals are required to delete these items from the inventory;
- receiving donated property; and
- transferring assets between schools and departments.

To protect its investment in fixed assets, school divisions track their assets and have policies that provide direction on how the assets are to be managed. As items are acquired, they are immediately added to the listing and when the division disposes of an item through normal processes, it is taken off the listing. When an item cannot be found, the situation is reviewed and appropriate action taken. Normally, the school board is required to approve all deletions.

RECOMMENDATION 6.17

Develop a listing of fixed asset items valued less than \$5,000 that should be controlled, a process to manage them, and establish a set of fixed asset policies to provide the division with better oversight of its investment in fixed assets.

A system to track fixed assets and a set of fixed asset policies should help ensure that the division's investment in fixed assets is being managed as desired by the school board. The system should protect investments by assigning accountability and holding staff accountable for the proper care and protection of division assets.

FISCAL IMPACT

The consulting team recommends allocating \$3,000 for a one-time purchase of inventory software and barcode scanning equipment. It is also estimated that it will take the CFO approximately 40 hours to develop policies and about five hours a month to manage the system. There would also be a cost associated with hiring staff to locate, identify, and tag all equipment specified initially. This could be done on an hourly basis of approximately 10 hours for the elementary schools, 20 hours for the middle schools, and 40 hours for the high school at \$10 per hour, resulting in an additional expense of \$1,500.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Develop and adopt fixed asset policies, then track fixed assets acquired with division funds.	(\$3,000)	\$0	\$0	\$0	\$0
Hire staff to locate, identify, and tag assets.	(\$1,500)	\$0	\$0	\$0	\$0
TOTAL	(\$4,500)	\$0	\$0	\$0	\$0

E. Contracting Processes

An effective purchasing and contracting program provides schools and divisions with quality materials, supplies, services, and equipment, in a timely manner and at the lowest price. Purchasing policies and operating procedures help ensure a division complies with state and board purchasing requirements while performing purchasing functions in an efficient and timely manner. Policies should clearly establish purchasing authority, methods required for each type of purchase, provisions for conflicts of interest, and penalties for violating purchasing laws and policies. Purchasing procedures implement policies by documenting the steps taken by users and purchasing staff when goods or services are procured.

FINDING 6.18

The division uses the services of Amherst County's purchasing agent on a shared services basis and combines division-wide needs to take advantage of volume purchasing. There is no requirement for the county's purchasing agent to perform purchasing functions for the division and the division is not charged for the services performed. Before the end of each year the CFO obtains from each school the needs for the next year for instructional and other items, combines them into a consolidated purchase request, and uses the services of the county's purchasing agent to solicit competitive bids for the items. The services and expertise of the county's purchasing agent are also routinely used

for the purchase of higher valued items and contracted services. The use of the purchasing agent and the consolidation of purchasing needs enables the division to achieve cost effective purchases for the division.

COMMENDATION

The division uses the services of the county's purchasing agent and consolidates purchasing needs to realize cost saving.

FINDING 6.19

Although division schools and departments conduct purchasing functions in a similar manner, the processes for the division are not documented. The division does have a number of board policies pertaining to purchasing and has adopted the county's purchasing procedures manual.

Division policies do provide general guidance and the county's purchasing procedures manual provides procedures when purchasing is performed by the county's purchasing agent. However, procedures specific to purchasing activities conducted by the division have not been provided to staff.

RECOMMENDATION 6.19

Document purchasing procedures for division staff and distribute to all employees with purchasing duties.

The purchasing procedures should be included in the user manual discussed in a previous recommendation. Documented procedures are needed to help ensure that all staff with purchasing duties understands how to perform the functions in a manner that complies with division policies.

FISCAL IMPACT

This recommendation can be completed by the CFO. It is estimated that it will take the CFO approximately 24 hours to develop formal purchasing procedures to be included in the user manual. The county purchasing agent should be asked to review the procedures; this will take no more than four hours.

FINDING 6.20

There are concerns with sufficiently validating invoices for work performed by an external contractor for maintenance services on child nutrition equipment. The division has both in-house staff and a contract with an external provider to maintain its child nutrition equipment.

The external contractor had been performing services for the division for about five years through an arrangement that was not bid. The current contract was competitively bid using a request for proposals and was ultimately awarded to the same external contractor. Payments by the division for services performed by the contractor for the current and previous three years were:

• \$16,340 (through April 18, 2014);

• \$31,893;



• \$44,207; and

• \$16,879.

Interviews indicated that invoices for the services performed by the vendor are difficult to validate for accuracy. To a large extent the difficulty exists due to the nature and timing of the services. Many times, services have to be performed when division staff is not present. In addition, the consulting team found little reason for the maintenance contract to be bid on a three-year basis. The division may get better pricing by doing one-year contracts.

RECOMMENDATION 6.20

Bid for child nutrition maintenance services on an annual basis and develop a process to better monitor and validate invoices.

Bidding for the maintenance of cafeteria equipment annually should help get better pricing. Developing a process that will enable staff to better monitor and validate invoices will help ensure the division is receiving the services included on the invoices.

FISCAL IMPACT

This recommendation can be implemented by county and division staff. It should take the county's purchasing agent no more than four hours to solicit bids each year and the child nutrition staff no more than one hour a month to provide better review of the invoices.

Transportation

This chapter reviews the transportation operations of Amherst County Public Schools (ACPS) 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 ACPS transportation department provides route and extracurricular transportation for its students. The geographical size of Amherst County is 479 square miles of land and transportation currently serves 11 schools in the county. Approximately 96 percent of enrolled students are assigned to routes, with an average of 57 percent of ACPS students using school transportation daily. The transportation director is in his first year, and daily operations are conducted in-house by the transportation coordinator and dispatcher.

The school division has 59 contracted bus drivers and four contracted standby drivers who drive two morning and two afternoon routes each school day. Drivers are paid an average of \$12.78 per hour (contracted), and substitutes are paid \$10.73 per hour; contracts are based on the specified routes or transportation assignment. Drivers are contracted for daily shifts that last between four and seven hours.

The ACPS transportation department has:

- 71 buses for 251 daily bus/car routes:
 - 62 buses for regular transportation routes;
 - nine buses for special needs transportation;
- three activity buses;
- seven support vehicles for the 251 daily bus/car routes; and
- seven cars to provide additional special needs transportation.

Exhibit 7.1 shows a portion of the division’s fleet, parked at the transportation garage. It also shows the division’s refueling silo.

Exhibit 7.1 ACPS Buses



Source: Prismatic, April 2014.

The consulting team conducted an informal survey of ACPS staff during fieldwork interviews as part of this efficiency review. While its results are not a comprehensive picture of the transportation operations, they are valuable observations and should be considered for planning. The 20 interviewees included regular and substitute drivers, bus aides, and central office staff were asked questions about route assignments, field trips, contracts, and bus driver training. **Exhibit 7.2** provides the results.

The results indicate an overall satisfaction with ACPS transportation. The transportation department is providing adequate training for the employees, who exhibit good teamwork habits. In addition, employees have an understanding of policies and transportation's operational guidelines. A majority of staff agrees that drivers maintain and cultivate a safe work environment.

Exhibit 7.2
Informal staff survey regarding transportation (n=20)

Statement	Strongly Agree	Somewhat Agree	No Opinion	Somewhat Disagree	Strongly Disagree
Bus drivers are generally satisfied with their current route assignment.	10%	60%	30%	0%	0%
Field trips are given in a fair and equitable manner.	5%	70%	10%	10%	5%
Bus drivers maintain acceptable discipline on the buses.	30%	60%	5%	5%	0%
Buses are serviced and clean.	0%	90%	10%	0%	0%
Buses assignments and contracts are given in a fairly.	5%	50%	30%	5%	10%
Buses drivers receive proper training.	10%	90%	0%	0%	0%

Source: Prismatic, April 2014.

Exhibit 7.3 compares ACPS's route count and average bus occupancy for regular education students to that of peer and neighbor divisions. Amherst fell at the lower end of route counts when compared to its peers, which represent divisions similar in wealth and enrollment, with Carroll County, Pulaski County, and Russell County running fewer routes in 2012-13. The number of routes in ACPS and the peers has remained relatively unchanged over the years. However, while average bus occupancy has fallen for all peers except one (Pulaski County), it has increased by 5.4 percent in ACPS. Compared to its neighbor divisions in 2012-13, ACPS had fewer routes than all but one neighbor (Appomattox County) but also had one of the lower bus occupancies, better than only Nelson County.

Exhibit 7.3
Comparison of annual bus route count and occupancy, regular education

Division	2010-11		2011-12		2012-13		Percent Change	
	Rtes	Stu./Rte	Rtes	Stu./Rte	Rtes	Stu./Rte	Rtes	Stu./Rte
Caroline County	67	55	67	56	69	52	3.0%	(4.1%)
Carroll County	66	39	66	36	64	35	(3.0%)	(12.1%)
Dinwiddie County	104	39	99	20	91	35	(12.5%)	(10.6%)
Mecklenburg County	116	33	116	38	114	26	(1.7%)	(21.1%)
Pulaski County	57	60	57	62	54	68	(5.3%)	13.1%
Russell County	51	59	53	59	53	58	3.9%	(1.9%)
Smyth County	78	34	77	34	86	30	10.3%	(11.3%)
Wythe County	54	58	79	32	69	36	27.8%	(38.3%)
Peer Division Average	74	47	77	42	75	43	1.2%	(10.0%)
Amherst County	63	36	65	37	65	38	3.2%	5.4%
Appomattox County	37	37	37	38	36	41	(2.7%)	10.4%
Bedford County	168	45	154	51	154	51	(8.3%)	12.7%
Campbell County	110	42	110	44	108	42	(1.8%)	1.2%
Lynchburg City	100	63	89	68	89	68	(11.0%)	8.9%
Nelson County	66	28	67	27	66	27	0.0%	(3.9%)

Source: Virginia Department of Education, 2011-2013, Prismatic calculations.



Exhibit 7.4 provides an overview of how many students each school division transported during the three-year period. While most peers saw a decline in transported students over the three years, ACPS experienced an increase of 8.8 percent – from 2,244 riders in school years 2010-11 to 2,441 riders in 2012-13. Likewise, ACPS had a greater increase in regular students transported than any neighbor division.

Exhibit 7.4
Comparison of total regular education students transported

Division	2010-11	2011-12	2012-13	Percent Change
Caroline County	3,660	3,761	3,613	(1.3%)
Carroll County	2,595	2,368	2,211	(14.8%)
Dinwiddie County	4,072	3,174	3,187	(21.7%)
Mecklenburg County	3,877	4,359	3,006	(22.5%)
Pulaski County	3,430	3,553	3,676	7.2%
Russell County	3,005	3,109	3,063	1.9%
Smyth County	2,679	2,607	2,620	(2.2%)
Wythe County	3,151	2,551	2,484	(21.2%)
Peer Division Average	3,309	3,185	2,983	(9.9%)
Amherst County	2,244	2,385	2,441	8.8%
Appomattox County	1,376	1,390	1,478	7.4%
Bedford County	7,533	7,784	7,779	3.3%
Campbell County	4,576	4,797	4,545	(0.7%)
Lynchburg City	6,279	6,094	6,086	(3.1%)
Nelson County	1,829	1,801	1,757	(3.9%)

Source: Virginia Department of Education, 2014, Prismatic calculations.

Exhibit 7.5 compares ACPS's total annual operational transportation cost for regular transportation to that of peer and neighbor divisions. As shown, ACPS reported an increase from 2010-11 to 2012-13 despite a decrease in the peer average. While the ACPS increase was higher on a percentage basis, the division's overall spending figure in 2012-13 was slightly lower than the peer division average. Amherst exceeded only Appomattox County among the neighbors, with all others spending more on regular transportation than ACPS.

Exhibit 7.5
Comparison of total regular operational costs

Division	2010-11	2011-12	2012-13	Percent Change
Caroline County	\$ 1,931,305	\$ 1,578,310	\$ 1,623,389	(15.9%)
Carroll County	\$ 1,625,167	\$ 1,787,116	\$ 1,690,265	4.0%
Dinwiddie County	\$ 1,972,058	\$ 1,233,715	\$ 1,231,159	(37.6%)
Mecklenburg County	\$ 1,580,998	\$ 1,528,836	\$ 1,600,292	1.2%
Pulaski County	\$ 1,190,128	\$ 1,198,202	\$ 1,143,149	(3.9%)
Russell County	\$ 1,749,992	\$ 1,555,832	\$ 1,605,273	(8.3%)
Smyth County	\$ 1,072,878	\$ 1,170,429	\$ 1,134,076	5.7%
Wythe County	\$ 872,423	\$ 804,985	\$ 879,485	0.8%
Peer Division Average	\$ 1,499,369	\$ 1,357,178	\$ 1,363,386	(9.1%)
Amherst County	\$ 1,241,229	\$ 1,368,763	\$ 1,359,013	9.5%
Appomattox County	\$ 704,973	\$ 755,353	\$ 587,140	(16.7%)
Bedford County	\$ 3,161,757	\$ 2,720,676	\$ 3,427,728	8.4%
Campbell County	\$ 1,706,656	\$ 1,615,572	\$ 1,834,061	7.5%
Lynchburg City	\$ 1,661,818	\$ 1,768,679	\$ 1,979,355	19.1%
Nelson County	\$ 1,765,750	\$ 1,627,744	\$ 1,617,597	(8.4%)

Source: Virginia Department of Education, 2014, Prismatic calculations.

Exhibit 7.6 compares ACPS total annual regular operational miles to that of peer and neighbor divisions. As shown, ACPS increased its mileage from 575,838 miles in 2010-11 to 644,213 miles in 2012-13; this increase of 11.9 percent was greater than any peer or neighbor division. However, when considering the actual number of regular miles driven in 2012-13, ACPS was almost exactly in line with the peer average, falling only slightly below. Compared to the neighbors, ACPS was in the middle, although those that exceeded it did so significantly.

Exhibit 7.6
Comparison of total regular operational miles

Division	2010-11	2011-12	2012-13	Percent Change
Caroline County	704,553	705,993	708,249	0.5%
Carroll County	738,630	779,922	771,164	4.4%
Dinwiddie County	969,876	936,828	920,682	(5.1%)
Mecklenburg County	788,688	770,436	878,729	11.4%
Pulaski County	584,034	598,883	579,345	(0.8%)
Russell County	496,621	502,062	498,675	0.4%
Smyth County	409,376	409,799	408,963	(0.1%)
Wythe County	350,838	381,132	390,034	11.2%
Peer Division Average	630,327	635,632	644,480	2.2%
Amherst County	575,838	651,136	644,213	11.9%
Appomattox County	344,714	334,886	270,684	(21.5%)
Bedford County	1,175,400	937,413	1,248,660	6.2%
Campbell County	850,390	842,451	934,145	9.8%
Lynchburg City	585,400	602,093	611,096	4.4%
Nelson County	615,835	615,191	611,096	(0.8%)

Source: Virginia Department of Education, 2014, Prismatic calculations.

Exhibit 7.7 compares ACPS's total regular transportation operational cost per mile to that of peer and neighbor divisions over the past three years. As shown, the ACPS cost per mile

decreased 2.3 percent, from \$2.16 to \$2.11, likely due to the overall price of fuel. Most peer divisions saw a greater decrease. ACPS spent less per mile than the peer division average and all but one neighbor division in 2012-13.

Exhibit 7.7
Comparison of total cost per mile
Regular transportation

Division	2010-11	2011-12	2012-13	Change
Caroline County	\$ 2.74	\$ 2.24	\$ 2.29	(16.4%)
Carroll County	\$ 2.20	\$ 2.29	\$ 2.19	(0.5%)
Dinwiddie County	\$ 2.03	\$ 1.32	\$ 1.34	(34.0%)
Mecklenburg County	\$ 2.00	\$ 1.98	\$ 1.82	(9.0%)
Pulaski County	\$ 2.04	\$ 2.00	\$ 1.97	(3.4%)
Russell County	\$ 3.52	\$ 3.10	\$ 3.22	(8.5%)
Smyth County	\$ 2.62	\$ 2.87	\$ 2.77	5.7%
Wythe County	\$ 2.49	\$ 2.11	\$ 2.25	(9.6%)
Peer Division Average	\$ 2.46	\$ 2.24	\$ 2.23	(9.2%)
Amherst County	\$ 2.16	\$ 2.10	\$ 2.11	(2.3%)
Appomattox County	\$ 2.05	\$ 2.26	\$ 2.17	5.9%
Bedford County	\$ 2.69	\$ 2.90	\$ 2.75	2.2%
Campbell County	\$ 2.07	\$ 1.92	\$ 1.96	(5.3%)
Lynchburg City	\$ 2.84	\$ 2.94	\$ 2.87	1.1%
Nelson County	\$ 2.87	\$ 2.65	\$ 2.65	(7.7%)

Source: Virginia Department of Education, 2014, Prismatic calculations.

Exhibit 7.8 provides an overview of special education students each school division transported during the three-year period. ACPS saw a decrease from 107 students in 2010-11 to 87 students in 2012-13, while most neighbors experienced a significant increase. Peer divisions experienced a smaller decrease in special education students transported than Amherst. In 2012-13, ACPS transported more special education students than most peers, but less than three of its neighbors.

Exhibit 7.8
Comparison of total exclusive students transported

Division	2010-11	2011-12	2012-13	Percent Change
Caroline County	42	62	71	69.0%
Carroll County	56	53	65	16.1%
Dinwiddie County	118	84	74	(37.3%)
Mecklenburg County	89	79	81	(9.0%)
Pulaski County	73	67	51	(30.1%)
Russell County	39	41	42	7.7%
Smyth County	97	82	94	(3.1%)
Wythe County	46	37	26	(43.5%)
Peer Division Average	70	63	63	(10.0%)
Amherst County	107	169	87	(17.9%)
Appomattox County	28	27	35	25.0%
Bedford County	97	98	119	22.7%
Campbell County	44	67	93	111.4%
Lynchburg City	97	282	289	197.9%
Nelson County	4	12	17	325.0%

Source: Virginia Department of Education, 2014, Prismatic calculations.

Exhibit 7.9 compares ACPS's total annual operational transportation cost for exclusive transportation to that of peer and neighbor divisions. As shown, ACPS, like most peers and all neighbors, reported an increase from 2010-11 to 2012-13. In 2012-13, ACPS spent significantly more than the peer division average but more than only two of its neighbors.

Exhibit 7.9
Comparison of total exclusive operational costs

Division	2010-11	2011-12	2012-13	Percent Change
Caroline County	\$ 276,311	\$ 680,328	\$ 701,278	153.8%
Carroll County	\$ 456,348	\$ 408,922	\$ 634,558	39.1%
Dinwiddie County	\$ 403,498	\$ 623,912	\$ 604,410	49.8%
Mecklenburg County	\$ 211,487	\$ 197,907	\$ 301,145	42.4%
Pulaski County	\$ 342,026	\$ 317,800	\$ 327,683	(4.2%)
Russell County	\$ 373,593	\$ 364,097	\$ 363,689	(2.7%)
Smyth County	\$ 249,720	\$ 283,076	\$ 278,958	11.7%
Wythe County	\$ 443,403	\$ 582,618	\$ 541,812	22.2%
Peer Division Average	\$ 344,548	\$ 432,333	\$ 469,192	36.2%
Amherst County	\$ 524,309	\$ 476,332	\$ 525,855	0.3%
Appomattox County	\$ 210,477	\$ 218,107	\$ 227,653	8.2%
Bedford County	\$ 676,793	\$ 744,227	\$ 812,553	20.1%
Campbell County	\$ 997,642	\$ 1,099,661	\$ 1,124,561	12.7%
Lynchburg City	\$ 273,094	\$ 644,554	\$ 757,637	177.4%
Nelson County	\$ 63,688	\$ 320,029	\$ 293,085	360.2%

Source: Virginia Department of Education, 2014, Prismatic calculations.

Exhibit 7.10 compares ACPS total annual exclusive operational miles to that of peer and neighbor divisions. As shown, ACPS increased its mileage from 181,354 miles in 2010-11 to 187,391 miles in 2012-13; this increase of 3.3 percent was lower than most peer divisions and well below the peer average. As with regular transportation, ACPS ran a number of exclusive miles similar to the peer average in 2012-13. Its mileage fell roughly in the middle of the neighbor divisions.

Exhibit 7.10
Comparison of total exclusive operational miles reported

Division	2010-11	2011-12	2012-13	Percent Change
Caroline County	100,800	304,317	305,952	203.5%
Carroll County	174,611	148,860	225,212	29.0%
Dinwiddie County	134,280	294,714	275,652	105.3%
Mecklenburg County	74,916	70,358	90,453	20.7%
Pulaski County	110,301	93,396	93,215	(15.5%)
Russell County	100,521	111,240	106,960	6.4%
Smyth County	74,126	77,477	76,741	3.5%
Wythe County	125,891	191,702	169,919	35.0%
Peer Division Average	111,931	161,508	168,013	50.1%
Amherst County	181,354	163,138	187,391	3.3%
Appomattox County	94,031	85,506	89,442	(4.9%)
Bedford County	210,600	212,040	247,176	17.4%
Campbell County	337,646	421,632	422,154	25.0%
Lynchburg City	57,104	147,546	173,852	204.4%
Nelson County	14,730	109,021	98,730	570.3%

Source: Virginia Department of Education, 2014, Prismatic calculations.

Exhibit 7.11 compares ACPS's total exclusive transportation operational cost per mile to that of peer and neighbor divisions. As shown, the ACPS cost per mile decreased 2.8 percent from \$2.89 to \$2.81, exhibiting a similar trend to that of the peer average. In 2012-13, ACPS spent significantly less per mile than the peer division average, exceeding only two of its peers. It also maintained a cost per mile lower than that of all but two neighbor divisions.

Exhibit 7.11
Comparison of total cost per mile
Exclusive transportation

Division	2010-11	2011-12	2012-13	Change
Caroline County	\$ 2.74	\$ 2.24	\$ 2.29	(16.4%)
Carroll County	\$ 2.61	\$ 2.75	\$ 2.82	8.0%
Dinwiddie County	\$ 3.00	\$ 2.12	\$ 2.19	(27.0%)
Mecklenburg County	\$ 2.82	\$ 2.81	\$ 3.33	18.1%
Pulaski County	\$ 3.10	\$ 3.40	\$ 3.52	13.5%
Russell County	\$ 3.72	\$ 3.27	\$ 3.40	(8.6%)
Smyth County	\$ 3.37	\$ 3.65	\$ 3.64	8.0%
Wythe County	\$ 3.52	\$ 3.04	\$ 3.19	(9.4%)
Peer Division Average	\$ 3.11	\$ 2.91	\$ 3.05	(1.9%)
Amherst County	\$ 2.89	\$ 2.92	\$ 2.81	(2.8%)
Appomattox County	\$ 2.24	\$ 2.55	\$ 2.55	13.8%
Bedford County	\$ 3.21	\$ 3.51	\$ 3.29	2.5%
Campbell County	\$ 2.95	\$ 2.61	\$ 2.66	(9.8%)
Lynchburg City	\$ 4.78	\$ 4.37	\$ 4.36	(8.8%)
Nelson County	\$ 4.33	\$ 2.94	\$ 2.97	(31.4%)

Source: Virginia Department of Education, 2014, Prismatic calculations.

In total, the consulting team gave 13 commendations in this chapter:

- The transportation staff has taken the appropriate steps to explain and inform each awarded contract to the employees.

- Bus drivers and the transportation coordinator create and maintain route change logs that preserve a record of the most up-to-date route plans, simplifying future training of drivers and ensuring universal understanding of route plans.
- The transportation department has good procedures for keeping buses clean inside and out.
- The division frequently checks the status of all commercial drivers' licenses issued to bus drivers.
- The transportation staff ensures each bus driver is trained properly and routinely.
- The transportation department has a policy and procedure in place to rectify any possible lost contract time for bus drivers.
- The transportation department provides additional training on all types of buses to its drivers.
- The ACPS transportation department uses automated routing software in ways that exceed the industry standard.
- The transportation division has implemented a method for processing field trips in an efficient manner.
- The transportation department continues to provide VDOE and VDMV training conducted by certified trainers and testers.
- The transportation department continues to foster safety in all areas.
- The transportation department mandates frequent and routine preventative maintenance inspections.
- The transportation maintenance department has a controlled and efficient purchasing plan for parts and services.

The consulting team also made seven recommendations in this chapter:

- Hire one additional office support person so that the coordinator and dispatcher can be freed from some of their routine tasks to focus on areas that are more specific to their positions.
- Increase the number of computers available to transportation staff and require staff to use them procedurally and routinely.
- Coordinate training from the special needs department on each student's exceptionality and IEP.
- Provide the dispatcher with formal training on the routing software.
- Develop a bus replacement policy and identify funding needs for budget planning.
- Purchase a shed or shipping container to house some of the items currently stored in the work bay area.
- Send mechanics to annual mechanic certification training.

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.

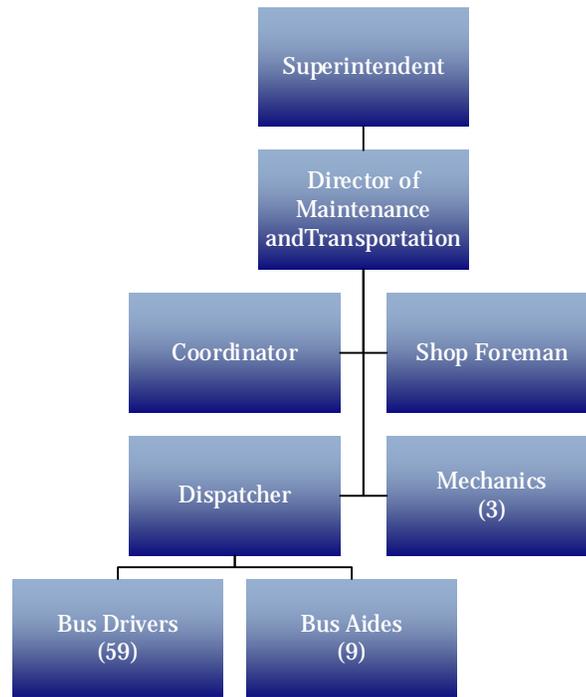
Recommendation		2014-15	2015-16	2016-17	2017-18	2018-19	Total
7.16	Develop a bus replacement policy and fund.	(\$700,000)	(\$700,000)	(\$300,000)	(\$300,000)	(\$300,000)	(\$2,300,000)
7.17	Purchase new storage.	(\$2,500)	\$0	\$0	\$0	\$0	(\$2,500)
7.20	Provide annual mechanic training.	(\$2,500)	(\$2,500)	(\$2,500)	(\$2,500)	(\$2,500)	(\$12,500)

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.

Exhibit 7.12 presents the organizational chart for the division's transportation department. The alignment of the ACPS transportation organization is a top-down structure and does not differ from the industry standard.

**Exhibit 7.12
Transportation organizational structure**



Source: ACPS transportation, 2014.

The current structure essentially requires the coordinator to work between 10 to 12 hours a day. This position is directly responsible for routing assignments and revisions, field trip assignments, school liaison, and overall daily operations. The dispatcher is responsible for office management, including all records management, time logs, leave input, vehicle registration, billing, and workmen’s compensation forms. The transportation director maintains administrative authority and delegation oversight. Because of his split responsibilities for transportation and maintenance, many administrative duties are assigned to the coordinator and dispatcher.

Currently, the transportation department has a staff of four full-time mechanics, one of whom is a shop foreman responsible for training, parts inventory, purchasing, fleet readiness, and supervision. The fleet maintenance operation is self-sufficient using best practices established by the VDOE and ACPS policies. The shop foreman maintains a three-bid policy for all parts and services. Bidding information is updated on a bimonthly basis.

The department has three trainers certified by the Virginia Department of Motor Vehicles (VDMV). Each trainer is responsible for training, testing, and remediating bus drivers. The trainers have instituted a policy of refresher training at will or on a regular basis. Each bus driver receives classroom instruction and training on all types of buses, and drivers are required to pass a written examination as well as a behind-the-wheel road test before assuming employment. All employees receive additional training on the special needs buses and must learn to use the wheelchair lift.

The transportation department maintains and adheres to policies and regulations required by the Virginia Department of Education (VDOE) and ACPS. Employees are encouraged to

take part in planning, route reviewing, training, and mentoring. The department has also begun the process of going paperless, with computers placed in the common areas for easy access for employee email, time sheets, leave request, and payroll inquiries.

FINDING 7.1

The transportation office staffing is extremely thin in comparison to typical pupil transportation operational standards. The transportation director is not directly involved in the daily operation, as his time is split with the maintenance department. Transportation was added to his responsibilities within the last year after the previous director left the position. The former dispatcher assumed the position of coordinator, and the dispatcher's position was filled by a bus driver. The dispatcher has assumed the role of timekeeper, benefits coordinator, leave sharing manager, and substitute driver.

The transportation coordinator has numerous responsibilities throughout the day. When employees call in for leave, he locates substitute drivers or transportation aides and gives each substitute a briefing on the route specifics. The coordinator also reviews the student database for new students, new student addresses, and recent field trip requests; staff submits these data through the routing software. The coordinator must communicate with the shop foreman to assign spare buses when vehicles are down for service. The coordinator is also the first point of contact for all transportation discipline across the division, and transportation discipline records are currently submitted to the transportation office for first response.

RECOMMENDATION 7.1

Hire one additional office support person so that the coordinator and dispatcher can be freed from some of their routine tasks to focus on areas that are more specific to their positions.

This position will provide assistance to the coordinator and dispatcher positions. This position would be staffed in the transportation building and would be assigned any secretarial or clerical responsibilities such as answering phones, briefing substitute drivers and aides, filing, making copies, processing mail, logging complaints, handling time sheet data, updating driver notebooks, and occasionally substituting as a bus driver.

FISCAL IMPACT

This recommendation can be achieved by transferring one of the four contracted standby driver positions to an office assistant position, with no change in salary. When the need arises for a substitute driver, transportation will then extract from the group of non-contracted drivers to fill this void.

FINDING 7.2

Employment contracts are based on the route times. Transportation offers four- to seven-hour contracts. Drivers have the opportunity to earn additional wages by taking unassigned field trips (so long as they do not exceed 40 hours per week). The transportation department utilizes routing software to track field trips. Employment contracts are awarded, with the knowledge beforehand, as to location and contract hours of each route. When a route or position becomes vacant, interested staff members already employed by the division are encouraged to apply.

Contracts are set to conditions, such as route location, facilitation of the vehicle, length of the route, and time in service. The issuance of extra-wage field trips is based on the completion of an employee's contracted hours. If an employee's route is short of the contracted hours, field trips are assigned to resolve the deficiency. This information is checked each operational day, and field trips are assigned before the end of the current pay period.

COMMENDATION

The transportation staff has taken the appropriate steps to explain and inform each awarded contract to the employees.

FINDING 7.3

Electronic time sheets and leave slips are being introduced in the transportation department. This measure has a dual purpose. First, each driver is responsible for his or her time management. Second, it gives each employee the opportunity to become familiar with computer usage for other electronic communications, such as email, newsletters, leave tracking, payroll, and online applications.

During daily operations, considerable staff time is lost to leave requests, payroll questions, and reprinting office memoranda. Many requests for information were previously placed on handwritten notes and were sometimes lost or repeated for several days. The dispatcher is working in several areas of operation, and must stop to attend to each inquiry.

RECOMMENDATION 7.3

Increase the number of computers available to transportation staff and require staff to use them procedurally and routinely.

Staff should be trained on using the computers to keep time and leave notes so that the use of unreliable paper memos is reduced. Using computers for all recordkeeping and interdepartmental communication provides an archive of staff activity and structured, reliable communication between staff members.

FISCAL IMPACT

The implementation of this recommendation should not create any additional cost as training can be achieved by using in-house technology services. The technology department can instruct several blocks of employees between the morning routing and the afternoon routing. The implementation of a computer use policy is standard within the school division and can be completed for appropriate transportation needs. The additional computers should not require any expense, as they can be attained from surplus inventories of the technology department.

FINDING 7.4

The transportation department receives minimal or no information on students with special needs. Special needs drivers and aides do not receive training on interaction or intervention strategies.

Bus drivers and transportation aides are only given word-of-mouth explanations of each student's exceptionality and, more often than not, no formal instructions at all. The

transportation department has no direct dialogue with the special education program about the students being transported; rather, it merely receives and fulfills special transportation requests. The transportation department trains every driver to handle the special education route and the wheelchair lift. However, beyond this, bus drivers are not trained on specific techniques to manage special education students on an individual basis. Thus far, the transportation department does not participate in the individualized education plan (IEP) meetings, and the transportation department does not have any direct input in the transportation-related outcomes of the meeting.

RECOMMENDATION 7.4

Coordinate training from the special needs department on each student's exceptionality and IEP.

The transportation department should receive educational training and information on each student as needed. Each driver and aide should receive supplementary training to understand, monitor, report, and interact with any student assigned to his or her vehicle.

The transportation coordinator should attend all IEP meetings, as each student's individual program may have implications for the transportation department. Special education drivers and aides should debrief with the special education department on a bimonthly basis to report, plan, and review any issues a student is experiencing. The transportation department should work in concert with the special education department to inform and educate all employees that may have direct interaction with special education students. The transportation department should receive a written intervention strategy for each special education student as well as peer monitoring from the special education department on a regular basis.

FISCAL IMPACT

ACPS has trained staff, counselors, and lead teachers that work directly with special education students and can provide adequate training to transportation staff. The consulting team estimates the trainers will need to spend less than 20 hours preparing and delivering the training. Training should be conducted during the mandated training sessions and before transportation services begin. The amount of time the training coordinator will need to spend in IEP meetings will vary by month, but should total less than 18 hours on average.

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 7.5

Each driver is required to compose and retain route change records. This written information is submitted to the transportation coordinator, who stores them as archived files and provides them to substitute drivers when necessary. The transportation department maintains these records for the duration of the school year. All route changes are incorporated in the routing software as they occur.

Currently, the transportation coordinator generates all bus routes using routing software. This information is updated before the start of each school year. Routes are based on time, length, and location of service area. Each route is driven for safety, and appropriate measures are taken to ensure that routes are run in compliance with VDOE regulation and ACPS policy. As route changes (such as road closures, new addresses, or address changes) occur, the transportation coordinator inputs the changes into the routing software for immediate delivery to the driver.

The transportation department maintains two copies of each routing scheme. The first is given to the driver, and the second is placed in the transportation office. Each driver is required to submit changes to the transportation coordinator throughout the school year. The coordinator maintains a copy of the change log in the driver's notebook. If administrative route changes are required by the transportation office, each driver is notified and receives a new copy of instructions and mapping detail for the route.

COMMENDATION

Bus drivers and the transportation coordinator create and maintain route change logs that preserve a record of the most up-to-date route plans, simplifying future training of drivers and ensuring universal understanding of route plans.

FINDING 7.6

Drivers receive a stipend, equal to 30 minutes of pay, once a month to wash the outside of the bus. All buses are checked by the coordinator on a weekly basis for cleanliness and again during the monthly preventative maintenance inspection conducted by the mechanics. Drivers and aides clean the inside of the buses daily.

The transportation department, along with the required VDOE 30-day preventative maintenance inspections, has created and implemented a program of daily cleaning and inspections. The ACPS transportation department requires that each bus be walked from front to back at the end of each assigned route. This task has two purposes: the first ensures that no child is left on the bus; and second, drivers and transportation aides retrieve any large debris from under the seats, on the seats, and in the aisles. Upon completion of the morning routing, each bus is swept, trash bags are emptied, and a record is maintained in the drivers' log books. When weather permits, transportation allows drivers to alternate wash days, providing everyone an opportunity to wash the outside of the bus.

COMMENDATION

The transportation department has good procedures for keeping buses clean inside and out.

FINDING 7.7

Drivers, contracted or non-contracted, maintain current Virginia Commercial Drivers Licenses. They are required to report any moving violations to the dispatcher upon the issuance of a citation.

The ACPS transportation department maintains VDMV driving records that comply with the Virginia Administrative Code. The department maintains a VDMV link for instant access to check commercial drivers' licenses. Before the start of each school year and before drivers are allowed to drive a school bus, each driver submits to a full driver's license review. The department then reviews the licenses on a bimonthly basis. Each driver's license is checked for proper endorsement and infraction history.

ACPS transportation policy mandates that any traffic infraction (including those that occur when drivers are operating a personal vehicle) must be reported to the dispatcher immediately. The transportation department defines standards of conduct, reporting procedures, and notification regarding moving violations, citations, and traffic infractions and lists them in the drivers' handbook.

COMMENDATION

The division frequently checks the status of all commercial drivers' licenses issued to bus drivers.

FINDING 7.8

The transportation department conducts two safety training sessions each school year. At each session the drivers receive the drivers' handbook and any updates to current policies. The drivers' notebooks are revised throughout the school year, and changes are placed in each driver's individual mailbox and kept on record in the dispatch office.

As mandated by state policy, ACPS's transportation department holds two information and safety meetings each school year. The first is held before the start of the school year; the second is held midway through the year. The transportation director and transportation coordinator conduct sessions, and the certified instructors give additional instruction on bus safety, policy updates, and required changes to licensure.

During the first safety session, employees receive an individualized copy of the policy, route, and mapping handbook. Student information, listed in the drivers' notebooks, must be secured at all times. Drivers' notebooks must be turned in to the transportation office whenever the assigned driver is absent from work. This measure is for the security of student information and allows the transportation staff to provide current information to the substitute driver at a moment's notice.

COMMENDATION

The transportation staff ensures each bus driver is trained properly and routinely.

FINDING 7.9

Bus drivers and aides complete their contracted time as substitutes and field trip drivers as needs warrant. First consideration is given to contracted substitutes;

then, unfulfilled transportation assignments are completed. Drivers are allowed no more than 40 work hours a week regardless of the contracted time.

Contracts are based on several considerations and are set to conditions such as route location, length of the route, and time in service. As the school year progresses and routes become either longer or shorter, the transportation coordinator logs and calculates the in-service time of each route. If a contracted route time decreases due to decreased ridership or some other reason, the route driver will become eligible for field trips to make up the lost time. This method allows the employee to earn consistent compensation. When more field trips are being scheduled, the transportation coordinator will assign the trips to the contracted substitutes first, and then, based on the in-service logs, to drivers who need to make up lost time.

COMMENDATION

The transportation department has a policy and procedure in place to rectify any possible lost contract time for bus drivers.

FINDING 7.10

Bus drivers are cross-trained on all classifications of buses used by transportation. Time is allowed at no extra cost for drivers to be trained as aides, and regular drivers are trained on all aspects of the special-needs buses. Individual attention is given to operating the wheelchair lift and securing students in booster seats.

The transportation department offers cross training in the area of driver compatibility in all styles of buses in the current fleet. During the in-service training session before the start of the school year, regular education bus drivers are trained in the operation of the special education buses. The opportunity to learn the mission and functionality of these buses is stressed for operational awareness and future drivability. The department employs a hands-on method for learning the wheelchair apparatus. Further training, provided by the VDMV-certified trainers and instructors, is available during the course of the school year.

COMMENDATION

The transportation department provides additional training on all types of buses to its drivers.

C. Routing and Scheduling

The routing and scheduling function is second only to the area of safety in determining the effectiveness of a transportation service. Routing determines the total number of routes, which in combination with bell schedules at each school dictates the total number of buses required. This total route bus count drives nearly every expense associated with transportation. The better the division routes and schedules for the system, the more efficient it becomes.

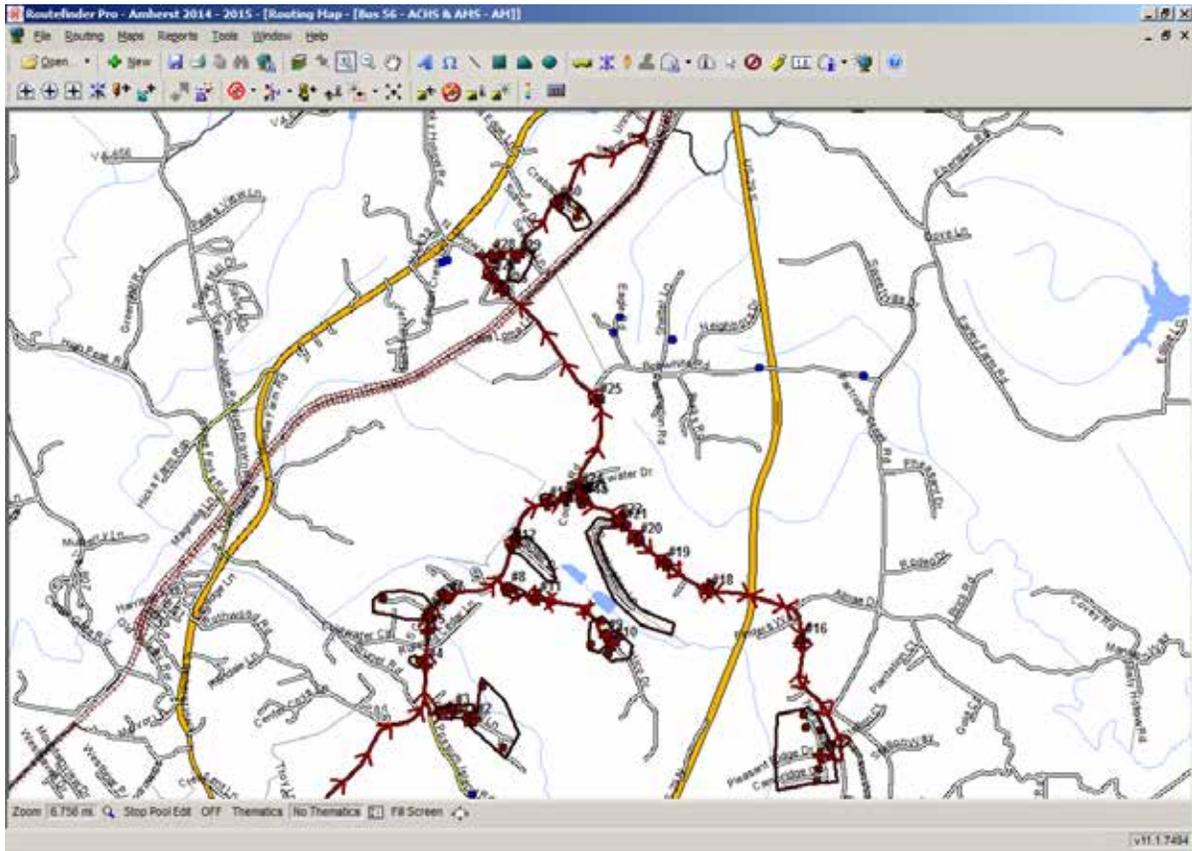
FINDING 7.11

The ACPS transportation department utilizes Transfinder routing software (Exhibit 7.13). All routes are developed using the software, and all routes are adjusted as



needs arise. Keeping shifting demographics among student residences and school boundaries in mind, each route is driven for safety and efficiency within the prescribed attendance zones. The coordinator has developed a patch between the student database and the routing software that allows the department to know, on the fly, about any changes in student addresses.

Exhibit 7.13
Transfinder routing software screenshot



Source: ACPS transportation department, April 2014

During the 2013-14 midyear cycle of routing, the transportation coordinator implemented the most current update and expanded version of ACPS's routing software. Throughout the school year, routes are adjusted for any change, such as change of address, abandoned stops, road closures, turn-around sites, and hazardous conditions. Further, routes are reviewed on a weekly basis to ensure that efficiency and on the standard are maintained.

COMMENDATION

The ACPS transportation department uses automated routing software in ways that exceed the industry standard.

FINDING 7.12

The coordinator is the end user for the routing software and has taken online classes to hone his skills. The dispatcher is learning to use the software and is becoming proficient with daily use.

The current routing software has been in use for the past two years. The transportation coordinator is proficient and continues to train the dispatcher on certain user functions. However, the dispatcher has not completed any formal, structured training yet. Currently, the dispatcher is tasked with creating output route information and entering field trip data for approval. Onsite training of the dispatcher is done as time allows and is geared towards specific tasks. More specialized training can be accomplished through online courses provided for free by the software vendor as part of the utilization agreement.

RECOMMENDATION 7.12

Provide the dispatcher with formal training on the routing software.

The dispatcher is a capable user of the routing software at a fundamental level. Improving the skills of the dispatcher ensures the coordinator has a capable substitute when necessary and can alleviate the coordinator of some tasks. The transportation director should review the schedule of the dispatcher, and calendar training in the routing software.

FISCAL IMPACT

The online training regimen, which is provided for free by the software vendor, can be conducted in-house and will only require the time of the dispatcher. If needed, the transportation director should approve additional time in the summer for training. More advanced functions are included with the purchase of the software, and training is conducted during real-time use. The consulting team estimates that the dispatcher should attend a minimum of 20 hours of online training.

FINDING 7.13

Field trips are assigned via the routing software and are tracked in the same manner. This expedites the approval and tracking processes.

During 2012-13, before the software was used to manage them, more than 43,000 miles were logged at a cost of \$92,000 for field trips (five percent of the total miles driven for the year). The procedure of requesting a field trip involved submission via an inner-office envelope, an email request, or a third-party telephone call. All field trips were manually generated in a paper request format.

With the current usage of routing software, the overall process has been automated and streamlined for more efficiency. To request a field trip, a school administrator submits an application via an email service that interfaces with the routing software. The transportation department has set user permissions and approval benchmarks for each school or department, ensuring a catered approval process for each request. Once a field trip request reaches final approval, the transportation coordinator will receive a notification through the routing software, which generates a trip ticket and automatically assigns the trip to a driver.

COMMENDATION

The transportation division has implemented a method for processing field trips in an efficient manner.

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 trained is a primary responsibility of department management. A successful safety program constantly reinforces proper procedures 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 7.14

The ACPS transportation department has a total of four driver trainers and two third-party testers. Each is VDOE-certified and conducts training classes as needed. The department also provides remediation training once a month.

COMMENDATION

The transportation department continues to provide VDOE and VDMV training conducted by certified trainers and testers.

FINDING 7.15

The transportation department fosters safety in a variety of ways. The department's methods for promoting safety include:

- Safety messages are delivered each morning via the radio.
- Drivers are required to check the bus for sleeping students at the end of each route assignment.
- Discipline conduct reports are given directly to the parents, and copies are sent to the school administrators.

COMMENDATION

The transportation department continues to foster safety in all areas.

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 operations. These tasks support the delivery of transportation services by ensuring the availability of a safe and reliable bus fleet.

FINDING 7.16

The transportation department typically receives \$200,000 to \$300,000 each year for the purchase of new school buses. This supports the purchase of two to three buses annually. VDOE recommends the replacement of each bus when it has been in service for 15 years. At the current pace of funding for new buses, it will take 25 or more years to rotate the ACPS bus fleet.

School bus replacement is an essential transportation necessity; ACPS is required by the Virginia Administrative Code (8VAC20-70-490) to establish and maintain an ongoing procurement policy for the purchase of school buses. The current strategy for acquiring new school buses is financed by the local county government. Depending on the funding level, three buses are purchased each year. Presently, the transportation department maintains a fleet of 74 regular buses, including nine special education buses. As outlined in **Exhibit 7.14**, there are six 1998-model buses in use in ACPS; these exceeded the benchmark recommendation established by VDOE. Four additional buses will be recommended for replacement in 2014, with eight more up for replacement in 2015.

Exhibit 7.14
Buses exceeding or nearing age-out

Bus	Model	In Service	VDOE Recommended Replacement Year	Mileage
16	1999	Dec. 1998	2013	135,969
23	1999	Dec. 1998	2013	240,565
26	1999	Dec. 1998	2013	175,177
42	1998	Jan. 1998	2013	203,222
80	1998	Jan. 1998	2013	198,725
82	1998	Jan. 1998	2013	153,560
24	2000	Sep. 1999	2014	237,760
43	2000	Sep. 1999	2014	135,662
84	2000	Sep. 1998	2014	220,735
92	2000	Dec. 1999	2014	185,291
30	2001	Oct. 2000	2015	230,167
32	2001	Dec. 2000	2015	352,257
34	2001	Nov. 2000	2015	267,112
37	2001	Oct. 2000	2015	146,200
45	2001	Nov. 2000	2015	141,342
90	2001	Mar. 2000	2015	143,466
93	2001	Nov. 2000	2015	188,048
94	2001	Nov. 2000	2015	177,309

Source: ACPS transportation department, April 2014.

RECOMMENDATION 7.16

Develop a bus replacement policy and identify funding needs for budget planning.

The National Association of State Directors of Pupil Transportation Services (NASDPTS) recommends that buses be replaced every eight to 15 years, depending on the type of bus. Also at least two of ACPS's buses have been driven more than 250,000 miles, and the

NASDPTS recommends that buses exceeding this benchmark be replaced due to their long-term use alone.¹

The funding for new buses should be increased to replace 10 buses in each of the next two years and then five to six buses each year, which is consistent with a 15-year replacement policy. A policy that ensures replacement of buses older than the VDOE standard will ensure buses are compliant with evolving regulations, safe for students to ride, as well as visually presentable.

FISCAL IMPACT

If the division guarantees funding to replace 10 buses for each year for two years, this will require an additional \$700,000 per year (based on the current routine of providing, at most, \$300,000 for replacements each year). Any replacement dollars not used in a current year can be returned to the general fund or rolled over to the next year’s replacement fund.

Recommendation	2015-16	2016-17	2017-18	2018-19	2019-20
Provide a ten-per-year bus replacement fund.	(\$700,000)	(\$700,000)	(\$300,000)	(\$300,000)	(\$300,000)

FINDING 7.17

The bus shop area is small. Storage space has become a major concern, as parts are stored in areas that should be reserved for free space and movement. Parts are stored so haphazardly that they cannot be organized effectively. The wash bay is now used for storage, thus reducing the number of bays available for vehicle repairs.

The maintenance shop has four service bays (**Exhibit 7.15**) for vehicle service and maintenance. The shop has ample room to support this mission, but the overall space availability is wasted, due to poor storage. The area identified as “Bay 1” has become a storage hallway, muddled with an assortment of items ranging from tires to oil drums (**Exhibit 7.16**). Due to the lack of storage, additional entryways were manually cut in two locations (**Exhibit 7.17**). On either side of the entryways, concrete pads were laid and metal sheds were erected. The tire shed is at full capacity, and the secondary storage room is full. The tire storage area is partially exposed to weather effects; rainwater pools on the concrete slab and the entryway to the main structure is not properly sealed (**Exhibit 7.18**).

¹ <http://www.nasdpts.org/Documents/Paper-BusReplacement.pdf>



Exhibit 7.15

Bus garage service bays 1-4



Bus garage front entrance bay 1



Source: Prismatic, April 2014.

Exhibit 7.16

Inside of maintenance shop



Source: Prismatic, April 2014.

Exhibit 7.17

Spare tire storage room



General storage room



Source: Prismatic, April 2014.

Exhibit 7.18

Tire storage entranceway



Source: Prismatic, April 2014.

RECOMMENDATION 7.17

Purchase a shed or shipping container to house some of the items currently stored in the work bay area.

The purchase of a metal self-contained storage or shipping container will improve the overall storage space of the garage area. Such a container will serve as a securable storage unit for expensive maintenance materials and will offer better protection against inclement weather.

FISCAL IMPACT

The purchase of a metal shed or shipping container would be a one-time cost and can be purchased through the parts line of the transportation budget. The consulting team

estimates that such a storage unit, if new and of high quality, can be purchased for approximately \$2,500.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Purchase new storage.	(\$2,500)	(\$0)	(\$0)	(\$0)	(\$0)

FINDING 7.18

Preventative maintenance inspections are conducted each month for all buses and automobiles used to transport students. The shop foreman prepares a list of inspections for each day of the month. The schedule is printed and placed in each driver’s paycheck envelope at the end of the month.

The transportation fleet maintenance service performs mandated maintenance and vehicle repairs on the all vehicles owned by the ACPS. Currently, mechanics are assigned a certain quota of vehicles and are responsible for all repairs. Preventative maintenance inspections are done in 30-day rotations rather than the recommended 45-day rotation as outlined by the VDOE, providing extra attention to continued maintenance.

COMMENDATION

The transportation department mandates frequent and routine preventative maintenance inspections.

FINDING 7.19

Vehicle parts are ordered by the shop foreman. Each part is bought at the lowest possible price, which is checked against a downloaded vendors’ price list that is updated twice a month.

Understanding the need for getting the best possible price for goods and services, the department has instituted a three-bid policy for any purchase. Along with this cost-saving measure, the transportation maintenance department also works with industry peers to crosscheck pricing for contracted services and purchased materials.

COMMENDATION

The transportation maintenance department has a controlled and efficient purchasing plan for parts and services.



FINDING 7.20

Diagnostics software is used on all buses. However, mechanics do not receive formal training on usage and implementation. Since 1999, all buses and vehicles have been equipped with some form of computer software. In general terms, these computers tell the mechanic how the vehicle is functioning. However, ACPS mechanics have not been formally trained to use the diagnostic software, nor is there a process in place to gather this vital information. Mechanics have been learning about usage and operation of the diagnostic software by trial and error. The transportation department has computer diagnostic software, but training is limited to the shop foreman.

RECOMMENDATION 7.20

Send mechanics to mechanic certification classes.

Methods and best practices for fleet maintenance are constantly evolving. The challenge to keep up with changing standards is compounded when mechanics spend several hours or days attempting to solve a complex problem for which there may already be a widely used solution. Providing routine and comprehensive training to mechanics ensures they can approach many cumbersome tasks with more confidence and experience.

FISCAL IMPACT

ACPS should allocate \$2,500 per year for routine mechanic training.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Provide annual mechanic training.	(\$2,500)	(\$2,500)	(\$2,500)	(\$2,500)	(\$2,500)

This chapter reviews technology management in seven areas:

- A. Organization and Staffing
- B. Staff Development
- C. Instructional and Administrative Technology
- D. Technology Planning and Budgeting
- E. Technology Policies and Procedures
- F. Systems Infrastructure and Integration
- G. Technical Support and Help Desk Operations

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*¹ 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.

¹ <http://www.digitalllearningnow.com/10Elements/>

Exhibit 8.1
Digital learning 2012 state analysis: Virginia

10 Elements of High Quality Digital Learning	Virginia Grade and Percentage		National Average Grade and 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.digitallearningnow.com/wp-content/uploads/reportcard/2012/states/VA.pdf>

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

- The ACPS superintendent, director of academics, and technology staff are commended for recognizing the importance of planning and building a strong cohesive instructional technology infrastructure for the division.
- The ACPS instructional technology resource teachers (ITRT) team is commended for hosting the Summer Technology Academy (STA), offering teachers and staff innovative strategies for integrating technology in the curriculum.
- ACPS has developed a robust educational technology plan that is aligned with the state-required standard of quality (SOQ) and the division's multi-year strategic plan.
- The technology department staff is commended for the support they provide to the users.

The consulting team also made six recommendations in this chapter:

- Reestablish the ITRT position that was lost in 2011-12 due to budget cuts.
- Form a technology committee of ACPS and county financial, payroll, and technology departments to investigate methods for reducing paper flow and rekeying of data between the two systems.
- Fund a technology plan that allows for increased technology usage.

- Create standard operating procedures for mission critical areas in technology.
- Develop a comprehensive disaster recovery plan that will ensure the ability to resume critical data functions in the event of a catastrophic loss.
- Refresh network infrastructure equipment at Madison Heights and Central.

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	2014-15	2015-16	2016-17	2017-18	2018-19	Total
8.3 Add one ITRT position.	(\$60,500)	(\$60,500)	(\$60,500)	(\$60,500)	(\$60,500)	(\$302,500)
8.6 Budget for increased technology usage.	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)	(\$100,000)
8.8 Develop disaster recovery plan.	(\$50,000)	\$0	\$0	\$0	\$0	(\$50,000)
8.9 Refresh network infrastructure equipment at two schools.	(\$32,000)	\$0	\$0	\$0	\$0	(\$32,000)

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 mission of the International Society for Technology in Education’s (ISTE) 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.²

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**.

² 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

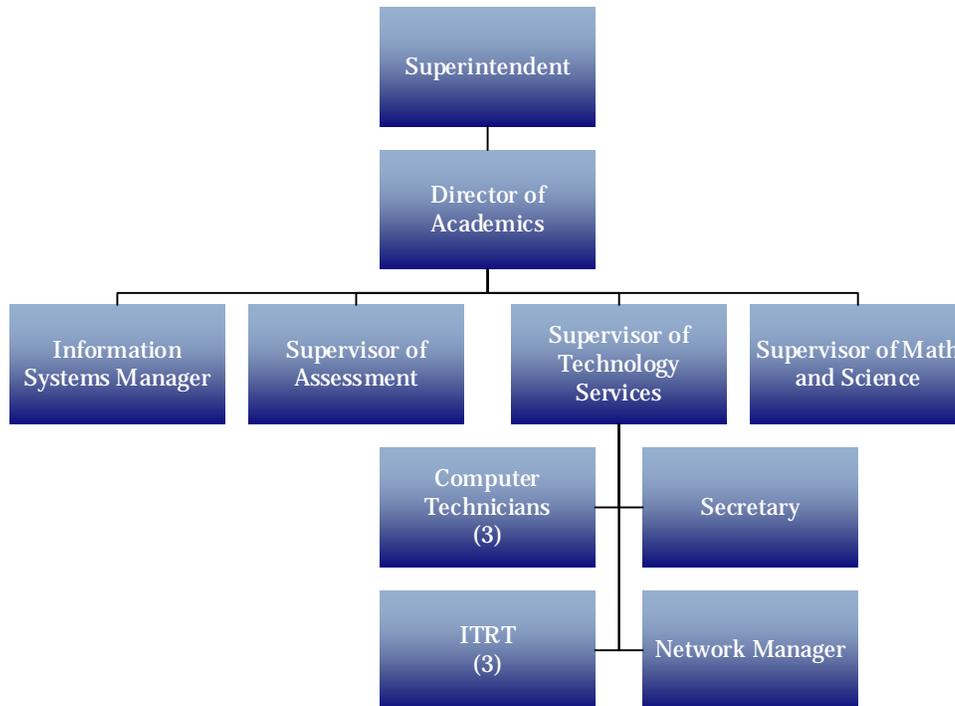
Source: ISTE, January 2014.

Ideally, technology is one area of a school division that supports administrative and instructional personnel in a positive manner. Organizing and providing technology resources to effectively achieve this outcome can be challenging. In a 2012 report by Fiscal Crisis and Management Assistance Team (FCMAT) it was noted that school divisions traditionally have vertical hierarchical organizational structures where working groups are formed based on the functions performed. For example, accounting and budgeting tasks are grouped together under the Business Department. This type of structure promotes functional efficiency, but can hinder communication and workflow between other departments. Horizontal hierarchical structures, on the other hand, encourage more collaborative environments with a greater focus on process than specific functions. Smaller school divisions use a combination of both structures in which senior managers oversee multiple departments; however, this type of structure necessitates stronger internal control procedures to prevent

management from overriding internal controls.³ In the area of technology, ACPS uses a combination of the vertical and horizontal hierarchical structures.

Exhibit 8.3 shows the 2013-14 organization of the ACPS administrative and instructional technology structure. The division employs a full-time information technology services team, staffed with a supervisor of technology, secretary, network manager, three computer technicians, and three instructional technology resource teachers (ITRTs). The supervisor of technology reports to the director of academics who reports to the superintendent. The chart also shows that the instructional supervisor of assessment and supervisor of math and science report to the director of academics. This provides a cluster where senior management has oversight of both the technical administrative support and the instructional technology services vital to the students, teachers, and administrators of ACPS. This cluster also includes oversight of the student information system maintenance, student data collection, and state reporting. The PowerSchool student information software application is maintained by the information systems manager position. The information systems manager meets weekly with the director of academics, has daily informal discussions with the supervisor of technology, and serves as backup for the assessment coordinator.

Exhibit 8.3
ACPS technology services and related department organizational chart



Source: Created by Prismatic, April 2014.

³ <http://fcmat.org/wp-content/uploads/sites/4/2014/02/RescueUSDfinalreport935.pdf>

FINDING 8.1

The ACPS superintendent and staff recognize the importance of planning and strategizing together to ensure that instructional technology keeps pace with the 21st century classroom. The superintendent and director of academics meet with the technology supervisor monthly to strategize about specific technology issues and future infrastructure plans. These administrators also meet monthly with the technology supervisor and the ITRTs, focused on the professional staff development and instructional needs of the division. The superintendent and entire technology management team, including the supervisor of math and science and the coordinator of assessment, meet regularly to strategize and ensure that they remain focused on the goal of offering excellence in instructional technology.

The computer technical staff participates in departmental planning, strategizing, and analysis of technology issues. The technology department staff begins each work day with an informal review of the previous day's technical issues, solution discussions, and assignments. **Exhibit 8.4** shows the ACPS technology services department workspace, and **Exhibit 8.5** shows the network's organized performance monitor.

Exhibit 8.4
ACPS technology services department



Source: Prismatic, May 2014.

Exhibit 8.5
ACPS network performance monitor



Source: Prismatic, May 2014.

During interviews the consulting team heard from multiple employees who stated that they were members of a team, a family, and that one of the most important reasons they wanted to work at ACPS was because of the people and the cooperation and support shared by the employees. During focus groups, teachers commended the technical and ITRT staff for their responsiveness, diligence to support issues, and service provided by everyone on the technology team.

Additionally, the superintendent involves the administrative staff in the decision-making process. Input is encouraged and expected. He also works closely with the county board of supervisors, school board members, and meets with members of the community, and parent groups. In April 2014, ACPS received the 2014 Large Business of the Year award from the Amherst County Chamber of Commerce. ACPS was praised for the willingness of all employees to engage in activities outside the classroom that enhance the county.

COMMENDATION

The ACPS superintendent, director of academics, and technology staff are commended for recognizing the importance of planning and building a strong cohesive instructional technology infrastructure for the division.

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.

Over the years, many studies have documented the pivotal role of technology professional development in enabling schools to realize the value of investments in technology.⁴ Teachers who participate in regular, hands-on training that addresses important issues of curriculum and teaching, in addition to the typical technical 'how-tos', are those most likely to use technology in ways that promote higher order thinking in the classroom.⁵

Integrating technology in meaningful ways involves matching instructional tools with curricular goals, desired student outcomes, and instructional practice. Choosing the 'right' tool for a learning task requires not only familiarity with the kinds of tools available, but also depends upon an understanding of how those tools can support the development of desired knowledge and skills. As with any tool selected for any purpose, the choice of what technology to use and how to use it must be guided by a vision for how learning is best supported. The ACPS 2010-2016 educational technology plan includes the following belief:

Technology chosen to be integrated into instruction must have a pedagogical [teaching] purpose if it is to be used as an effective tool in the 21st Century Classroom. It must be carefully planned and implemented. It is for this reason that Professional Development combined with Professional Learning Communities is a focus for all staff members.

FINDING 8.2

Summer Technology Academy (STA), hosted by the ITRTs, is in its fourth year of offering teachers a three-day technology update during early June. Sessions are planned for the new features of PowerTeacher Gradebook, the pilot project for bring-your-own-device (BYOD), and other innovative 21st century software application discussions.

⁴ Office of Technology Assessment (1995); Coley, Cradler, & Engel (1997); Silverstein et al. (2000); Sandholtz (2001)

⁵ National Center for Education Statistics (1999). Retrieved from <http://www.nces.ed.gov/>

Teachers and staff are invited to attend sessions on technology integration strategies designed to improve their teaching practices. The STA engages teachers in sessions that will strengthen their content knowledge throughout the school year and help to better embed technology into classroom practice. Along with the ITRTs, presenters include central office personnel and teachers discussing and demonstrating the use of 21st century technology tools.

Educators outside of the Amherst area have shown interest in the STA format. ITRTs have even presented the format at the annual meeting of the Virginia Society for Technology in Education (VSTE). Online registration, schedule information, and session descriptions are available on the ACPS website.

Examples of some of the STA sessions are:⁶

- ❖ *Technology in the math classroom* – This class will show how to use various forms of technology to teach SOLs in the math classroom. Items shown will include websites, apps, and various devices.
- ❖ *Teaching Writing: 21st century tools for effective learning* – Learning to collaborate with others and connect through technology are essential in what has become a knowledge-based economy. Participants will explore several great online tools that will both engage and build your students' writing skills.
- ❖ *Introduction to Moodle* – In this class participants will learn the basics of using Moodle, a free learning management system that provides always-on course access and spaces for collaboration and assessment with instant feedback. You will explore the basic functions of the site from setting up classes and assignments to using it as an assessment and survey tool.
- ❖ *PowerSchool Gradebook for Teachers* – PowerTeacher Gradebook will be changed for the 2014-15 school year... come get a heads up on the new features. Need help with PowerTeacher Gradebook? This session will also give you the opportunity to ask questions and see what PowerTeacher Gradebook can do for you!

COMMENDATION

The ACPS ITRT team is commended for hosting the Summer Technology Academy (STA), offering teachers and staff innovative strategies for integrating technology in the curriculum.

FINDING 8.3

The consulting team found that ACPS teachers need more professional development and assistance with integrating technology into the curriculum. Since 2011-12, due to budget cuts, the three ITRTs are spending more time teaching in the labs and less on staff development. They work well with the teachers and each other and are praised by school and administrative employees for their diligence and willingness to provide support to ACPS employees.

Originally, in 2004 there were four ITRT positions. One ITRT was replaced after the incumbent employee became an assistant principal; later an ITRT position was removed and

⁶ <http://acpssummertech.weebly.com/>

the incumbent employee became a classroom teacher. Since the budget cuts, the three ITRT positions provide support to a 2013-14 student enrollment of 4,098, and a population of more than 400 certified professional employees at 11 locations. Student enrollment as of March 31, 2013 was 4,178. Given the number of students, administrative users, and the VDOE requirement of one full-time ITRT per 1,000 students, ACPS staffing does not meet the intent of the Virginia Standard of Quality (SOQ) for ITRT full-time equivalencies (FTEs). Enrollment for 2013-14 and projections for 2014-15 would require four ITRTs. Moreover, the interviews revealed at all levels that the fourth ITRT position should be reinstated so that they have more time during the school year to devote to working with the teachers, attending conference workshops, and developing innovative ways for the teachers to use technology in the classroom to stimulate learning.

The following issues were mentioned as having a detrimental effect on the ability of the ITRTs to function as they should in the schools:

1. Loss of the fourth ITRT funded position, which adds more school assignments to the remaining three ITRTs.
2. ITRTs have limited time at each school. A school may see their ITRT only once a week.
3. A school improvement requirement that ITRTs spend more time in the technology lab teaching the Internet safety program.
4. The teacher personal learning communities (PLC), though beneficial to them, limit the time that the ITRTs can spend working one-on-one with the teachers who need it most.

ACPS completed an in-house needs assessment survey in March 2014 that corroborates the teachers' need for more technology training. The assessment survey led to the following conclusions:

- the Internet safety program appears to be effective, but must be kept current;
- more students have Internet access at home than was anticipated;
- technology is not being utilized as a part of daily homework assignments;
- teachers are primarily using the basics of Microsoft Office for classroom projects (i.e. Word, PowerPoint);
- parents are not aware of how much technology their students are using on a daily basis;
- instructional staff must be involved in the decision-making process regarding instructional technology purchases;
- technical competencies must increase for all end users; and
- funding must be in place for replacement of existing technology, deployment of new technologies, and projects that allow the learning community to explore new technologies.

RECOMMENDATION 8.3

Reestablish the ITRT position that was lost in 2011-12 due to budget cuts.

This would reduce the number of schools each ITRT is assigned to support, thus giving them more time at each school to focus on training teachers in instructional technology excellence. ITRTs could expand their efforts in planning or co-planning technology based lessons,

conduct periodic sessions for parents to increase their exposure to the technology used by the students, identify new technology teaching tools, and prioritize the benefits of each. This would save teachers time in selecting educational tools without combing through the myriad of applications and software advertised by the industry.

FISCAL IMPACT

The consulting team estimates that reinstating one ITRT position would cost ACPS approximately \$50,000, plus benefits of 21 percent, for a total annual fiscal impact of \$60,500.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Add one ITRT position.	(\$60,500)	(\$60,500)	(\$60,500)	(\$60,500)	(\$60,500)

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 of May 2014, ACPS had distributed approximately 1,248 desktop computers, 426 laptops, and 270 iPod computers, of which 1,331 are allocated for student use and 613 for administrative use. According to staff, approximately 25 computers may be unusable due to damage caused by water left running on the floor above a computer lab at Amherst County High School. The water leaked to the floor below and caused damage to the devices. **Exhibit 8.6** shows the technology lab at Monelison Middle School. It is equipped with student-accessible laptops as well as an interactive whiteboard.



Exhibit 8.6
Technology lab at Monelison Middle School



Source: Prismatic, April 2014.

Exhibit 8.7 shows the inventory of the computers used in the division. The number of interactive whiteboards, projectors, document cameras, iPads, and other technology equipment was not available.

Exhibit 8.7
ACPS computer inventory by use

Inventory of staff computers by campus and configuration	Teacher/ Admin Computers	Student Computer Devices	Total Devices
Amherst County High School ⁷	125	323	448
Amherst Education Center	16	46	62
Amherst Middle School	38	154	192
Monelison Middle School	80	203	283
Amelon Elementary School	42	81	123
Amherst Elementary	33	81	114
Central Elementary	20	125	145
Elon Elementary School	24	81	105
Madison Heights Elementary School	43	81	124
Pleasant View Elementary School	13	78	91
Temperance Elementary School	13	78	91
Administrator laptops	28	-	28
School board members and Central Office administrators	10	-	10
Division Training Lab – Apple	25	-	25
Division Training Lab – Dell	25	-	25
Computer Techs/ITRTs	8	-	8
Apple iPod carts – laptops	10	-	10
School Administration Office	26	-	26
Child nutrition	27	-	27
Adult education	4	-	4
Maintenance	3	-	3
Total	613	1,331	1,944

Source: Compiled by Prismatic, based on ACPS Technology Services Computer Inventory List, March 2014.

FINDING 8.4

There is little data integration between software applications used for central administrative functions. ACPS financials, payroll, and human resources computer functions are processed on two hardware platforms hosted by the county; both platforms are referred to as the AS400. The current county platform was purchased four years ago and is now the iSeries. For the purposes of this chapter, the hardware will be referred to by its ACPS name, the AS400.

The financials, payroll, and human resources major administrative functions are processed by separate software modules within the Comprehensive Information Management for Schools (CIMS) application package. These modules do not interface with each other or with the county Bright software package that produces and stores the final files for ACPS. This results in department personnel maintaining private files, spreadsheets, and file drawers of information that must be keyed and balanced on both the ACPS and the county systems.

Examples of this are requisitions and purchase orders that are often submitted via email, printed on paper, and keyed into the CIMS financial management AS400 system. The purchase order is usually printed, and may be emailed back to the requesting user who often also prints it, again creating additional paper flow. Another example is the more than 200

⁷ Some computers at this school have water damage.

weekly timesheets received from the classified employees by the payroll clerk. This information is keyed into the CIMS AS400 payroll module for processing by the payroll clerk, except for the bus driver sheets, which are keyed by a transportation staff member. In both examples, the data from the CIMS system is rekeyed on the county Bright system for final processing. Some data integration exists between PowerSchool and interactive achievement software for uploads of student data, but this interface still requires manual intervention for codes and data compatibility edits.

The existing administrative software used by ACPS financials, payroll, and HR is functional and through interviews it was determined that the applications meet the needs of the division users. In a small to mid-size school division, it is not unusual for users to accept rekeying of data from one system to another as a necessary part of doing business. However, it does not have to be. The ACPS financial process is working, but it can be improved. For example, rekeying of data in both AS400 systems could be reduced if not eliminated by utilizing a web-based software solution or entering data directly into the iSeries financial application. Another example is, now that direct deposit will be mandatory beginning in July 2014, employees should have online access to view their check stubs. County IT staff plans to implement this functionality in the future.

In addition to the AS400, ACPS provides many software applications for employee use in the day-to-day operation of administrative and instructional duties. **Exhibit 8.8** is a list of major administrative software packages in use at ACPS.

Exhibit 8.8
Major ACPS administrative software packages by functional area

Software	Primary Users
School Dude	Transportation
Transfinder	Transportation
PowerSchool	Administration and teachers
Helpdesk	ACPS
Messaging System	ACPS
Cross Match Fingerprint	HR
ID Badge	HR
Survey Monkey	Technology
Barracuda Email Archive	Technology
Barracuda Spam Filter	Technology
Aruba Wireless System Support	Technology
iBoss Webfilter	Technology
School Interoperability Framework	Technology
AESOP Substitute Absentee Software	ACPS
Manatee Accounting Software for Schools	Secretaries and bookkeepers
Symantec Endpoint Protection	Technology
DameWare Mini Remote control	Technology
Follett Destiny – Library Catalog	ACPS
WinOcular Online Application	ACPS
Board Docs	School Board
AS400	Secretaries and bookkeepers

Source: ACPS Technology Services Department, March 2014.

In addition to administrative software packages, instructional software packages are also used within each school. School-based major instructional software includes:

- Stars Homebound Student;
- Accelerated Math;
- Accelerated Reading;
- SOLpass.org;
- Sunburst Type to Learn 4;
- Gaggle Student Email;
- Interactive Achievement; and
- World Book Online.

RECOMMENDATION 8.4

Form a technology committee of ACPS and county financial, payroll, and technology departments to investigate methods for reducing paper flow and rekeying of data between the two systems.

ACPS technology services should designate an IT person to serve on the committee as the ACPS technology liaison between the AS400, CIMS software vendor, Bright software vendor, and the staff members who process the data. Initial steps should be:

1. County IT department installs on the CFO and payroll PCs the latest version of the program that converts reports to Excel spreadsheets. This would allow easier maintenance and balancing of data. An older version of the software program is no longer operable on the CFO's current workstation. This request has already been submitted by the CFO to the county IT department.
2. County provides ACPS access to the division data maintained on the AS400 via inquiry screens, report writer, or query generator software. This would allow ACPS financial and payroll personnel to run their own inquiries when they need information such as vendor addresses, bills, wage reports, payroll with check numbers, etc. This request may have been previously submitted by the CFO to the county IT department.
3. ACPS works with the county and the vendor to determine if it would be feasible to key ACPS data directly into the Bright financial system with proper data edits and controls. ACPS would need to retain the functionality they currently have to produce required ACPS reports in a timely manner and provide necessary checks and balances for data accuracy and security.

The technology committee should investigate the web-based version of the financial software and run a pilot project to determine the feasibility of moving into a more 21st century approach to processing these critical administrative data functions.

FISCAL IMPACT

There should be no additional cost to implement the items listed in the recommendation. The report conversion program in the first item already exists and has been requested by ACPS. The second item involves access rights to the ACPS data on the county system and training of ACPS personnel by the county on the use of the inquiry and reporting tools

available on the financial software. This should be accomplished in one or two days. Within a month, the proposed technology committee should be able to determine the feasibility of keying directly into the Bright system and determining whether this would be something ACPS would want to pursue in detail (the third item). Investigating the web-based version of the Bright software should be at no additional cost to the division.

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 affected. Sustained communication is crucial to system-wide planning, implementation, and evaluation.

Several studies, including research by the Gartner Group⁸, an independent technology research and consulting firm, report that organizations should be budgeting between four 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 or approximately four percent of total spending (considering total cost of ownership, or TCO). TCO 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*⁹, 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.

Exhibit 8.9 provides a comparison of technology spending in the division and its peers. As shown, ACPS was in the mid-range expenditure level when compared to peers with similar ADMs, but well below the peer average. ACPS was also well below the expenditures of neighboring school divisions.

⁸ <http://www.gartner.com/technology/home.jsp>

⁹ <http://www.cgcs.org/cms/lib/DC00001581/Centricity/Domain/81/Managing%20for%20Results%202011.pdf>

Exhibit 8.9
Technology expenditure comparison, 2012-13

Division Names	Technology Expenditure	ADM	Technology Expenditure per ADM
Caroline County	\$ 1,326,701	4,204.0	\$ 316
Carroll County	\$ 1,989,672	4,180.9	\$ 476
Dinwiddie County	\$ 1,901,020	4,436.9	\$ 428
Mecklenburg County	\$ 1,478,539	4,503.4	\$ 328
Pulaski County	\$ 1,908,396	4,361.4	\$ 438
Russell County	\$ 1,707,618	4,094.0	\$ 417
Smyth County	\$ 1,322,992	4,661.6	\$ 284
Wythe County	\$ 1,209,240	4,207.5	\$ 287
Peer Division Average	\$ 1,358,971	4.331.2	\$ 371
Amherst County	\$ 1,358,971	4,177.9	\$ 325
Appomattox County	\$ 1,302,258	2,186.2	\$ 596
Campbell County	\$ 4,542,070	7,994.7	\$ 568
Lynchburg City	\$ 4,013,297	8,100.6	\$ 495
Nelson County	\$ 1,170,461	1,925.0	\$ 608

Source: VDOE Budget Office in response to Prismatic request, 2014.

FINDING 8.5

ACPS has developed an educational technology plan that is aligned with the state-required SOQ and the division's multi-year strategic plan. In a letter dated April 11, 2014 from the Commonwealth of Virginia Department of Education (VDOE), the following two paragraphs were included:

...The Amherst County Public School Technology Plan was developed for 2014-2017. The technology plan has been reviewed by this office and found to be in full alignment with the Educational Technology Plan for Virginia 2010-2015.

The plan, submitted as a requirement of state law, also meets the requirements for the Universal Services Telecommunications Act (E-Rate). Your plan is approved for a two year period beginning 7/1/2014-6/30/2016. As of June 30, 2016 you will need to submit an updated version...

The plan was developed using the state model as a guide. Input was sought from parents, administrators, and teacher surveys. Industry standards were incorporated in the plan. The technology team meets annually or more often when needed to review and evaluate the progress and effectiveness of the strategies. The technology supervisor updates the superintendent and director of academics on a regular basis regarding the ongoing technology projects, schedules, tasks, and administrative and instructional technology challenges.

The VDOE educational technology plan and that of ACPS have a shared vision. The ACPS educational technology vision is as follows:

Technology is an integral part of who we are as a society. From birth, our children are immersed in all forms of technology. As such, technology has

become an integral part of the teaching and learning paradigm. Our goal is to educate students to look beyond today. By facilitating 21st century skills including collaboration, problem solving, and creativity, the school community will utilize technology to enhance instruction and promote life-long thinking, learning, and communication skills necessary for success in a global community.¹⁰

COMMENDATION

ACPS has developed a robust educational technology plan that is aligned with the state-required SOQ and the division's multi-year strategic plan.

FINDING 8.6

There are no dedicated local funds for purchase of additional technology equipment. As technology usage increases so must the availability of the tools. During the interviews and focus groups, the consulting team found that many of the mobile carts have devices that are too old to be upgraded and cannot run some of the instructional software applications selected by teachers. Many of the devices are outdated and run slowly due to lack of adequate resources. This affects the quality of the learning experience for the students. Staff noted that most of the outdated equipment, including the iPods, was purchased with funds on a one-time basis. This equipment will not be replaced, but as teachers increase their technology integration skills, the demands for additional equipment will continue to increase.

The use of equipment owned by the schools is monitored, usually by the librarian who maintains a reservation log allowing school personnel to 'check out' the equipment for teacher and classroom usage. This would include mobile laptop carts, iPods, iPads, as well as computer labs. Other equipment is kept by the technology services department and 'checked out' in much the same manner as is done at the schools. During interviews and focus groups it was stated that there are insufficient mobile carts or labs available and if technology equipment is not reserved weeks, sometimes months in advance, teachers may not get a chance to use it when it is scheduled into a lesson plan.

The proposed 2014-15 technology budget by categories is shown in **Exhibit 8.10** along with budget totals for previous years. As shown, the total technology budget has fluctuated over the years. The budget for technology most directly used by students (classroom instruction) has declined from 2011-12 to 2014-15 while budgeting for the instructional support category has increased by 29.5 percent for 2014-15. Unfortunately, some proposed funding may be reduced due to funding reductions approved by the county board of supervisors. In April 2014 a letter from the superintendent was sent to all employees after the budget meeting informing them that reductions were possible.

¹⁰ ACPS 2010-2016 Educational Technology Plan, Page 6

Exhibit 8.10
ACPS technology budget over time

Technology Category	Actual 2011-12	Actual 2012-13	Budget 2013-14	Budget 2014-15	% Change
Classroom Instruction	\$ 736,216	\$ 712,889	\$ 638,603	\$ 650,740	(11.6%)
Instructional Support	\$ 283,549	\$ 348,333	\$ 353,911	\$ 367,115	29.5%
Administration	\$ 250,947	\$ 267,765	\$ 272,552	\$ 280,790	11.9%
Attendance & Health	\$ 20,646	\$ 22,295	\$ 20,700	\$ 20,700	0.3%
Pupil Transportation	\$ 2,734	\$ 3,302	\$ 7,500	\$ 18,225	566.6%
Operations & Maintenance	\$ 5,999	\$ 2,954	\$ 5,400	\$ 5,400	(10.0%)
Total	\$ 1,300,091	\$ 1,357,537	\$ 1,298,666	\$ 1,342,969	3.3%

Technology Positions	2011-12	2012-13	2013-14	2014-15
Instructional Support				
Teachers	4	4	3	3
Technicians	4	4	4	4
Administration				
Supervisor	1	1	1	1
Clerical	1	1	1	1

Source: ACPS Technology Services Department, March 2014.

A detailed technology replacement schedule was approved and published on pages 28 through 31 of the 2010-2016 educational technology plan. Budget considerations for implementing the plan are represented in summary form by location in **Exhibit 8.11**. As noted in the educational technology plan, this list is by no means exhaustive nor is it a certainty, but serves only to represent what currently meets the needs for implementing the plan for the future. It is important to note that implementation is dependent on the current conditions at the time, on the availability of necessary funding resources, and on emerging technologies.

Exhibit 8.11
Technology replacement totals – VPSA state funds

School	2011-12	2012-13	2013-14	2014-15	2015-16	Site Totals
Amherst County HS	\$ 37,000	\$ 67,000	\$ 122,000	\$ 91,000	\$ 20,000	\$ 437,000
Amherst Ed Ctr	\$ 0	\$ 20,000	\$ 0	\$ 16,000	\$ 15,000	\$ 51,000
Amherst MS	\$ 25,000	\$ 75,000	\$ 0	\$ 15,000	\$ 105,000	\$ 220,000
Monelison MS	\$ 55,000	\$ 53,000	\$ 0	\$ 5,000	\$ 133,000	\$ 246,000
Amelon ES	\$ 50,000	\$ 33,000	\$ 5,000	\$ 27,000	\$ 10,000	\$ 125,000
Amherst ES	\$ 45,000	\$ 33,000	\$ 5,000	\$ 27,000	\$ 10,000	\$ 120,000
Central ES	\$ 43,000	\$ 0	\$ 25,000	\$ 127,000	\$ 10,000	\$ 205,000
Elon ES	\$ 43,000	\$ 0	\$ 25,000	\$ 0	\$ 38,000	\$ 106,000
Madison Heights ES	\$ 43,000	\$ 0	\$ 25,000	\$ 115,000	\$ 47,000	\$ 230,000
Pleasant View ES	\$ 15,000	\$ 0	\$ 50,000	\$ 0	\$ 22,000	\$ 87,000
Temperance ES	\$ 15,000	\$ 0	\$ 50,000	\$ 0	\$ 22,000	\$ 87,000
Division-wide software	\$ 47,000	\$ 47,000	\$ 42,000	\$ 42,000	\$ 42,000	\$ 220,000
Division admin	\$ 0	\$ 50,000	\$ 30,000	\$ 0	\$ 50,000	\$ 130,000
Annual Totals	\$ 418,000	\$ 378,000	\$ 379,000	\$ 565,000	\$ 524,000	\$ 2,264,000

Note: All amounts are pending available funds and emerging technology.

Source: Compiled by Prismatic, May 2014, based on ACPS 2010-2016 Educational Technology Plan.

The technology infrastructure in a division or school provides the foundation upon which all educational and administrative technology efforts must rely. By virtue of its design and functionality, a school's infrastructure largely dictates what is and is not possible for teachers, students, administrators, and parents to do with the equipment they have. Likewise, the number, type, location, and flexibility of technology tools in a school building will either enable or prevent the kinds of integral uses of technology that are described in the research on 21st century learning skills.

The ACPS technology replacement plan is based on a five-to-six year cycle and is monitored by the technology services department. VPSA annual funds of approximately \$330,000 cover 95 percent of the division's replacement cost for equipment and software. This funding can be used to purchase computers, network cabling, switches, laptops, and other devices used in the classroom. Staff noted that replacement of existing equipment is on schedule based on the technology plan. What is not on schedule is providing the much-needed additional equipment to be used by the schools.

The selection of technology tools for a particular learning task must be driven by the goals of the curriculum and an understanding of effective teaching. A similar statement can be made about decisions related to technology infrastructure and access. If, for example, the science curriculum's lab activities call for outdoor/offsite data collection and real-time data analysis, then adequate numbers of laptops or handheld devices are needed. Alternatively, if students need only to be able to type as a final stage of their writing, then a lab of desktop machines may suffice. If a large high school facility needs to be able to simultaneously stream video and allow students to access distance learning courses, then its network must support high bandwidth activities.¹¹

An example of a current need is for additional labs at the elementary schools. Plans are already in place to add at least one lab (20 to 25 computers) at each elementary school and to purchase five individual iPads that will be made available for teacher 'check out.' This is not an ongoing funded purchase.

RECOMMENDATION 8.6

Fund a technology plan that allows for increased technology usage.

ACPS needs to implement a sustainable computer purchase plan and include line items in the budget. The superintendent should annually link division general funds designated for computer purchase to a planned number of computers to be added. The same process can be used for other computer-related equipment, such as printers. The division should continue the cost saving approach used by technology services to refurbish computers and make them available for less high-volume use, such as an extra computer in the library for use by school bus drivers to check work email or field trip assignments.

FISCAL IMPACT

The fiscal impact of this recommendation will depend upon the plan and the number and type of devices needed. The average computer unit price is \$800 and a mobile cart or lab has a minimum of 25 units, so the base price to fund one mobile cart would be \$20,000. At minimum, the plan could designate funds for one mobile lab or other equipment each year.

¹¹ <http://sun-associates.com/tlresources.html>

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Budget for increased technology usage.	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)

E. Technology Policies and Procedures

Having policies and procedures is essential for any department to be effective and in compliance with state and federal regulations or laws. Divisions need clear policies and procedures to guide their often large technology purchases and to support effective and acceptable use of those resources.

FINDING 8.7

There is no formal system documentation in the technology department for in-house written programs or procedures. Technical manuals and vendor references are provided for ACPS-purchased software but in-house developed applications and procedures are not formally documented. An example would be the purchase order (requisition) application accessed by technology services.

The structure of the department is such that the three computer technicians each have their own area of support, primarily by building location or the network infrastructure. There has been limited cross-training of staff, and there is no document that would allow an individual to assume full control of several mission-critical functions. Additionally, there is no helpdesk 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 on the Internet 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.

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.

A number of free tools are available online that can be used to create documentation standards.¹² Spiceworks also has a sample tool that could be used to develop such standards.

RECOMMENDATION 8.7

Create standard operation procedures for mission critical areas in technology.

The technology services supervisor should oversee development of procedures for all areas, including system backup, the processes for acquiring computer equipment, and software,

¹² <http://www.thefreecountry.com/programming/helpauthoring.shtml>

email, and user account creation. Once documented, all staff in the department should cross-train using the procedures.

FISCAL IMPACT

The technology services supervisor and technology staff can implement this recommendation as part of their regular duties. It should take no more than three to five hours per week over a period of several months. The amount of time necessary will vary depending on the topic, experience level of the technician, available information, and whether the topic is complex or simple. Once the documentation template has been established and the existing procedures completed, the documentation time for new topics should be reduced.

FINDING 8.8

The division does not have a comprehensive 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 services department and the information systems manager (ISM). For example, the servers run daily backups to external drives and according to interviews, student data are backed up three times a week, also to external drives. The PowerSchool ISM runs a daily backup of key files to an on-site backup external disk. The central network hub has a generator for the servers and the school servers are on a battery backup. Most other backups including the multiple spreadsheets used by central office personnel, standalone system data, and teacher 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 8.12** defines the process of developing an effective disaster recovery plan.

Exhibit 8.12
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 offsite 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 reestablish 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 the system.

Source: National Center for Education Statistics, "Safeguarding Your Technology," April 2003.

RECOMMENDATION 8.8

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, ACPS should first establish a disaster recovery planning team. During the planning process, the team 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 plan development should be made available through an annual capital improvement budget. The specific amount needed will depend on the recovery supports selected, but should range from \$22,000 to \$50,000.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Develop disaster recovery plan.	(\$50,000)	\$0	\$0	\$0	\$0

F. 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.

The ACPS infrastructure platforms and operating systems are as follows:

- Windows XP Pro
- Windows Vista Business
- Windows 7 Pro
- Server 2003 Standard



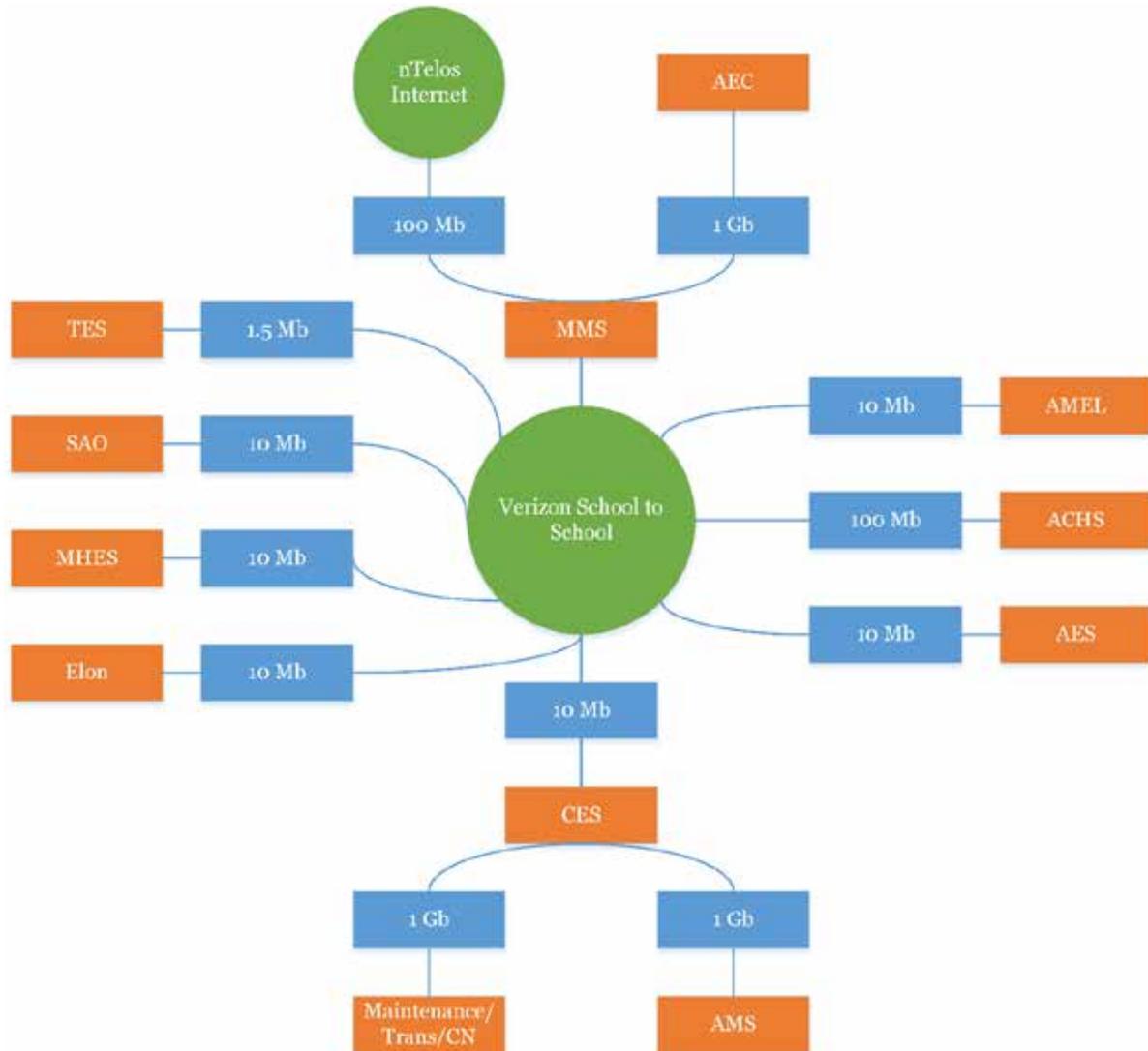
- Server 2003 R2
- Server 2008 Standard
- Server 2008 R2
- OS X 10.7-9; and
- iOS 5-7.

ACPS uses Verizon for all school-to-school wide area network (WAN) connections. The high school has the highest bandwidth at a 100-megabit (100 Mb) connection. Temperance Elementary has the lowest network bandwidth with the only T1, 1.5 Mb connection. Most of the schools each have a 10 Mb connection. The connections come back to the “center” of the network located at Monelison Middle School. The ACPS WAN network is shown in **Exhibit 8.13**.

Enterprise level Cisco switches and routers are used for the local area networks (LAN). ACPS primarily uses 3560 switches at 100 Mb interfaces, but plans are to move to 3750s with 1,000 Mb interfaces as each school is upgraded. The high school and one elementary school have been upgraded to 3750s. The 2014-15 technology plan includes an upgrade of two additional elementary schools next year.

ACPS uses nTelos for the 100 Mb network connection to the Internet for both up and down data transmission. All 11 schools have building-wide wireless Wi-Fi supported by Aruba Network Solutions. There are eight controllers and 130 access points.

**Exhibit 8.13
ACPS network diagram**



Source: ACPS Technology Services Department, March 2014.

FINDING 8.9

Bandwidth is critically insufficient at three schools: Amherst Middle, Central Elementary, and Temperance Elementary. In addition, aging infrastructure exists at most locations including elementary schools Madison Heights, Temperance, and Central.

The State Educational Technology Directors Association (SETDA)¹³ has set two targets for broadband in schools:¹⁴

- *By 2014-15, all schools should have an external Internet connection of at least 100 Mbps per 1,000 students/staff; by 2017-18, they should have at least 1 Gbps per 1,000 students/staff.*
- *By 2014-15, internal WAN connections—from the district to each school and among schools in the district—should be at least 1 Gbps per 1,000 students/staff; by 2017-18, they should be at least 10 Gbps per 1,000 students/staff.*

In making this shift, educators should consider five factors:

1. *The infrastructure/broadband must come first, both in and out of school.*
2. *The devices schools adopt should be flexible, taking into account their multiple uses by various populations with different needs. Broader deployments will require districts to consider enterprise management and address whether the rollouts of new technology can be centralized.*
3. *Districts must consider integration and interoperability with new software and applications.*
4. *Instructional and technical support is essential.*
5. *The shift must be integrated into long-range planning, budgeting, and policies.*

SETDA is a 501(c) (3) not-for-profit membership association launched by state education agency leaders in 2001 to serve, support, and represent their emerging interests and needs with respect to the use of technology for teaching, learning, and school operations.¹⁵

Bandwidth requirements vary from one network to another and one school to another depending on factors such as Internet activities, number of users, infrastructure, distance, etc. Determining how many bits per second travel across the network and the amount of bandwidth needed to meet the needs of the users is not an easy task. There are multiple calculators and tools available to assist, but many school divisions are preparing for current and future needs using the SETDA targets as a guide. **Exhibit 8.14** shows the SETDA bandwidth targets in thousand bits per second (kbps) per student.

¹³ www.setda.org

¹⁴ www.doe.virginia.gov/support/technology/technology_initiatives/e-learning_backpack/institute/2013/executive_summary.docx

¹⁵ <http://www.setda.org/about/>

Exhibit 8.14
State Educational Technology Directors Association (SETDA)
Standards for Digital Learning

Category	Bandwidth	Example Activities
Technology Rich	100+ kbps/student	<ul style="list-style-type: none"> · Full 1:1 · Media-rich content · Robust web-based projects/courses, student management, and conferencing
Emerging Reliance	50-100 kbps/student	<ul style="list-style-type: none"> · Implementation of partial 1:1 · Dynamic content/streaming video, web projects · Web-based office/student management
Basic Connectivity	10-50 kbps/student	<ul style="list-style-type: none"> · Rotational computer lab · Basic online research and e-mail activities
Pre-Basic	<10 kbps/student	<ul style="list-style-type: none"> · Basic activities, limited by bandwidth

Source: Virginia Department of Education, Division of Policy and Communication Information Brief, February 2014.

Madison Heights, Temperance, and Central need network infrastructure upgrades now. In interviews it was noted that at these schools ACPS network communication was sometimes 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 mentioned were Internet speed, loss of connections, and slow response time. The elementary schools seem to experience connection problems more often than the secondary schools.

Bandwidth in the schools is insufficient with Amherst Middle and Central Elementary being reported as those most critically in need of an upgrade. It should be noted that these two schools share the same Internet connection. During the interviews it was stated that VPSA state funds cannot be used to purchase increased bandwidth and there are no local funds available for this upgrade. The contract with Verizon is still in effect and the vendor is unwilling at this time to offer a reduction in price for ACPS to increase the bandwidth from 10 Mb to 100 Mb at the impaired schools. Annually, ACPS pays Verizon \$150,000 per year for the connections, which includes \$1,800 per month for each of the two schools. Verizon has quoted a price of \$3,600 per month per school to increase the bandwidth from 10 Mb to 100 Mb at Amherst Middle and Central Elementary. Replacing the T1 line at Temperance Elementary with a 10 Mb connection is not feasible due to the high cost of construction and line replacement.

Madison Heights and Central Elementary both qualify for a grant secured by ACPS technology that will cover approximately 90 percent of the cost of refreshing the network infrastructure components. These components would increase the speed of the switches and improve the wireless access to the Internet.

RECOMMENDATION 8.9

Refresh network infrastructure equipment at Madison Heights and Central.

Aging infrastructure in some schools and symptoms that the division's bandwidth cannot handle the network demand were identified as problems during the onsite interviews. The ACPS technology plan includes steps to begin correcting the infrastructure of two of the most critical schools (Madison Heights and Central Elementary Schools) primarily using one-time targeted grant funds. It was learned during the onsite interviews that funding is not available to increase the network bandwidth. The quote from the current vendor would almost double the monthly cost for each school if the bandwidth was increased from 10Mbps to 100Mbps at the current rate.

With the use of technology increasing dramatically in classrooms and on school campuses nationwide, it is not surprising that 80 percent of school divisions report that their broadband connections do not meet their current needs, according to an FCC report, *Measuring Broadband America*. The majority (55 percent) cite slow connection speed; other barriers include the cost of service (39 percent) and installation (27 percent).¹⁶ Cost of service was recently addressed by Virginia governor Terry McAuliffe.

The division should use grant funds to purchase and install all new switches at Madison Heights Elementary and Central Elementary to upgrade the ports from 100 Mb to 1,000 Mb. The division should then improve wireless coverage by installing all new controllers and access points for Madison Heights Elementary and Central Elementary. This would address the concerns raised during the interviews regarding intermittent loss of network access and slow response time.

FISCAL IMPACT

ACPS technology services provided the consulting team with estimates received from Cisco and Aruba network vendors. The grant funds will cover approximately 90 percent of the Cisco (\$117,237) and Aruba (\$66,083) quotes leaving ACPS with \$15,000 to \$16,000 out of pocket expenses for the two schools. During interviews it was learned that due to the size of Temperance Elementary, the infrastructure components for this small elementary school could possibly be replaced using existing equipment and funds.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Purchase new Cisco switches for MHES and CES.	(\$16,000)	\$0	\$0	\$0	\$0
Purchase new Aruba access points and controllers at MHES and CES.	(\$16,000)	\$0	\$0	\$0	\$0
TOTAL	(\$32,000)	\$0	\$0	\$0	\$0

G. Technical Support and Help Desk Operations

The ACPS service desk uses a three-tiered level of support. Computer technicians are the first level of support. If they cannot resolve the request or the issue, it is escalated to level 2 support, which is provided by the technology supervisor. If he cannot address the issue, the

¹⁶ <http://www.scholastic.com/browse/article.jsp?id=3757597>

level 3 vendor support will attempt to resolve the issue. Very few helpdesk tickets are referred to the vendor.

FINDING 8.10

ACPS uses a work order application written in-house to submit help desk requests. The software application was combined with open source code to provide the needed helpdesk functionality. It shows work order tickets by ID number, location, by technician, or ticket status (completed, pending). The help desk system used by ACPS is accessible via the web site and serves as the 'service desk' for the day-to-day technology liaison between ACPS teachers, administrators, central office staff, school board members, and technical support.

When a user submits a work order it is reviewed by a designated 'approver' at each location before the system automatically sends it to technology services. The technology supervisor or his designee assigns the ticket to the appropriate computer technician so that it can be completed and updated on the system. The system also updates the originator of the ticket upon completion. Through interviews it was learned that analysis is not formally done, but group discussions and staff collaboration are encouraged and are working well.

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 technology department staff is commended for the support they provide to the users.

This chapter presents the findings, commendations, and recommendations regarding the operations of the school nutrition program in Amherst County Public Schools (ACPS). 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
- H. Purchasing and Warehousing

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.

ACPS participates in the NSLP, the School Breakfast Program (SBP), Afterschool Snack Program, 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 ACPS 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.

Sample trays of student-selected meals in ACPS are shown in **Exhibits 9.2** through **9.5**.

- ACPS has closed campuses at all schools during meal times and accommodates all students with enough seating and adequate time to eat.
- ACPS has an exceptional preventive maintenance program for kitchen equipment.
- The division has the necessary technology infrastructure in place to support the kitchens and lunchrooms.
- The child nutrition department uses student Nutrition Advisory Council (NAC) groups to provide feedback on the meals program and educate students on nutrition and good health.
- The child nutrition department uses two walk-in freezers to accommodate storage of USDA commodities until they are needed for meal production in school kitchens. This decision has resulted in cost savings and efficiencies in ordering and inventory.

The consulting team also made nine recommendations in this chapter:

- Increase the division's food service productivity.
- Review the job responsibilities of the administrative assistant and update the position description.
- Charge the school nutrition department indirect costs at the restricted rate.
- Reduce child nutrition costs at Pleasant View and Temperance Elementary Schools.
- Pay the cost of operating the division vehicle used by the maintenance/delivery person for school nutrition program functions from the child nutrition fund.
- Prepare monthly financial reports for each school site.
- Develop a database of all equipment in the kitchens by type, age, frequency of repair, and condition.
- Develop strategies to increase the number of students completing applications for free and reduced-price meals.
- Develop strategies for increasing student participation rates, focusing first on breakfast.

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		2014-15	2015-16	2016-17	2017-18	2018-19	Total
9.1	Improve food service productivity.	\$15,640	\$31,280	\$31,280	\$31,280	\$31,280	\$140,760
9.6	Charge program for indirect costs at restricted rate.	\$88,833	\$88,833	\$88,833	\$88,833	\$88,833	\$444,165
9.7	Eliminate 5.5 labor hours each at Pleasant View and Temperance.	\$22,263	\$22,263	\$22,263	\$22,263	\$22,263	\$111,315
9.8	Charge program for costs to operate the delivery vehicle.	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$15,000
9.13	Improve meal application returns.	\$50,591	\$50,591	\$50,591	\$50,591	\$50,591	\$252,955
9.14	Increase student meal participation.	\$0	\$22,278	\$44,556	\$66,834	\$66,834	\$200,502

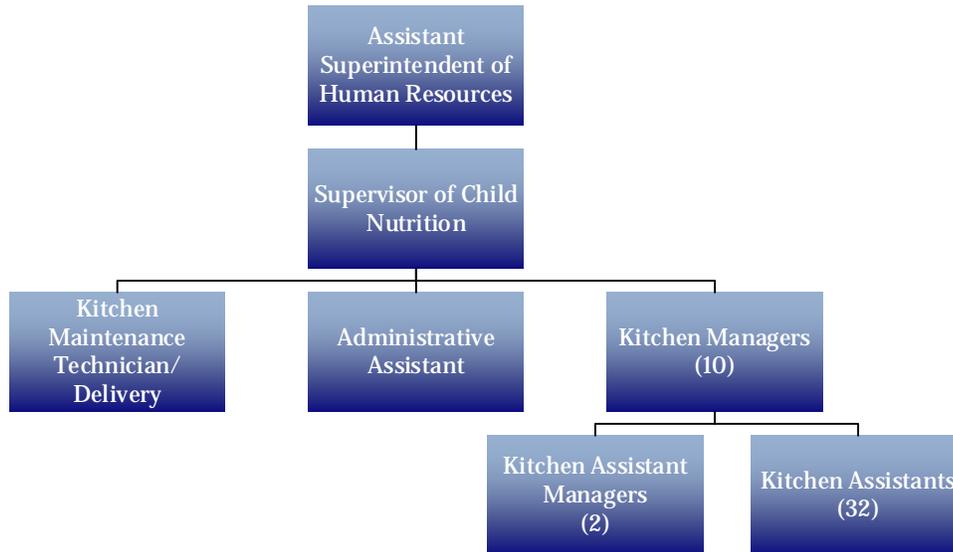
A. Organization and Staffing

The cost of staffing is typically about 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.

ACPS offers breakfast and lunch meals to students in all of its schools, as well as afterschool snacks to students at Madison Heights Elementary and Amelon Elementary. There is a fresh fruit and vegetable program at Madison Heights Elementary and Central Elementary. To perform the duties required to implement these programs, the department is organized as shown in **Exhibit 9.6**. The supervisor of child nutrition manages two central office employees – an administrative assistant and a maintenance/delivery person.

Each school has a kitchen manager who works 7.5 hours per day and reports to the local school principal and the child nutrition supervisor. Two assistant managers also work 7.5 hours each day. General school kitchen assistants work between four and seven hours per day, depending on the school and work assignment.

**Exhibit 9.6
Child nutrition organization**



Source: ACPS, April 2014.

FINDING 9.1

The ACPS school nutrition program lacks a staffing plan that establishes staffing levels based upon industry best standards for cafeteria staffing. In addition, the department’s productivity levels are at the low end of the Virginia Department of Education (VDOE) School Nutrition Program (SNP) suggested goals.

The most common means of measuring employee productivity in school nutrition programs 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. The VDOE 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.

The MPLH per school is determined by dividing the total daily meal equivalents by the total daily labor hours at each school. Industry best practice guidelines for MPLH staffing are shown in **Exhibit 9.7**. This chart provides MPLH guidelines for both conventional and convenience systems of food preparation. Conventional systems use raw ingredients in meal preparation. Convenience systems use a large amount of processed food items such as bakery breads, precooked entrees, and disposable service ware.

Exhibit 9.7
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 number of hours that are necessary to deliver each school's daily meal equivalents at a low level of productivity is calculated, and that school's actual daily labor hours are subtracted from the results to arrive at a labor hour variance for each school. The labor hour variance indicates either the number of excess daily labor hours per school (negative numbers), or additional labor hours necessary to meet the standard (positive numbers). The following formulas are used to calculate this:

- $Daily\ Meal\ Equivalents \div Standard\ MPLH = Standard\ (Low)\ Labor\ Hours$
- $Standard\ (Low)\ Labor\ Hours - BCPS\ Daily\ Labor\ Hours = Labor\ Hours\ Variance$

Exhibit 9.8 compares ACPS MPLH by school to the national standard. For comparison purposes, as the kitchens in ACPS are part convenience and part conventional in their recipes and products used, the industry standard for high productivity conventional system was used. The VDOE SNP has established a range of 14 to 20 meals per labor hour goal.

Exhibit 9.8
ACPS Meals per Labor Hour Compared to National Standards

Schools	Meal Equivalents	Daily Labor	MPLH	Standard MPLH	Variance
Amherst HS	981	58.5	16.8	21	(4.2)
Amherst MS	383	25.5	15.0	16	(1.0)
Monelison MS	559	36.0	15.5	17	(1.5)
Amelon ES	504	26.5	19.0	17	2.0
Amherst ES	273	21.0	13.0	15	(2.0)
Central ES	424	25.5	16.6	17	(0.4)
Elon ES	287	20.5	14.0	15	(1.0)
Madison Heights ES	582	36.0	16.2	17	(0.8)
Pleasant View ES	73	14.0	5.2	10	(4.8)
Temperance ES	103	14.0	7.4	11	(3.6)
Excess Labor Hours Division-wide					(17.3)

Source: ACPS school nutrition department, April 2014.

Productivity in all but one of ACPS school nutrition operations falls below industry standards. When more meals are produced in an hour, the labor cost for each meal is reduced. Three ACPS schools do not fall within the range of the VDOE SNP standards of 14 to 20 MPLH. In total, there is a division-wide excess of 17.3 daily labor hours.

RECOMMENDATION 9.1

Increase the division’s food service productivity.

There are 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 the industry standard, or decrease the number of staff hours worked daily by adjusting work schedules.
- Increase the number of meal equivalents – the division would need to implement measures to increase participation. Unless the food services staff is feeding all of the students, faculty, and staff 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 this also offers additional benefits. Student behavior and attitudes toward the food service program often improve when faculty participation improves.
- Increase marketing efforts – this should also increase sales. This may include ongoing, regular activities throughout the school year, as well as special events. Without marketing, parents and students are unaware of the benefits and opportunities of the breakfast and lunch programs, causing participation in these programs to suffer. 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, ACPS would need to reduce daily cafeteria labor hours by 17. Assuming 184 operating days and \$10.00 per labor hour, implementing this recommendation can generate an annual savings of \$31,280. Savings are shown scaled in over two years. 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.	\$15,640	\$31,280	\$31,280	\$31,280	\$31,280

FINDING 9.2

The position description of the administrative assistant does not accurately reflect the actual duties performed in the child nutrition department. The position description lists, as a general definition of work, the following duties: receiving and processing incoming calls and visitors, preparing and maintaining manual and computerized files and records, and preparing reports. Additional essential functions not included on the position description performed by the assistant include financial duties and point-of-service (computer terminal) troubleshooting and training. Duties also include interaction with the division and county treasurer as well as reconciliation of bank deposits. This position also manages the USDA commodity program, which requires a high degree of accountability.

Often, positions in child nutrition programs are unique and include duties not typical in a school setting. This typically results in a need for modified job titles and job descriptions.

RECOMMENDATION 9.2

Review the job responsibilities of the administrative assistant and update the position description.

The position description of the administrative assistant does not include all duties performed by this staff person. Once it is reviewed and updated, the ACPS chief financial officer and child nutrition supervisor should work together to determine the most appropriate pay classification.

FISCAL IMPACT

A review of the job description will determine if this position will be upgraded with an accompanying salary increase. The chief financial officer, child nutrition supervisor, and administrative assistant will likely need to spend no more than 10 hours reviewing and updating the job description.

FINDING 9.3

The supervisor of child nutrition places a high priority on program staff attaining certification with the School Nutrition Association (SNA). As an incentive, an annual stipend of \$225 per person is paid to those employees who maintain their certification. Currently 33 of the 45 Amherst child nutrition employees have attained

certification. The supervisor provides training classes and opportunities for child nutrition staff to meet the initial requirements as well as maintain their certification.

SNA's certification program is recognized as a leader in the child nutrition industry. Members must meet certain academic requirements and core educational training requirements to become certified and then complete a required amount of CEUs during their annual certification period.

COMMENDATION

The child nutrition supervisor understands the importance of training and certification for child nutrition program staff and encourages her staff to become certified with SNA by providing a financial incentive and opportunities to maintain certification status.

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 9.4

ACPS child nutrition maintains an online policy, procedures, and information manual called 'Chewie.' Staff members depend upon this online data source and regularly utilize the information in the operation of the program at the school level.

School nutrition is a highly visible school operation to both students and the community, and it generates and spends a substantial amount of money annually. 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 includes as a best practice that "written policies and procedures address key topics of operations and are implemented to ensure effective operation of the school nutrition program."¹

The child nutrition department uses 'Chewie' for guidance on a variety of items. Their use of it includes:

- posting forms, checklists, and documentation procedures;
- guidance on allergies and milk substitution;
- collection procedures;

¹ School Nutrition Association. *Keys to Excellence: Standards of Practice for Nutrition Integrity*, National Harbor, Maryland, 2012. Retrieved from <http://www.schoolnutrition.org/CareerEducation.aspx>

- HR and benefits information; and
- preloading production records and menus.

The online manual is used as both a procedures guide as well as an information source. The manual could be enhanced by including more procedures and policies to serve as a guide for staff. **Appendix D** shows various additional categories to consider adding to 'Chewie' to provide a greater emphasis on policy and procedures.

COMMENDATION

The child nutrition department has a policy, procedure, and information manual that is online and updated frequently.

FINDING 9.5

All schools in ACPS have closed campuses during mealtimes. Although no formal board policy exists, it is an established practice among all schools. Closed campus policies encourage increased meal participation and healthier eating habits.

The consulting team visited all schools during a meal service and observed that all lunchrooms had enough seats for the students in the meal period. In all schools except one, 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.

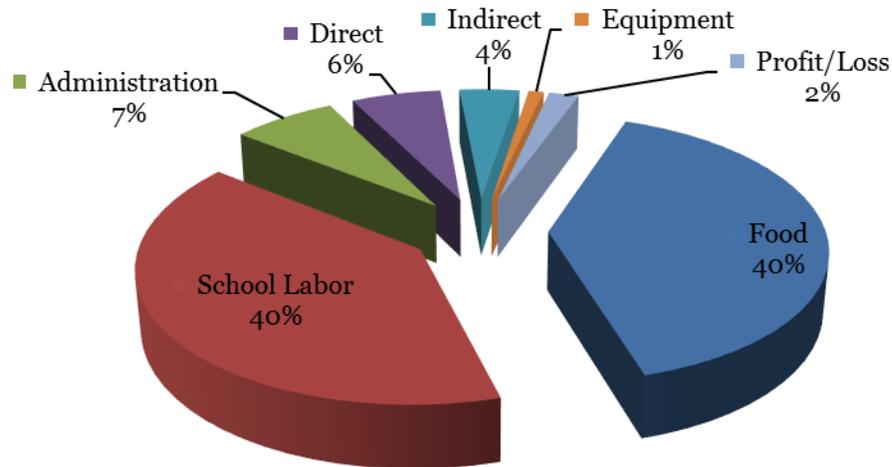
COMMENDATION

ACPS has closed campuses at all schools during meal times and accommodates all students with enough seating and adequate time to eat.

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 they are appealing to local student tastes so participation levels remain high. The NFSMI recommends an ideal breakdown of expenditures (**Exhibit 9.9**) 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 9.9
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 and that include 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. School nutrition programs must demonstrate sound financial management practices to ensure the program remains viable and meets the nutritional need of students.

FINDING 9.6

ACPS is not charging the child nutrition department for indirect costs. Federal guidelines permit the allocation of certain indirect costs to be transferred from the food service fund to the general fund. Indirect costs are incurred for the benefit of multiple programs and typically support administrative overhead functions. If a department is charged for indirect costs, there are rules for apportioning such charges using an established indirect cost rate and a documented methodology that accurately allocates such indirect costs.

Guidance from USDA regarding the application of indirect costs to school food service operations can be found in *Indirect Costs – Guidance for State Agencies and School Food Authorities*, published in 2011. It states that the school division may bill the school food service at the unrestricted rate but some divisions have opted to support the food service by billing at the restricted rate, which is lower. ACPS’s approved indirect cost rates for 2013-14 are 4.2 percent for restricted and 15.1 percent for unrestricted.

Federal regulations allow three months of operating costs to be accrued as a fund balance for school nutrition programs. Commonwealth reports indicate the ACPS child nutrition department had an average of 2.15 months of operating balance available at the end of the 2011-12 school year. Historical data indicates the department’s financial position has remained stable for four years and projections suggest this pattern will continue (**Exhibit**

9.10). This healthy fund balance indicates that the department is capable of paying the allowable indirect costs to the general fund.

**Exhibit 9.10
Child nutrition department financial position**

School Year	Number of Months Operating Balance Available	Gross Profit/Loss
2010-2011	2.08	\$ \$59,436
2011-2012	2.15	\$ \$68,544
2012-2013	2.00	\$ \$(16,758)*
2013-2014 (YTD)	2.39	\$ \$78,573

*accounts receivable for report period is missing data
Source: ACPS child nutrition department SNP020, 2014.

RECOMMENDATION 9.6

Charge the school nutrition department indirect costs at the restricted rate.

The school nutrition department should begin paying indirect costs at the allowable restricted rate of 4.2 percent in 2014-15. Based on 2012-13 school nutrition expenditures of \$2,115,072, this would result in a contribution to the ACPS general fund of \$88,833. The division should assess the impact of this new charge on the school nutrition fund balance after using this rate for several years and determine if the unrestricted rate could be used instead.

FISCAL IMPACT

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Charge school nutrition program for indirect costs at the restricted rate.	\$88,833	\$88,833	\$88,833	\$88,833	\$88,833

FINDING 9.7

Pleasant View and Temperance kitchens are operating at a loss. Food and labor costs are extremely high and are greater than the average of the other cafeterias in the division. An important measurement of program efficiency is the analysis of operational cost category percentages to total revenue. This calculation results in an operating ratio for each expenditure category. The total of operating ratios for all expenditure categories must be 100 to break even. Over 100 means there are more expenditures than revenue. Less than 100 means revenue exceeds expenditures. **Exhibit 9.11** shows the financial status of all the school kitchens.

The chart includes averages computed without the data from Pleasant View and Temperance. These averages are more reflective of the division's typical operations, as the food and labor costs for Pleasant View and Temperance are dramatically greater than all the other school kitchen operations.



Exhibit 9.11
Kitchen financial status by school, 2013-14 (through April 21, 2014)

Schools	Total Revenue	Cost as Percent of Total Revenue				
		Profit or Loss	Food Cost %	Labor Cost %	Other Cost %	Total
Amherst HS	\$ 358,105	\$ 69,663	50%	25%	6%	81%
Amherst MS	\$ 143,582	\$ (6,663)	48%	34%	23%	105%
Monelison MS	\$ 224,318	\$ 49,728	43%	28%	6%	78%
Amelon ES	\$ 192,518	\$ 55,731	43%	23%	5%	71%
Amherst ES	\$ 101,292	\$ 5,058	50%	39%	6%	95%
Central ES	\$ 166,717	\$ 35,762	47%	27%	5%	79%
Elon ES	\$ 99,152	\$ (942)	54%	39%	9%	101%
Madison Heights ES	\$ 242,034	\$ 25,560	48%	26%	16%	89%
Pleasant View ES	\$ 27,583	\$ (15,685)	62%	79%	15%	157%
Temperance ES	\$ 35,287	\$ (21,323)	57%	85%	19%	160%
Total (all schools)	\$ 1,590,588	\$ 78,573	48%	38%	10%	95%
Total (w/o Pleasant View & Temperance)	\$ 1,527,718	\$ 216,896	51%	39%	10%	92%

Source: ACPS child nutrition department, April 2014.

Food costs for Pleasant View and Temperance are exceptionally high and are not warranted for the number of meals they are serving. Excessive food costs could be due to several factors such as portion sizes that exceed standards, waste in production and service, theft, inaccurate inventory practices, not using standardized recipes, a high level of discarded food, and overproduction. The child nutrition department has tried to reduce inventory waste and production time by offering fewer entrée choices at Pleasant View and Temperance than what is offered at all other elementary schools, but this has not completely corrected the problem.

Labor costs are also extremely high in these two schools. Meals per labor hour (MPLH) is the calculation that determines the number of meals served per hour of labor assigned to the kitchen. The VDOE SNP has established a goal of 14-20 MPLH for school kitchens. The average MPLH in ACPS, without including Pleasant View and Temperance, is 15.8. Pleasant View's MPLH is 5.2 and Temperance's MPLH is 7.4. There are two paths to a higher MPLH – decrease labor hours or increase participation.

Both schools are feeding 65 - 67 percent of their average daily membership (ADM) at lunch and 36 percent of ADM at breakfast. There are opportunities in both schools to increase breakfast meal counts, a la carte revenue, and adult meal participation. All of these would have a positive impact on MPLH and the overall financial picture. However, if every student ate breakfast and lunch, which is unrealistic, they still would be unable to meet the targeted goal for MPLH. The only viable solution is to decrease labor hours. Lunch meal service requires two people to perform the functions of serving and cashiering. It is difficult to find an employee who only wants to work one hour at lunchtime, which is all both operations need; so instead, many child nutrition departments hire an employee for the minimum allowable hours (usually four hours).

A solution tried in many divisions is job sharing. Bus drivers, teacher aides, or clerical staff help during lunch meal service, allowing the child nutrition department to staff just one food service person to prepare, help serve, clean up, and perform bookwork duties. Another potential solution is using a parent to help with lunch meal service.

RECOMMENDATION 9.7

Reduce child nutrition costs at Pleasant View and Temperance Elementary Schools.

Once the division has determined the causes of high food costs, a process and an implementation plan should be developed to reverse these losses. Then, the child nutrition supervisor should eliminate the second staff person who works 6.5 hours and replace with a one-hour person at each school.

FISCAL IMPACT

Actual savings on food costs will depend upon the results of an analysis that can be performed by the child nutrition supervisor. This analysis can be completed without additional resources. Savings on labor costs was calculated using a mid-range salary of \$10.94 per hour x 5.5 hours x 185 days x 2 schools.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Eliminate 5.5 labor hours each at Pleasant View and Temperance.	\$22,263	\$22,263	\$22,263	\$22,263	\$22,263

FINDING 9.8

The child nutrition department is not paying the costs of the vehicle used by the maintenance technician/delivery staff person who performs duties for food services. The vehicle receives fuel at the pumps located at the bus garage, and maintenance costs to service the vehicle are provided by mechanics at the transportation department.

One employee in the child nutrition department is assigned to the position of general kitchen maintenance technician/delivery. In order to perform the essential functions of this position, the staff person uses a division vehicle to make deliveries of food and supplies to school kitchens. In addition, he travels to individual schools to perform maintenance on kitchen equipment. Costs to operate this vehicle, such as gas and supplies, are not charged to the child nutrition department. Costs are incurred by the transportation department.

RECOMMENDATION 9.8

Pay the cost of operating the division vehicle used by the maintenance/delivery person for school nutrition program functions from the child nutrition fund.

A determination of costs should be calculated on a monthly basis by the transportation department and billed to the child nutrition department. The child nutrition department should then reimburse the appropriate amount to the transportation department. Actual costs through April 2014 for school year 2013-14 were \$1,767 for fuel and \$396 for supplies.

FISCAL IMPACT

Projections for the 11 months the employee works are approximately \$3,000 per year.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Charge child nutrition program for the costs to operate the delivery vehicle.	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000

FINDING 9.9

ACPS cafeteria managers are not receiving sufficient information about the financial status of their operation. A report is prepared showing financial data tabulated by individual school kitchen. Data includes a breakdown of revenue and expenditures, operating ratios, and meals per labor hour (MPLH). These data are not produced into individual school kitchen reports, and the information is not distributed to managers on a regular basis.

The majority of managers reported they do not know how their program is doing financially and do not know their MPLH. During interviews, when asked the question “Do you know how your operation is doing financially?”, a few managers said the supervisor does tell them generally how they are doing. However, most said they do not know the financial status of their operation. When asked the question “Do you know the MPLH for your kitchen?”, seven of the 10 managers did not. Most stated they did not know how to perform the MPLH calculations on their own.

NFSMI recommends preparing and distributing site-level performance reports in their class *Financial Management: A Course for School Nutrition Directors*.² *The Keys to Excellence*, SNA’s self-assessment tool, includes the following best practices and indicators:

- A Statement of Revenue and Expenditures (Profit and Loss Statement) is prepared on a monthly basis for the department level and for each serving site.
- School nutrition site-level Statement of Revenue and Expenditures are distributed.
- School nutrition personnel at the school site level receive training on controlling costs and revenue generation.
- School nutrition personnel at the school site level are encouraged to develop and implement practices to increase revenue and control costs.³

One cafeteria-level report distributed by another school division is shown in **Exhibit 9.12**. This sample provides a variety of data, including financial and performance data, in a format that is easy to read and understand. Additional sample reports can be found in the NFSMI financial management class materials.

² <http://www.nfsmi.org/ResourceOverview.aspx?ID=63>

³ <http://www.schoolnutrition.org/Content.aspx?id=20206>

**Exhibit 9.12
Sample monthly cafeteria report**

Revenue:		Current Month	Year to Date
Meal Revenue		\$2,411.40	
Supplemental Sales		\$1,648.90	
Other Revenue		\$75.34	
Total Reimbursement		\$15,061.75	
TOTAL REVENUE:		\$19,197.39	\$139,903.44

Expenses:		Current Month	Year to Date
<i>Inventory/Food Cost</i>			
Beginning Inventory		\$5,973.00	
Purchases		\$7,167.00	
Transfers		(\$70.00)	
Ending Inventory		\$5,932.00	
<i>Total Food Usage:</i>		<i>\$7,138.00</i>	<i>\$51,686.00</i>
<i>Inventory/Supply Cost</i>			
Beginning Inventory		\$1,413.00	
Purchases		\$753.00	
Transfers		\$311.00	
Ending Inventory		\$1,564.00	
<i>Total Supply Usage:</i>		<i>\$913.00</i>	<i>\$6,618.00</i>
Labor Costs			
School Staff		\$8,186.19	
Temporary Labor		\$0.00	
<i>Total Labor:</i>		<i>\$8,186.19</i>	<i>\$67,638.24</i>
Overhead		(\$108.37)	\$6,207.11
TOTAL EXPENSES:		\$16,128.82	\$132,149.35
GAIN or (LOSS):		\$3,068.57	\$7,754.09
% GAIN or (LOSS):		15.98%	5.54%

Supervisor Comments/Suggestions:

Percent of Revenue			
	Total Cost	% of Total Revenue	Goal Less Than
Food	\$7,138.00	37.18%	40%
Supplies	\$913.00	4.76%	5%
Labor	\$8,186.19	42.64%	40%
Overhead	(\$108.37)	-0.56%	7%
Total Cost	\$16,128.82	84.02%	92%

Total Meal Equivalents Per Day	
Total Breakfasts:	56
Total Lunches:	264
Supplemental Sales:	36
Total Meal Equivalents:	357

% of Eligible Meals Served			
Average Daily Attendance:		426	
	# Eligible	% Served	Goal
Free	223	85.67%	
Reduced	14	88.72%	
Paid	219	26.56%	

Current Month Plate Cost			
	Total School Cost	Cost Per ME	Goal
Food	\$7,138.00	\$1.05	\$1.08
Supplies	\$913.00	\$0.13	\$.13
Labor	\$8,186.19	\$1.38	\$1.08
Overhead	(\$108.37)	(\$0.02)	\$.19
Total Cost	\$16,128.82	\$2.55	\$2.48

YTD Plate Cost			
	Total School Cost	Cost Per ME	Goal
Food	\$51,686.00	\$1.05	\$1.08
Supplies	\$6,618.00	\$0.13	\$.13
Labor	\$67,638.24	\$1.37	\$1.08
Overhead	\$6,207.11	\$0.12	\$.19
Total Cost	\$132,149.35	\$2.67	\$2.48

Source: Prismatic files, December 2013.

RECOMMENDATION 9.9

Prepare monthly financial reports for each school site.

Using data currently collected on a monthly basis, individual reports can be generated for each school showing financial activity for past month. These individual monthly reports can be distributed to managers showing fiscal data for their operation. Managers can be trained on how to interpret the data and use it for program improvement.

FISCAL IMPACT

This will not require extra resources or data and can be completed by the department administrative assistant. It is estimated that less than four hours of time will be needed to develop the template for the reports, which can then be filled for each school, each month.

D. Management and Facility Operations

School nutrition facilities must be well maintained, cleaned, and repaired. Deferred maintenance should not be tolerated. These facilities 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 timesaving food preparation equipment. A further key element in long-term financial stability within a child nutrition program is adequate and proper maintenance of that equipment as well as timely replacement and upgrading as warranted.

FINDING 9.10

Maintenance of kitchen equipment is exceptional. The child nutrition department employs one staff person who frequently performs preventive maintenance on all kitchen equipment. This all-inclusive program includes cleaning refrigeration coils, hoods and filters, grease traps, stand up fans, can openers, filters on ice machines, warmers, and milk boxes. In addition, he fixes leaky faucets, drains, gaskets, and pipes and replaces elements as needed. When a manager calls in to report a malfunctioning piece of equipment, the maintenance staff person first inspects the item to determine if he can alleviate the problem or if the maintenance contractor needs to be called in. This practice serves to prevent unnecessary costs and wasted time for the department. Interviews with kitchen managers indicated all equipment is kept in good working order and repairs are handled in a timely manner.

Equipment experts state that preventive maintenance is essential to keeping equipment running properly, efficiently, and for the long haul. Another benefit of dedicated preventive maintenance is less downtime for kitchen staff members, who depend on the equipment for food preparation and serving. **Exhibits 9.13** through **9.18** show the kitchen equipment in some of the ACPS kitchens.

Exhibit 9.13
Amelon Elementary School



Exhibit 9.14
Amelon Elementary School



Source: Prismatic, May 2014.

Exhibit 9.15
Amherst Middle School



Exhibit 9.16
Monelison Middle School



Source: Prismatic, May 2014.

Exhibit 9.17
Amherst High School



Exhibit 9.18
Amherst High School



Source: Prismatic, May 2014.

COMMENDATION

ACPS has an exceptional preventive maintenance program for kitchen equipment.

As a result, all equipment is kept in good working order. Repairs are handled in a timely manner.

FINDING 9.11

The child nutrition department does not maintain a database of kitchen equipment repairs. The budget for capital replacement does not reflect strategic planning based on a needs assessment tied to age and frequency of repairs of kitchen equipment.

School managers developed a list of all equipment in their kitchens in May 2013; however, this list does not include information such as age or condition. The department does not maintain a correlated tabulation of equipment repairs by school, item, explanation of repair, or frequency of repair. The child nutrition department contracts with a company for maintenance of kitchen equipment. Invoices presented upon completion of repairs provide a description of the work performed, name of the piece of equipment, the date, and the school. This information is appropriate and sufficient to prepare and maintain a database of equipment repair history.

The child nutrition supervisor stated she does meet with the equipment maintenance contractor to plan for replacements. Budgeted projections for capital replacement are not based on a needs assessment determined by equipment age and frequency of repair. In an article in *Dietary Manager*, Diane K. Schweitzer discusses the various considerations related to decisions about equipment purchases. The list includes repair history and details frequent repairs that exceed the cost of replacing the piece of equipment. She goes on to say, "The foodservice director or manager must consider many facts that surround decisions related to new equipment purchases, or replacing equipment that may have exceeded its useful life."⁴

RECOMMENDATION 9.11

Develop a database of all equipment in the kitchens by type, age, frequency of repair, and condition.

An audit of condition and serviceability would significantly improve the overall picture of the health of each kitchen with regard to the equipment used for meal production. **Exhibit 9.19** provides a sample of output from a similar equipment audit completed in another school division. That audit resulted in a one-page sheet for each piece of equipment that included make, model, serial number, an equipment rating, and a comment on the condition and/or operational reliability of the equipment on a scale from one to five.

⁴ Schweitzer, D. (2010). Trends: Driving the need for change in foodservice equipment. *Dietary Manager*, 28-32.

Exhibit 9.19
Sample page from an equipment audit

School Information (Not Shown)

	
Equipment Category: Steamer	
Description: Double Stack Convection Steamer	
Brand: Cleveland	Model: 36CGM16300
Serial: 95411-06C-01	
Equipment Rating: ****	
Notes: In very good working condition	

Source: Prismatic file archives, March 2013.

Such an audit coupled with a database of equipment repairs will provide solid data that can be used to develop a long-term equipment replacement plan. Industry standards should be used to determine a threshold for age and number of repairs for each type of equipment to assist in developing the equipment replacement plan. The budget line item for capital replacement should reflect projected equipment purchases tied to the replacement plan.

FISCAL IMPACT

This recommendation can be implemented by the department maintenance staff person. It is estimated that less than 20 hours of time will be needed.

FINDING 9.12

Amherst has the necessary technology infrastructure to support all of the kitchens and lunchrooms. All kitchens are wired and networked for computerized management information systems. Managers are comfortable using technology in their daily operations. Use of technology within the child nutrition department includes:

- free and reduced meal applications are processed using the NUTRIKIDS program;

- point of service (POS) uses the NUTRIKIDS program;
- kitchens order using Sysco and RRS online order system;
- nutritional analysis is done using the NUTRIKIDS program;
- inventories are completed using the division's in-house inventory form on Excel;
- payroll is sent online to the division office and processed in the division payroll department;
- menus are developed using JBCS Menu Magic online program; and
- meal payments are received using myschoolbucks.com (Heartland School Solutions).

COMMENDATION

The division has the necessary technology infrastructure in place to support the kitchens and lunchrooms.

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.

ACPS provides meal applications to parents at registration by putting them in the 'back to school' packets that are distributed at the schools. Parents return completed applications to the school and the manager forwards them to the child nutrition office. Family applications are processed using NUTRIKIDS software. The software assigns the free, reduced, or paid status to applications based on the information input by the supervisor. 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 school nutrition supervisor completes the process known as verification utilizing the information generated by the NUTRIKIDS 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.

FINDING 9.13

ACPS eligibility is lower than peer divisions. Its free and reduced eligibility is lower than that of five of its peer divisions. Every effort should be made to approve as many students as possible for free or reduced-price meals, as the financial implications can be significant. One of the reasons for this low eligibility rate could be the lack of an online method for parents to apply for meal benefits.

Of the 4,288 students in ACPS, 1,861 (43.4%), were eligible for free meals and 335 (7.8 %) were eligible for reduced-price meals, for a total free and reduced eligibility of 2,196 (51.2 %). **Exhibit 9.20** compares ACPS free and reduced eligibility to peer divisions. As the chart illustrates, ACPS' approved eligibility was 3.5 percentage points lower than the average of peer divisions, with only three divisions having a lower eligibility percentage and five divisions with a higher percentage. Additionally, ACPS eligibility percentage was below the national average of 61.6 percent. While this difference could be due Amherst County having a slightly higher average household income compared to surrounding counties (based on 2010 Census Data), without a 100 percent return rate on meal applications, it is not possible to determine what the true figure for free and reduced eligibility should be.

Exhibit 9.20
National school lunch program free and reduced-price eligibility report
2012-13

Division	Membership	Free Eligibility	Free %	Reduced Eligibility	Reduced %	Total F/R Eligibility	Total F/R %
Caroline County	4,377	1,953	44.6%	348	8.0%	2,301	52.6%
Carroll County	3,993	1,910	47.8%	413	10.3%	2,323	58.2%
Dinwiddie County	4,497	1,924	42.8%	363	8.1%	2,287	50.9%
Mecklenburg County	4,624	2,444	52.9%	424	9.2%	2,868	62.0%
Pulaski County	4,464	1,953	43.8%	303	6.8%	2,256	50.5%
Russell County	4,116	2,015	49.0%	323	7.9%	2,338	56.8%
Smyth County	4,797	2,354	49.1%	408	8.5%	2,762	57.6%
Wythe County	4,281	1,727	40.3%	379	8.9%	2,106	49.2%
Peer Division Average	4,394	2,035	46.3%	370	8.5%	2,405	54.7%
Amherst County	4,288	1,861	43.4%	335	7.8%	2,196	51.2%
Appomattox County	2,290	935	40.8%	140	6.1%	1,075	46.9%
Bedford County	10,351	3,062	29.6%	761	7.4%	3,823	36.9%
Campbell County	8,202	3,099	37.8%	546	6.6%	3,645	44.4%
Lynchburg City	8,689	4,979	57.3%	462	5.3%	5,441	62.6%
Nelson County	1,936	843	43.5%	151	7.8%	994	51.3%

Source: 2012-13 VDOE Superintendent's Annual Report.

Parents are not able to use an online system to apply for meal benefits. Use of this technology has become routine in school divisions and has been proven to increase application rates and streamline the approval process through greater efficiencies of time and man-hours.⁵ Parents in ACPS have the ability to make meal payments online so implementation of an online process to apply for meal benefits should prove to be an easy process for the division. The software used by the child nutrition department does contain a module for online meal applications.

RECOMMENDATION 9.13

Develop strategies to increase the number of students completing applications for free and reduced-price meals.

The division should implement an online system for meal benefits applications. Notification to the school community through a marketing campaign will serve to provide information on the various ways parents can apply for meal benefits. Information could be provided to local newspapers, highlighted on the ACPS website, and put in each school's newsletter. Managers should work with their school principal and social worker to ensure all eligible parents return applications.

⁵ Use of online systems is not, however, correlated with increased participation rates.

FISCAL IMPACT

Given the peer division data, it is reasonable to assume that greater efforts to get families qualified for meal benefits would result in at least 100 additional students qualifying. Assuming all 100 qualify for free meals and that they select a reimbursable lunch each day, the division would realize an additional \$50,591 in revenue annually:

100 additional free-qualified students x \$2.99 reimbursement for lunch x 180 attendance days x 0.94 attendance factor

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.	\$50,591	\$50,591	\$50,591	\$50,591	\$50,591

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, variety, and presentation, 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.

Participation rates can be affected by food presentation. **Exhibit 9.21** shows examples of ACPS food options that are somewhat unappealing or lack variety. However, ACPS is showing efforts to increase participation and nutrition through attractive and healthy fruit options (**Exhibit 9.22**).

Exhibit 9.21
Unfavorable food presentation in ACPS



Source: Prismatic, May 2014.

Exhibit 9.22
Pleasant fruit presentation in ACPS



Source: Prismatic, May 2014.

FINDING 9.14

Overall meal participation rates as a percentage of enrollment averaged 63 percent for lunch and 28 percent for breakfast. Exhibit 9.23 compares ACPS' lunch participation rates with the peer divisions. As shown, ACPS had a higher-than-average lunch participation rate when compared to both the peers and the neighbor divisions.

Exhibit 9.23
ACPS lunch participation report
2012-13

Division	Membership	% Free	% Reduced	% Paid	% Total Participation
Caroline County	4,377	73.7%	66.1%	32.0%	53.1%
Carroll County	3,993	80.3%	76.0%	61.7%	72.3%
Dinwiddie County	4,497	69.5%	57.8%	31.0%	48.8%
Mecklenburg County	4,624	80.6%	70.0%	40.3%	64.1%
Pulaski County	4,464	75.9%	73.3%	59.8%	67.8%
Russell County	4,116	69.0%	57.8%	35.8%	53.1%
Smyth County	4,797	81.2%	77.1%	56.6%	70.3%
Wythe County	4,281	76.3%	67.9%	45.0%	60.2%
Peer Division Average	4,394	75.8%	68.3%	45.3%	61.2%
Amherst County	4,288	76.2%	72.5%	50.1%	63.3%
Appomattox County	2,290	66.4%	55.3%	36.3%	50.1%
Campbell County	8,202	78.5%	68.5%	42.0%	56.8%
Lynchburg City	8,689	69.7%	58.8%	30.2%	53.9%
Nelson County	1,936	77.4%	72.0%	46.4%	61.8%
Neighbor Average	5,279	73.0%	63.7%	38.7%	55.7%

Source: 2012-13 VDOE Superintendent's Annual Report.

Exhibit 9.24 compares ACPS' breakfast participation rates with the peer and neighbor divisions. Although Amherst fell one percentage point below the peer average, it was well above the neighbor division average.

**Exhibit 9.24
ACPS breakfast participation report
2012-13**

Division	Membership	% Free	% Reduced	% Paid	% Total Participation
Caroline County	4,377	45.0%	32.8%	11.4%	27.9%
Carroll County	3,993	53.4%	46.0%	25.1%	41.2%
Dinwiddie County	4,497	41.0%	27.3%	9.7%	23.9%
Mecklenburg County	4,624	38.5%	16.0%	5.1%	23.4%
Pulaski County	4,464	46.0%	31.3%	17.2%	30.7%
Russell County	4,116	39.5%	26.9%	10.0%	25.1%
Smyth County	4,797	48.9%	41.0%	18.5%	35.2%
Wythe County	4,281	38.1%	21.4%	8.2%	21.8%
Peer Division Average	4,394	43.8%	30.3%	13.1%	28.7%
Amherst County	4,288	43.3%	31.5%	13.0%	27.7%
Appomattox County	2,290	29.7%	18.6%	4.9%	16.1%
Campbell County	8,202	46.4%	40.3%	12.2%	26.3%
Lynchburg City	8,689	40.2%	27.9%	8.4%	27.2%
Nelson County	1,936	39.1%	25.9%	10.1%	23.8%
Neighbor Average	5,279	38.9%	28.2%	8.9%	23.4%

Source: 2012-13 VDOE Superintendent's Annual Report.

The breakfast participation rate of ACPS's free and reduced-price eligible students is well below their lunch participation rate. This indicates that breakfast is lacking in appeal or convenience for these students.

While no industry standards exist for breakfast participation, the FRAC (Food Research and Action Center) *School Breakfast Scorecard: 2012-2013 School Year* states "for 2012-2013, for every 100 children that participate in the National School Lunch Program, 51.9 participated in the School Breakfast Program, an increase from 50.4 in the 2011-2012 school year." Based on data from 2012-13, ACPS was well below such a participation rate, averaging a 27.7 percent participation rate for breakfast.

The General Assembly of the Commonwealth of Virginia appropriate funds for an incentive program to improve student participation the school breakfast program. The incentive funding is available to any school division that increased per student breakfast participation above the baseline established in 2003-04 (base year). ACPS received \$21,150 in 2013-14 based on an incentive of \$0.22 per meal. This funding was for actual student participation from 2012-13.

RECOMMENDATION 9.14

Develop strategies for increasing student participation rates, focusing first on breakfast.

The division should:

- conduct surveys of parents to determine why their students are not participating;
- 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
- develop standards of excellence for menu item presentation and require all schools to comply by monitoring on a frequent basis;
- explore alternative serving options for breakfast like breakfast in the classroom or breakfast after the first bell;
- 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

This recommendation can be implemented by current student nutrition staff. The exact amount of time to be spent will depend on the actions undertaken by the department, but should result in increased participation. In particular, the division should focus on increasing breakfast participation rates.

Currently, on average only slightly more than half of the students eligible for free or reduced-price meals participate in the program for breakfast each day. Improving by just an additional 250 students who are eligible for free meals would result in increased revenues of \$66,834 annually:

$$250 \text{ additional students participating} \times \$1.58 \text{ federal reimbursement} \times 180 \text{ school days} \\ \times 0.94 \text{ attendance factor}$$

Based on observations in other divisions, and data currently developing nationally, the consulting team strongly encourages ACPS 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 ACPS 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. The gradual savings

below do not include the net cost of providing free lunch to reduced-price students; therefore, net revenue will be somewhat smaller.

Recommendation	2014-15	2015-16	2016-17	2017-18	2018-19
Increase student meal participation.	\$0	\$22,278	\$44,556	\$66,834	\$66,834

G. Nutrition and Nutrition Education Programs

In a study conducted by Youth Expanded Food and Nutrition Education Program in 2010, research in school-based nutrition education has found that change in nutrition-related behaviors requires intense, long-term interventions.⁶ The amount of exposure to nutrition education, while adequate to bring about changes in knowledge, may not be adequate to influence students' behavior. This underscores the need for ongoing nutrition education, if a school division hopes to influence behavior ultimately.

The *Healthy, Hunger-Free Kids Act of 2010 (HHFKA)* provides for sweeping changes to school food service programs. In addition to changes in program administration, the *HHFKA* also requires broad changes to the menus both in nutritional requirements and menu components. **Exhibits 9.25** and **9.26** provide the nutritional changes required under *HHFKA*. 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 9.27**. The bulk of the changes is required by 2014-15, but the final sodium reduction is not required until 2022-23.

The *HHFKA* 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.

⁶ Florida Parents Join Students in Voting on Healthy New Menu Options - Tray Talk, School Nutrition Association (January 2013)

Exhibit 9.25
Summary of changes in nutritional requirements for breakfast

Item	Old Requirement	New Requirement		
Fruit	½ cup per day (vegetable substitution allowed)	1 cup per day (vegetable substitution allowed) Quantity required for 2014-15. Students are allowed to select ½ 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 9.26
Summary of changes in nutritional requirements for lunch

Item	Old Requirement	New Requirement		
Fruit and Vegetables	½ - ¾ cup of fruit and vegetables combined per day	¾ - 1 cup of vegetables plus ½ - 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 9.27
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							
· Target 1			L, B			L, B	L, B
· Target 2							
· Final target							
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 9.15

All kitchen managers have organized a Nutrition Advisory Council (NAC) in their schools. Launched in 1973 by ASFSA (now SNA), NACs were formed based on the idea that students should have an active role in their school meals programs. They provided an opportunity for students to become more involved by creating a forum where ideas could be exchanged and helped students improve their knowledge of nutrition and good health. In fall 2003, however, the formal program administered by the School Nutrition Association was discontinued. Although SNA is no longer sponsoring a national NAC program, it

encourages schools to continue forming them. In its Keys to Excellence self-assessment tool, the SNA lists the following indicator of a best practice in communications and marketing:

The school nutrition program organizes opportunities such as food shows, tasting panels, and focus groups to engage students in program planning and to educate them on the role of good nutrition and healthy lifestyles.⁷

During interviews with managers, when asked about how they collect feedback from students, all stated they have formed a NAC with student representatives in their school. They meet with this group to taste test new food items and recipes, get overall feedback on the school meals program, present training on nutrition, and help plan marketing events.

COMMENDATION

The child nutrition department uses student NAC groups to provide feedback on the meals program and educate students on nutrition and good health.

Moving forward, the use of NACs in ACPS could be enhanced in several ways to make them even more effective. Kitchen managers and the child nutrition supervisor can develop goals for the school year as to desired outcomes from the NAC meetings. These should be updated on an annual basis. An agenda for each meeting can be developed to provide guidance to managers. A summary of each meeting in each school should be developed to provide feedback that can be used for decision-making.

H. Purchasing and Warehousing

Savvy purchasing and contracting can enhance both the financial bottom line and the quality of food served in a division's cafeterias. As noted in *Managing Child Nutrition Programs*, "purchasing has a greater impact on the quality of food served to children than any other school food and nutrition management function."⁸ A school food program maintains myriad contracts with food and supply purveyors, technology providers, staff trainers, and equipment servicers. Effective competitive bidding provides the foundation for expectations regarding food, equipment, and service quality. How the resulting contracts are structured to provide long-term efficient support of a food service program is critical.

FINDING 9.16

The child nutrition department has two central freezers at two different kitchens used only for the storage of USDA commodities until they are needed by the kitchens. Some of the USDA commodities ordered by ACPS through use of their entitlement allocation are further processed and shipped to a distributor who provides the option of storing these items for a fee until needed or delivery to individual schools in the division. Utilizing the division's freezer space saves on storage fees and allows a school kitchen to receive only the amounts they need. Kitchen managers' requests for these items can be accommodated in a timely manner as compared to scheduling delivery from the distributor who requires a minimum case count for delivery.

⁷ Keys to Excellence: Standards of Practice for Nutrition Integrity. (n.d.). Retrieve from <http://www.schoolnutrition.org/Content.aspx?id=20206>

⁸ Martin, J. (1999). Procurement. *Managing child nutrition programs: Leadership for excellence*. Gaithersburg, Md.: Aspen Publishers.

The USDA's food distribution program supports American agricultural producers by purchasing food items to be used in the school lunch program. Schools can elect to receive these items as offered by USDA or contract to have them further processed into more convenient, ready to use items. There are two issues with the USDA foods program that affect divisions in a negative manner:

- the quantity requirements for deliveries can be too large for smaller child nutrition operations; and
- the timing of when the commodities are sent to divisions may not coincide with when the items are on the menu.

Both of these factors can result in additional costs for storage. Most state agreements for contractors allow for a free storage period and after that time is up, storage fees can be charged.

ACPS has been proactive in their decision to install two walk-in freezers for the storage of USDA commodities. After the free storage time has expired, they can take inventory of the items and store them until school kitchens need the items for meal production. These freezers also store excess products that result from minimum quantity requirements on orders. Items in these freezers are not included with individual school kitchen inventories and are charged to schools when they order them. Deliveries are made by the child nutrition staff person who also performs preventive maintenance on the kitchen equipment.

COMMENDATION

The child nutrition department uses two walk-in freezers to accommodate storage of USDA commodities until they are needed for meal production in school kitchens. This decision has resulted in cost savings and efficiencies in ordering and inventory.

Peer Comparisons

This appendix contains several tables that contain various financial and quantitative data describing the operations of Amherst County Public Schools and its selected peer and neighbor divisions. As noted in Chapter 1, peers were selected based on similar size and wealth, and neighbor divisions were selected based on proximity.

Exhibits A-1 through A-6 provide general overview data on division finances, student demographics, and staffing. **Exhibits A-7 through A-13** provide detailed breakdowns of staffing by operational category. **Exhibit A-14** provides free/reduced-price lunch statistics for the food services departments of each division, and **Exhibits A-15 through A-17** provide data on graduation and dropout rates.

The data in these tables are used throughout this report to provide comparative analyses of ACPS operations. Additional, functional-area-specific peer and neighbor comparisons can be found in Chapters 2 through 9.

**Exhibit A-1
Overview, 2011-13**

School Division	End of Years		Percentage Students with Disabilities	Percentage Economically Disadvantaged	Total Number of Schools
	2011-12	2012-13			
Caroline County	4,122	4,181	15.1%	52.5%	6
Carroll County	4,155	4,149	14.0%	58.1%	12
Dinwiddie County	4,412	4,405	13.1%	50.8%	8
Mecklenburg County	4,536	4,527	13.1%	62.0%	8
Pulaski County	4,442	4,377	17.5%	50.5%	8
Russell County	4,123	4,057	19.9%	56.8%	13
Smyth County	4,621	4,617	5.9%	57.6%	13
Wythe County	4,236	4,201	9.8%	49.1%	12
Peer Division Average	4331	4,314	13.6%	54.7%	10
Amherst County	4,303	4,213	13.4%	51.2%	10
Appomattox County	2,197	2,199	8.7%	46.9%	4
Bedford County	10,268	10,266	9.7%	36.9%	21
Campbell County	8,069	8,039	8.7%	44.4%	13
Lynchburg City	8,274	8,186	7.0%	62.6%	16
Nelson County	1,926	1,928	7.3%	51.3%	4

Source: 2011-12 VDOE Superintendent's Annual Report, VDOE 2010 Enrollment Reports, VDOE School Report Cards.

**Exhibit A-2
2012-13 teacher staffing levels**

School Division	Elementary Teaching Positions	Secondary Teaching Positions	Students per Classroom Teacher	
			Grades K-7	Grades 8-12
Carolina County	169	131	15.9	10.8
Carroll County	212	124	12.5	12.2
Dinwiddie County	191	139	14.1	11.3
Mecklenburg County	193	119	15.3	14.8
Pulaski County	254	125	10.7	13.7
Russell County	223	114	11.3	11.1
Smyth County	255	170	11.2	10.5
Wythe County	212	105	12.6	14.5
Peer Division Average	214	128	13.0	12.4
Amherst County	217	176	12.7	10.0
Appomattox County	99	66	13.7	12.5
Bedford County	360	417	16.8	9.9
Campbell County	276	344	17.3	9.3
Lynchburg City	526	266	9.9	10.9
Nelson County	86	70	15.6	10.8

Source: 2012-13 VDOE Superintendent's Annual Report.

Exhibit A-3
2011-12 sources of revenue/school operating funds

School Division	Sales and Use Tax	Federal Funds	State Funds	Local Funds	Other
Caroline County	\$ 4,467,694	\$ 3,972,986	\$ 16,887,447	\$ 11,699,987	\$ 1,648,734
Carroll County	\$ 3,456,600	\$ 5,720,649	\$ 20,152,322	\$ 14,343,946	\$ 757,590
Dinwiddie County	\$ 4,453,732	\$ 4,617,772	\$ 20,508,302	\$ 12,081,206	\$ 1,814,222
Mecklenburg County	\$ 4,084,737	\$ 4,937,951	\$ 21,394,139	\$ 11,052,878	\$ 727,460
Pulaski County	\$ 4,301,080	\$ 7,185,216	\$ 20,365,118	\$ 13,863,486	\$ 2,078,361
Russell County	\$ 3,343,316	\$ 7,437,615	\$ 21,997,385	\$ 7,583,429	\$ 1,889,441
Smyth County	\$ 4,372,466	\$ 7,918,668	\$ 25,451,283	\$ 7,915,171	\$ 2,177,058
Wythe County	\$ 3,924,043	\$ 4,465,279	\$ 17,958,057	\$ 13,012,700	\$ 1,977,937
Peer Division Average	\$ 4,050,459	\$ 5,782,017	\$ 20,589,257	\$ 11,444,100	\$ 1,633,850
Amherst County	\$ 4,817,158	\$ 5,727,353	\$ 21,254,119	\$ 12,409,123	\$ 1,648,365
Appomattox County	\$ 1,986,256	\$ 2,059,016	\$ 10,998,005	\$ 4,190,208	\$ 721,206
Bedford County	\$ 9,132,404	\$ 9,933,843	\$ 33,701,587	\$ 36,209,072	\$ 8,041,074
Campbell County	\$ 8,313,975	\$ 8,579,412	\$ 36,070,699	\$ 20,097,049	\$ 2,469,743
Lynchburg City	\$ 8,971,759	\$ 15,521,425	\$ 34,519,668	\$ 33,864,951	\$ 3,497,363
Nelson County	\$ 2,045,029	\$ 2,090,319	\$ 5,593,829	\$ 13,066,936	\$ 790,425

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

Exhibit A-4
2011-12 sources of revenue/school operating funds

School Division	Sales and Use Tax	Federal Funds	State Funds	Local Funds	Other
Caroline County	12%	10%	44%	30%	4%
Carroll County	8%	13%	45%	32%	2%
Dinwiddie County	16%	16%	17%	25%	26%
Mecklenburg County	9%	11%	46%	30%	4%
Pulaski County	9%	15%	43%	29%	4%
Russell County	8%	18%	52%	18%	4%
Smyth County	9%	17%	53%	16%	5%
Wythe County	10%	11%	43%	31%	5%
Peer Division Average	10%	14%	43%	26%	7%
Amherst County	11%	12%	46%	27%	4%
Appomattox County	10%	10%	55%	21%	4%
Bedford County	10%	10%	35%	38%	7%
Campbell County	11%	11%	48%	27%	3%
Lynchburg City	9%	16%	36%	35%	4%
Nelson County	9%	9%	24%	55%	3%

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

**Exhibit A-5
ACPS ADM and expenditures over time**

Year	ADM	Total Per Pupil Expenditure for Operation of Regular School Day	Total Expenditures Per Pupil	Local Expenditures per Pupil
2001-02	4,522	\$ 8,260	\$ 6,802	\$ 2,178
2002-03	4,604	\$ 7,360	\$ 6,882	\$ 2,154
2003-04	4,512	\$ 7,728	\$ 7,258	\$ 2,250
2004-05	4,677	\$ 7,319	\$ 7,873	\$ 2,333
2005-06	4,730	\$ 7,562	\$ 8,474	\$ 2,715
2006-07	4,783	\$ 8,576	\$ 8,976	\$ 2,487
2007-08	4,755	\$ 8,805	\$ 9,329	\$ 2,499
2008-09	4,704	\$ 9,688	\$ 10,126	\$ 2,616
2009-10	4,635	\$ 9,363	\$ 9,920	\$ 2,730
2010-11	4,979	\$ 9,222	\$ 9,865	\$ 2,971
2011-12	4,488	\$ 9,477	\$ 9,728	\$ 2,731
2012-13	4,231	\$ 9,557	\$ 9,834	\$ 3,248

Source: 2001-13 VDOE Superintendent's Annual Report.

**Exhibit A-6
2012-13 cost per pupil**

School Division	2011-12		2012-13	
	Instruction Spending per Pupil	Administration Spending per Pupil	Instruction Spending Per Pupil	Administration Spending per Pupil
Caroline County	\$ 6,652	\$ 144	\$ 7,249	\$ 165
Carroll County	\$ 6,792	\$ 188	\$ 7,305	\$ 203
Dinwiddie County	\$ 6,580	\$ 178	\$ 6,771	\$ 198
Mecklenburg County	\$ 6,776	\$ 244	\$ 7,120	\$ 222
Pulaski County	\$ 7,414	\$ 309	\$ 7,263	\$ 330
Russell County	\$ 6,619	\$ 219	\$ 6,659	\$ 251
Smyth County	\$ 7,422	\$ 211	\$ 8,460	\$ 268
Wythe County	\$ 6,880	\$ 141	\$ 7,129	\$ 155
Peer Division Average	\$ 6,892	\$ 204	\$ 7,245	\$ 224
Amherst County	\$ 7,393	\$ 279	\$ 7,523	\$ 303
Appomattox County	\$ 6,212	\$ 468	\$ 6,578	\$ 476
Bedford County	\$ 6,447	\$ 143	\$ 6,810	\$ 145
Campbell County	\$ 6,600	\$ 348	\$ 8,707	\$ 185
Lynchburg City	\$ 8,026	\$ 255	\$ 8,391	\$ 300
Nelson County	\$ 7,769	\$ 505	\$ 8,166	\$ 526

Source: 2012-13 VDOE Superintendent's Annual Report.

Exhibit A-7
2011-12 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
Caroline County	2,681	1,405	3.1	70.2	17.1	4.6
Carroll County	2,645	1,511	3.7	78.1	12.7	4.9
Dinwiddie County	2,705	1,572	4.0	77.2	9.1	5.4
Mecklenburg County	2,749	1,764	4.1	66.5	18.6	4.5
Pulaski County	2,715	1,712	4.0	83.0	25.0	5.3
Russell County	2,531	1,602	5.4	83.9	16.6	4.6
Smyth County	2,851	1,781	4.7	88.9	12.3	5.3
Wythe County	2,668	1,519	3.9	73.5	15.1	5.6
Peer Division Average	2,693	1,608	4.1	77.7	15.8	5.0
Amherst County	2,533	1,750	3.3	87.6	16.3	5.4
Appomattox County	1,359	819	3.7	72.2	14.5	4.4
Bedford County	6,064	4,119	3.4	73.9	14.8	4.9
Campbell County	4,776	3,189	4.2	75.5	14.3	3.9
Lynchburg City	5,179	2,887	3.7	88.2	21.2	6.3
Nelson County	1,171	751	4.3	79.1	15.8	3.1

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

Exhibit A-8
Administrative, services, and support staffing by function, 2011-12

School Division	Function					
	Administrative Count	Technical and Clerical Count	Instructional Support Count	Other Professional Count	Trades, Labors, Operative, and Service	Total
Caroline County	17.3	37.8	9.2	8.4	137.5	210.2
Carroll County	8.3	65.1	8.3	16.0	163.4	261.0
Dinwiddie County	17.0	48.3	1.0	17.0	93.0	176.3
Mecklenburg County	20.0	55.0	13.0	12.0	176.0	276.0
Pulaski County	14.0	51.3	2.0	10.8	123.5	201.5
Russell County	18.5	66.4	3.0	9.0	113.7	210.6
Smyth County	18.3	59.4	0.0	11.5	113.8	203.0
Wythe County	9.9	38.8	5.0	15.0	133.4	202.1
Peer Division Average	15.4	52.8	5.2	12.5	131.8	217.6
Amherst County	13.3	58.8	7.0	12.5	121.5	213.0
Appomattox County	13.0	25.2	3.0	5.2	59.8	106.3
Bedford County	21.4	94.2	26.2	41.7	216.7	400.3
Campbell County	20.5	112.9	15.0	29.7	209.6	387.7
Lynchburg City	-	-	-	-	-	-
Nelson County	12.5	30.5	2.0	4.0	87.0	136.0

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

**Exhibit A-9
2011-12 Instructional personnel**

School Division	Instruction			
	Administrative Count	Technical and Clerical Count	Instructional Support Count	Other Professional Count
Caroline County	7.0	25.1	9.2	0.0
Carroll County	0.3	50.2	7.3	1.0
Dinwiddie County	5.0	34.4	1.0	2.0
Mecklenburg County	2.5	33.0	13.0	0.0
Pulaski County	3.0	28.9	2.0	1.0
Russell County	7.8	53.4	0.0	0.0
Smyth County	6.3	35.2	0.0	0.0
Wythe County	0.0	26.0	5.0	2.0
Peer Division Average	4.0	35.8	4.7	0.8
Amherst County	2.3	37.3	7.0	0.0
Appomatox County	3.0	14.0	0.0	1.1
Bedford County	7.4	66.5	26.2	0.0
Campbell County	8.5	63.8	10.0	0.0
Lynchburg City	13.1	55.5	54.0	0.1
Nelson County	3.5	17.5	0.0	0.0

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

Exhibit A-10
2011-12 Administrative, attendance, and health personnel

School Division	Administrative, Attendance, and Health		
	Administrative Count	Technical and Clerical Count	Other Professional Count
Caroline County	7.5	4.0	8.4
Carroll County	6.0	6.2	14.0
Dinwiddie County	8.0	4.0	14.0
Mecklenburg County	13.8	5.0	12.0
Nelson County	6.0	8.0	4.0
Pulaski County	9.0	9.4	9.8
Russell County	8.0	7.0	8.0
Smyth County	9.5	8.5	11.5
Wythe County	8.0	5.8	13.0
Peer Division Average	10.5	8.2	12.4
Amherst County	8.0	14.5	12.5
Appomattox County	8.0	7.3	4.1
Bedford County	10.0	14.0	39.7
Campbell County	10.0	14.2	29.7
Lynchburg City	12.5	16.2	36.5
Nelson County	6.0	8.0	4.0

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

**Exhibit A-11
2011-12 Technology personnel**

School Division	Technology		
	Administrative Count	Technical and Clerical Count	Instructional Support Count
Caroline County	0.0	6.2	0.0
Carroll County	0.0	5.8	1.0
Dinwiddie County	2.0	6.5	0.0
Mecklenburg County	0.8	12.0	0.0
Pulaski County	1.0	12.0	0.0
Russell County	1.0	5.0	3.0
Smyth County	1.0	5.0	0.0
Wythe County	1.0	6.0	0.0
Peer Division Average	0.9	7.3	0.5
Amherst County	1.0	5.0	0.0
Appomattox County	1.0	4.0	3.0
Bedford County	1.0	12.0	0.0
Campbell County	1.0	12.2	5.0
Lynchburg City	1.0	14.0	0.0
Nelson County	1.0	4.0	2.0

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

**Exhibit A-12
2011-12 Transportation personnel**

School Division	Transportation			
	Administrative Count	Technical and Clerical Count	Other Professional Count	Trades, Labor, and Service Count
Caroline County	1.3	1.3	0.0	93.0
Carroll County	1.0	1.0	0.0	112.4
Dinwiddie County	1.0	2.4	1.0	61.5
Mecklenburg County	2.0	5.0	0.0	133.0
Pulaski County	0.0	0.0	0.0	63.0
Russell County	0.7	0.0	0.0	68.0
Smyth County	0.0	3.8	0.0	75.8
Wythe County	0.5	0.5	0.0	85.0
Peer Division Average	0.8	1.8	0.1	86.5
Amherst County	1.0	1.6	0.0	76.0
Appomattox County	1.0	0.0	0.0	37.8
Bedford County	0.0	0.0	2.0	131.6
Campbell County	1.0	22.8	0.0	120.3
Lynchburg City	0.0	2.0	2.5	113.0
Nelson County	1.0	0.5	0.0	62.0

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

Exhibit A-13
2011-12 Operations and maintenance personnel

School Division	Operations and Maintenance			
	Administrative Count	Technical and Clerical Count	Other Professional Count	Trades, Labor, and Service Count
Caroline County	1.5	1.3	0.0	44.5
Carroll County	1.0	2.0	1.0	51.0
Dinwiddie County	1.0	1.0	0.0	31.5
Mecklenburg County	1.0	0.0	0.0	43.0
Pulaski County	1.0	1.0	0.0	60.5
Russell County	1.0	1.0	1.0	45.7
Smyth County	1.5	7.0	0.0	41.0
Wythe County	0.4	0.5	0.0	48.4
Peer Division Average	1.1	2.1	0.3	45.7
Amherst County	1.0	0.4	0.0	45.5
Appomattox County	0.0	0.0	0.0	22.0
Bedford County	2.0	1.8	0.0	85.2
Campbell County	0.0	0.0	0.0	89.3
Lynchburg City	1.0	3.0	2.1	116.0
Nelson County	1.0	0.5	0.0	25.0

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

**Exhibit A-14
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
Caroline County	4,377	1,953	44.6%	348	8.0%	52.6%
Carroll County	3,993	1,910	47.8%	413	10.3%	58.2%
Dinwiddie County	4,497	1,924	42.8%	363	8.1%	50.9%
Mecklenburg County	4,624	2,444	52.9%	424	9.2%	62.0%
Pulaski County	4,464	1,953	43.8%	303	6.8%	50.5%
Russell County	4,116	2,015	49.0%	323	7.9%	56.8%
Smyth County	4,797	2,354	49.1%	408	8.5%	57.6%
Wythe County	4,281	1,727	40.3%	379	8.9%	49.2%
Peer Division Average	4,394	2,035	46.3%	370	8.5%	54.7%
Amherst County	4,288	1,861	43.4%	335	7.81%	51.2%
Appomattox County	2,290	935	40.8%	140	6.1%	46.9%
Bedford County	10,351	3,062	29.58%	761	7.35%	36.93%
Campbell County	8,202	3,099	37.78%	546	6.66%	44.44%
Lynchburg City	8,689	4,979	57.30%	462	5.32%	62.62%
Nelson County	1,936	843	43.5%	151	7.8%	51.3%

Source: 2012-13 VDOE Superintendent's Annual Report.

**Exhibit A-15
2012-13 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	
Caroline County	130	117	15	0	5	0	3	273
Carroll County	138	140	1	0	2	0	9	295
Dinwiddie County	207	101	17	4	7	0	10	368
Mecklenburg County	143	151	15	1	2	0	33	347
Pulaski County	139	133	36	1	0	0	6	329
Russell County	157	121	2	5	2	0	22	311
Smyth County	179	146	7	0	0	0	10	354
Wythe County	168	128	11	0	4	0	9	324
Peer Division Average	158	130	13	1	3	0	13	325
Amherst County	182	146	4	2	2	0	5	355
Appomattox County	45	87	3	0	0	0	8	160
Bedford County	330	422	21	2	10	0	6	797
Campbell County	344	302	10	3	0	0	20	707
Lynchburg City	258	257	10	3	15	0	26	593
Nelson County	70	59	4	2	0	0	3	146

Source: 2012-13 VDOE Superintendent's Annual Report.

Exhibit A-16
2012-13 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
Caroline County	32.6%	28.2%	2.2%	8.8%	5.1%	23.1%
Carroll County	48.5%	30.9%	3.1%	11.5%	5.8%	0.3%
Dinwiddie County	22.3%	25.3%	2.2%	40.5%	7.3%	2.5%
Mecklenburg County	38.0%	29.7%	0.3%	22.8%	8.4%	0.9%
Pulaski County	46.8%	25.2%	4.3%	10.0%	4.0%	9.7%
Russell County	44.7%	21.2%	1.9%	27.3%	1.9%	2.9%
Smyth County	43.5%	32.2%	2.8%	15.3%	4.5%	1.7%
Wythe County	63.3%	21.3%	3.1%	8.3%	1.9%	2.2%
Peer Division Average	42.5%	26.8%	2.5%	18.0%	4.9%	5.4%
Amherst County	36.3%	31.3%	3.4%	17.5%	4.5%	7.0%
Appomattox County	30.6%	35.0%	3.1%	29.4%	1.9%	0.0%
Bedford County	30.99%	44.67%	4.14%	13.93%	3.51%	2.76%
Campbell County	36.07%	40.31%	1.27%	11.74%	4.24%	6.36%
Lynchburg City	31.03%	41.32%	2.53%	6.58%	4.55%	14.00%
Nelson County	38.4%	30.8%	4.8%	21.2%	0.7%	4.1%

Source: 2012-13 VDOE Superintendent's Annual Report.

**Exhibit A-17
2012-13 Dropout percentage**

School Division	Grades 8-12 Total Membership Count	Total Dropouts Count	Dropout Percentage
Caroline County	1,406	30	2.1%
Carroll County	1,511	18	1.2%
Dinwiddie County	1,573	27	1.7%
Mecklenburg County	1,764	25	1.4%
Pulaski County	1,712	37	2.2%
Russell County	1,603	22	1.4%
Smyth County	1,781	18	1.0%
Wythe County	1,520	35	2.3%
Peer Division Average	1,609	22	1.4%
Amherst County	1,750	16	0.9%
Appomattox County	819	7	0.8%
Bedford County	10,266	54	0.5%
Campbell County	8,039	45	0.5%
Lynchburg City	8,186	80	1.0%
Nelson County	751	4	0.5%

Source: 2012-13 VDOE Superintendent's Annual Report.

B ACPS 2014 Capital Improvement Projects

The capital improvement projects (CIP) listing is compiled semiannually by professional inspectors. The list prioritizes facilities and maintenance upgrades and provides specific details about their estimated costs. The list is used to determine the proper allocation of funds. This appendix is discussed in greater detail in Chapter 5.

DEPARTMENT: School Division & Facilities		Original Date	Expected Life (A)	Replacement Range	Replacement Value (adjusted 3%)	Ordered Priority	2015	2016	2017	2018	2019	2020
Dr. Nichols	11/14/13											
IMMEDIATE NEEDS												
SECURITY ENHANCEMENTS (UPGRADE ELECTRONIC DOOR LOCKS, INSTALL SECURITY VESTIBULES, UPGRADE EXIT HARDWARE, REPLACE INTERIOR / EXTERIOR DOORS AND UPGRADE LOCKSETS, ADDITIONAL SECURITY CAMERAS, INSTALL SAFETY BOLLARDS)												
				2014 - 2016	\$ 2,134,644	1	\$ 547,177	\$ 1,058,725	\$ 528,742			
T12 LIGHT FIXTURE REPLACEMENT	1990	15-20 YRS	2014		\$ 429,946	2 *	\$ 429,946					
HVAC EQUIPMENT REPLACEMENT	1985 - 1997	15 - 20 YRS	2014-2018		\$ 6,374,539	3 *	\$ 5,164,161		\$ 34,623	\$ 981,575	\$ 194,180	
ROOF REPLACEMENT	1995 - 2006	15 - 20 YRS	2014-2019		\$ 4,844,733	4	\$ 1,241,000	\$ 1,478,968	\$ 1,456,992	\$ 651,340		\$ 16,433
GYM FLOOR RESURFACING	1990 - 1995	15 YRS	2014-2016		\$ 361,400	5	\$ 121,709	\$ 122,626	\$ 117,065			
PARKING LOT PAVING & SEAL COATING	1990 - 1995	15 - 20 YRS	2014-2017		\$ 597,376	6	\$ 158,587	\$ 121,669	\$ 122,179	\$ 194,942		
REPAIR CONCRETE ENTRANCES AT MHES & AMS	1990 & 1970	35 - 50 YRS	2014		\$ 55,542	7	\$ 55,542					
ACPS Pupil Transportation	1998 - 2001	15 YRS	2014-2019		\$ 3,121,415	8	\$ 313,635	\$ 484,100	\$ 580,920	\$ 774,560	\$ 484,100	\$ 484,100
ACPS MAINTENANCE VEHICLE FLEET (REPLACE 3 TO 5 PER YEAR)	1991 -2000	8 - 10 YRS	2014-2019		\$ 624,180	9	\$ 103,000	\$ 127,720	\$ 117,420	\$ 112,270	\$ 106,090	\$ 57,680
PAINT BUILDINGS (All 11 on rotating schedule)	1998 - 2010	8 - 10 YRS	2015-2019		\$ 799,368	10		\$ 163,976	\$ 132,046	\$ 157,281	\$ 170,671	\$ 175,394
CONSTRUCT ACPS STORAGE BUILDING			2015		\$ 180,250	11		\$ 180,250				
EXTEND (WIDEN BUS GARAGE)	1970	30 YRS	2015		\$ 324,038	12		\$ 324,038				
RENOVATE RESTROOMS (Classroom & Primary) and LOCKER ROOMS	1965 - 1990	35 - 50 YRS	2018 - 2019		\$ 4,513,450	13					\$ 2,090,172	\$ 2,423,278
REPAIR / REPLACE CENTRAL CLOCK SYSTEMS	1965 - 1990	25 YRS	2017-2019		\$ 930,952	14				\$ 183,889	\$ 390,366	\$ 356,697
RETURF FIELD AND RENOVATE HOME BLEACHERS ACHS STADIUM	2004	10 YRS	2019		\$ 927,000	15						\$ 927,000
CONSTRUCT RESTROOM & CONCESSION BLDG AHS BASEBALL / SOFTBALL FIELDS			2016		\$ 321,360	16			\$ 321,360			
PAVE BUS GARAGE PARKING LOT			2018		\$ 177,160	17					\$ 177,160	
RENOVATE LOCKER ROOMS IN ACHS FIELD HOUSE	1985	30 YRS	2017		\$ 64,375	18				\$ 64,375		
RENOVATE TENNIS COURTS ACHS	1985	10- 15 YRS	2014		\$ 136,874	19	\$ 136,874					



SUBTOTAL				\$ 26,918,602		\$ 8,271,631	\$ 4,062,072	\$ 3,411,347	\$ 3,120,232	\$ 3,612,739	\$ 4,440,582
"BLUE SKY" NEEDS											
None											
SUBTOTAL				\$ -							
TOTAL				\$ 26,918,602		\$ 8,271,631	\$ 4,062,072	\$ 3,411,347	\$ 3,120,232	\$ 3,612,739	\$ 4,440,582
Revised 2/5/2013 adding security; Revised 4/17/13 updating roof info to include completed work at ACHS & MMS; Revised 11/14/13 for 2014 costs adjusted 3% adjustment cost increases of materials and labor;											
* Indicates Projects that may be included in an Energy Performance Contract with Ameresco currently being considered.											



CIP FOR FY14 - FY32											
				2013 moved back 1 year increased 3% for inflation							
DEPARTMENT:	Original	Expected	Replacement	Replacement	Ordered						
SAFETY & SECURITY	Date	Life (A)	Range	Value (2014 \$)	Priority	2015	2016	2017	2018	2019	2020
IMMEDIATE NEEDS											
Upgrade Electronic Entrances to Electric Center Mullion Devices			2014	\$ 43,260		\$ 43,260					
Install Security Vestibules at all Main Entrances			2014	\$ 136,877		\$ 136,877					
Upgrade all locksets to MASTER keyed system with Intruder Locks			2014	\$ 345,667		\$ 345,667					
Install traffic bollards at front entrances and around propane tanks			2014	\$ 21,374		\$ 21,374					
Upgrade all Classroom doors from 1/2 lite glass panels to 6" security glass panels			2015	\$ 791,955			\$ 791,955				
Add additional Security Cameras			2015	\$ 266,770			\$ 266,770				
Upgrade exit door hardware to be more secure			2016	\$ 328,130				328,130			
Replace / Upgrade all exterior doors at MMS			2016	\$ 200,612				200,612			
				\$ -							
				\$ -							
				\$ -							
SUBTOTAL				\$ 2,134,644	\$ -	\$ 547,177	\$ 1,058,725	\$ 528,742	\$ -	\$ -	\$ -
"BLUE SKY" NEEDS											
				\$ -							
SUBTOTAL				\$ -							
TOTAL				\$ 2,134,644	\$ -	\$ 547,177	\$ 1,058,725	\$ 528,742	\$ -		



CIP FOR FY14 - FY32														
DEPARTMENT:	Original	Warranty	Expected	Replacement	Replacement	Ordered							Beyond	Year
ACPS ROOF REPLACEMENTS	Date		Life (A)	Range	Value (2014 \$)	Priority	2015	2016	2017	2018	2019	2020	2021	
IMMEDIATE NEEDS														
AMELON ELEM (New Wing)	1996	10 YRS	15 YRS	2006 - 2011	\$ 90,834				\$ 90,834					
AMELON ELEM (Gym)	2004	20 YRS	30 YRS	2024 - 2034	\$ -								\$ 119,089	2024
AMELON ELEM (Balance of BLDG) Phenolic Insulation	1998	10 YRS	15 YRS	2008 - 2013	\$ 460,000		\$ 460,000							
AMHERST EDUCATION CENTER	2008	20 YRS	30 YRS	2028 - 2038	\$ -								\$ 267,679	2028
ACHS ROOF SECTION 1 (Science Wing)	1995	20 YRS	30 YRS	2015 - 2025	\$ 328,807				\$ 328,807					
ACHS ROOF SECTION 2 (Gyms)	2013	20 YRS	30 YRS	2033 - 2043	\$ -									
ACHS ROOF SECTION 3 (Health WIng)	1997	10 YRS	15 YRS	2007 - 2012	\$ 12,112			\$ 12,112						
ACHS ROOF SECTION 4 (Low Band Area)	2013	20 YRS	30 YRS	2033 - 2043	\$ -									
ACHS ROOF SECTION 5 w/Phenolic Insulation	2006	10 YRS	15 YRS	2016 - 2021	\$ 621,500		\$ 621,500							
ACHS ROOF SECTION 5 (Balance Sec 5)	2006	10 YRS	15 YRS	2016 - 2021	\$ 305,435				\$ 305,435					
ACHS ROOF SECTION 6 (Auditorium)	2006	15 YRS	20 YRS	2021 - 2026	\$ -								\$ 17,993	2021
AMHERST ELEM (New Wing)	2001	15 YRS	20 YRS	2016 - 2021	\$ 78,907				\$ 78,907					
AMHERST ELEM (Gym)	2004	20 YRS	30 YRS	2024 - 2034	\$ -								\$ 119,089	2024
AMHERST ELEM (Balance of Bldg)	1996	10 YRS	15 YRS	2006 - 2011	\$ 411,967				\$ 411,967					
AMHERST MIDDLE (Front Computer Lab)	1997	10 YRS	15 YRS	2007 - 2012	\$ 4,313			\$ 4,313						
AMHERST MIDDLE (Synergistic Labs)	1996	10 YRS	15 YRS	2006 - 2011	\$ 9,175			\$ 9,175						
AMHERST MIDDLE (Gym & Auditorium)	1997	10 YRS	15 YRS	2007 - 2012	\$ 38,170			\$ 38,170						
AMHERST MIDDLE (Balance of BLDG)	1998	10 YRS	15 YRS	2008 - 2013	\$ 672,544			\$ 672,544						



CENTRAL ELEM (Cafeteria & Stage)	1997	10 YRS	15 YRS	2007 - 2012	\$ 12,848			\$ 12,848						
CENTRAL ELEM (New Wing)	2006	10 YRS	15 YRS	2016 - 2021	\$ 90,834					\$ 90,834				
CENTRAL ELEM (Gym)	2004	20 YRS	30 YRS	2024 - 2034	\$ -							\$ 119,089	2024	
CENTRAL ELEM w/Phenolic Insulation	1998	10 YRS	15 YRS	2008 - 2013	\$ 159,500		\$ 159,500							
CENTRAL ELEM (Balance of BLDG)	1998	10 YRS	15 YRS	2008 - 2013	\$ 155,210				\$ 155,210					
ELON ELEM (Gym)	2005	20 YRS	30 YRS	2025 - 2035	\$ -							\$ 119,089	2025	
ELON ELEM (Balance of BLDG)	1996	10 YRS	15 YRS	2006 - 2011	\$ 348,658				\$ 348,658					
MHES (New Wing)	2001	15 YRS	20 YRS	2016 - 2021	\$ 85,329					\$ 85,329				
MHES (Balance of BLDG)	2005	15 YRS	20 YRS	2020 - 2025	\$ -							\$ 478,854	2020	

CIP FOR FY14 - FY32														
DEPARTMENT:	Original	Warranty	Expected	Replacement	Replacement	Ordered							Beyond	
ACPS ROOF REPLACEMENTS	Date		Life (A)	Range	Value (2014 \$)	Priority	2015	2016	2017	2018	2019	2020	2021	Year
IMMEDIATE NEEDS														
MMS SECTION 1 (Boys Locker Room)	1996	10 YRS	15 YRS	2006 - 2011	\$ 28,443			\$ 28,443						
MMS SECTION 2 (Cafeteria & Kitchen)	1996	10 YRS	15 YRS	2006 - 2011	\$ 107,360			\$ 107,360						
MMS SECTION 3 (Band Rm & Girls Locker Rm)	2013	20 YRS	30 YRS	2033 - 2043	\$ -									
MMS SECTION 4 (Balance of BLDG)	1997	10 YRS	15 YRS	2007 - 2012	\$ 538,732			\$ 538,732						
MMS SECTION 5 (Gym & Stage)	2001	15 YRS	20 YRS	2016 - 2021	\$ 90,835				\$ 90,835					
PVES METAL ROOF	2001	20 YRS	30 YRS	2021 - 2031	\$ -								\$ 179,350	2021
PVES (5th Grade Wing)	2002	15 YRS	20 YRS	2017 - 2022	\$ 5,973							\$ 5,973		
PVES (Gym)	2006	20 YRS	30 YRS	2026 - 2036	\$ -								\$ 119,089	2026
PVES (Balance of BLDG)	1998	10 YRS	15 YRS	2008 - 2013	\$ 50,868				\$ 50,868					
TES METAL ROOF	2001	20 YRS	30 YRS	2021 - 2031	\$ -								\$ 179,350	2021
TES (Library)	2002	15 YRS	20 YRS	2017 - 2022	\$ 10,460							\$ 10,460		
TES (Kitchen & Cafeteria)	1996	10 YRS	15 YRS	2006 - 2011	\$ 70,649				\$ 70,649					
TES (Gym)	2007	20 YRS	30 YRS	2027 - 2037	\$ -								\$ 119,089	2027
CNP / TRANS OFFICE BLDG	unknown			2013 - 2015	\$ 17,484			\$ 17,484						
BUS GARAGE / MAINTENANCE SHOP	1980	20 YRS	30 YRS	2010 - 2015	\$ 37,787			\$ 37,787						
SUBTOTAL					\$ 4,844,733		\$ 1,241,000	\$ 1,478,968	\$ 1,456,992	\$ 651,340	\$ -	\$ 16,433	\$ 1,837,758	
"BLUE SKY" NEEDS					\$ -								\$ 6,682,491	
SUBTOTAL					\$ -									
TOTAL					\$ 4,844,733	\$ -	\$ 1,241,000	\$ 1,478,968	\$ 1,456,992	\$ 651,340			\$ 1,837,758	



CIP FOR FY14 - FY32													
				2013 moved back 1 year increased 3% for inflation									
DEPARTMENT:	Original	Expected	Replacement	Replacement	Ordered								
AMHERST COUNTY PUBLIC SCHOOLS Paving & Seal Coating Parking Lots	Date	Life (A)	Range	Value (2014 \$)	Priority	2015	2016	2017	2018	2019	2020		
IMMEDIATE NEEDS													
Amelon Elem School Seal Coat & re mark	1990? - 1995?	The National average is 15.7 years to 1st Overlay (repave)	2005 - 2010	\$ 15,314					\$ 15,314				
Amherst Elem School Seal Coat & re mark	1990? - 1995?		2005 - 2010	\$ 12,120					\$ 12,120				
Central Elem School Seal Coat & re mark	1990? - 1995?		2005 - 2010	\$ 5,018					\$ 5,018				
Elon Elem School Repave & re mark	1990? - 1995?		2005 - 2010	\$ 55,620					\$ 55,620				
Pleasant View Elem School Seal Coat & re mark	1990? - 1995?		2005 - 2010	\$ 5,871					\$ 5,871				
Temperance Elem School Seal Coat & re mark	1990? - 1995?		2005 - 2010	\$ 5,871					\$ 5,871				
Madison Heights Elem School Seal Coat and re-mark	1990? - 1995?		2005 - 2010	\$ 10,952					\$ 10,952				
Amherst Middle School Repave & Mark Front & Rear Lots	1990? - 1995?		2005 - 2010	\$ 60,614					\$ 60,614				
Monelison Middle School Pave Teachers Lot	1990? - 1995?		2005 - 2010	\$ 34,763					\$ 34,763				
Monelison Middle School Seal Coat & re-mark Bus Lot	1990? - 1995?		2005 - 2010	\$ 71,194					\$ 4,635				
ACHS Repave and re mark Senior Lot	1990? - 1995?		2005 - 2010	\$ -					\$ 66,559				
ACHS Repave and re mark Junior Lot	1990? - 1995?		2005 - 2010	\$ 158,587		\$ 158,587							
ACHS Repave and re mark Shop Lots	1990? - 1995?		2005 - 2010	\$ 25,493					\$ 25,493				
ACHS Repave and re mark Gym Lot	1990? - 1995?		2005 - 2010	\$ 121,669			\$ 121,669						
ACHS Seal Coat & re mark Main Front Lots	1990? - 1995?	2005 - 2010	\$ 14,291					14,291					
				\$ -									
				\$ -									
				\$ -									
				\$ -									
SUBTOTAL				\$ 597,376	\$ -	\$ 158,587	\$ 121,669	\$ 122,179	\$ 194,942	\$ -	\$ -		



CIP FOR FY14 - FY32											
DEPARTMENT:	Original	Expected	Replacement	Replacement	Ordered						
ACPS Restroom / Classroom / Locker Renovations	Date	Life (A)	Range	Value (2014 \$)	Priority	2015	2016	2017	2018	2019	2020
IMMEDIATE NEEDS											
ACHS RENOVATE Seven (7) Restrooms	1965	35-50 yrs	2000 - 2015	\$ 136,853							\$ 136,853
ACHS Shop & Locker Room Lockers	1967	35-50 yrs	2002 - 2017	\$ 39,964							\$ 39,964
AMS Locker Rooms	1973	35-50 yrs	2008 - 2023	\$ 109,481							\$ 109,481
MMS Locker Rooms	1976	35-50 yrs	2011 - 2026	\$ 66,789						\$ 66,789	
MMS Restrooms	1976	35-50 yrs	2011 - 2026	\$ 150,539						\$ 150,539	
Amelon Elem Restrooms (14 hallway/classrooms)	1965	35-50 yrs	2000 - 2015	\$ 509,133							\$ 509,133
Amelon Elem Classroom Sinks & Cabinets	1965	35-50 yrs	2000 - 2015	\$ 293,139							\$ 293,139
Amherst Elem Restrooms (12 hallway/classrooms)	1968	35-50 yrs	2003 - 2018	\$ 462,848							\$ 462,848
Amherst Elem Classroom Sinks & Cabinets	1968	35-50 yrs	2003 - 2018	\$ 124,411							\$ 124,411
Central Elem Restrooms (14 hallway/classrooms)	1963	35-50 yrs	1998 - 2013	\$ 509,133						\$ 509,133	
Central Elem Classroom Sinks & Cabinets	1963	35-50 yrs	1998 - 2013	\$ 293,139						\$ 293,139	
Elon Elem Restrooms (hallway/classrooms)	1967	35-50 yrs	2002 - 2017	\$ 607,873						\$ 607,873	
Elon Classroom Sinks & Cabinets	1967	35-50 yrs	2002 - 2017	\$ 124,411						\$ 124,411	
MHES Restrooms (12 hallway/classrooms)	1990	35-50 yrs	2015 - 2030	\$ 462,848							\$ 462,848
MHES Classroom Sinks & Cabinets	1990	35-50 yrs	2015 - 2030	\$ 284,601							\$ 284,601
PVES Restrooms (hallway / classroom)	????	35-50 yrs	2015 - 2030	\$ 231,426						\$ 231,426	
TES Restrooms (primary K & 1)	????	35-50 yrs	2015 - 2030	\$ 106,863						\$ 106,863	
SUBTOTAL			\$ -	\$ 4,513,450	\$ -		\$ -	\$ -	\$ -	\$ 2,090,172	\$ 2,423,278
"BLUE SKY" NEEDS											
			\$ -								
SUBTOTAL			\$ -								
TOTAL			\$ -	\$ 4,513,450	\$ -		\$ -	\$ -	\$ -	\$ 2,090,172	\$ 2,423,278



CIP FOR FY14 - FY32						
DEPARTMENT:	Original	Expected	Replacement	Replacement	Ordered	
ACPS Fluorescent Lighting Upgrades	Date	Life (A)	Range	Value (2014\$)	Priority	2015
IMMEDIATE NEEDS						
MADISON HEIGHTS ELEM SCHOOL (915 + Fixtures)	1990	as of 7/2010 lamps & ballasts no longer mfg.	2013- 2014	\$ 140,450	*	\$ 136,359
MONELISON MIDDLE SCHOOL (1886 + Fixtures)	1975		2013 -2014	\$ 289,496	*	\$ 281,064
SUBTOTAL			\$ -	\$ 429,946	\$ -	417,423
"BLUE SKY" NEEDS						
			\$ -			
SUBTOTAL			\$ -			
TOTAL			\$ -	\$ 429,946	\$ -	\$ 417,423
<p>* = May be included in Performance Contract with Ameresco currently being considered</p>						



CIP FOR FY14 - FY32				2013 moved back 1 year increased 3% for inflation							
DEPARTMENT:	Original	Expected	Current	Replacement	Replacement	Ordered					
ACPS MAINTENANCE VEHICLE REPLACEMENT (EXCLUDES BUSES AND PUPIL TRANSPORTATION VANS)	Date	Life (A)	Mileage	Range	Value (2014 \$)	Priority	2015	2016	2017	2018	2019
IMMEDIATE NEEDS											
TIRE / UTILITY TRUCK W/SNOW BLADE	1983	OUT OF SERVICE			\$ 30,900		\$ 30,900				
1/2 TON PICKUP (GROUNDS)	1994	150000 MILES *	189833	2013 -2014	\$ 28,840		\$ 28,840				
1/2 TON UTILITY VAN (COURIER)	1999	150000 MILES *	179274	2014 - 2015	\$ 24,720		\$ 24,720				
3/4 TON VAN (CNP)	1991	150000 MILES *	188000	2013 -2014	\$ 24,720			\$ 24,720			
3/4 TON UTILITY VAN (PLUMBER)	1998	150000 MILES *	170125	2014 - 2015	\$ 24,720			\$ 24,720			
3/4 TON UTILITY VAN (MECHANIC)	2000	150000 MILES *	171974	2015 - 2016	\$ 24,720			\$ 24,720			
3/4 TON Panel Truck (CARPENTER)	2000	150000 MILES *	140876	2015 - 2016	\$ 30,900						\$ 30,900
1/2 TON PICKUP (MAINTENANCE)	2008	150000 MILES *	56000	2017 -2019	\$ 28,840						\$ 28,840
1 TON UTILITY TRUCK (MAINTENANCE)	2001	150000 MILES *	156033	2017 - 2019	\$ 28,840					\$ 28,840	
COMPACT 4 WHEEL DRIVE PICKUP (MAINTENANCE)	2003	150000 MILES *	93800	2017 - 2019	\$ 22,660						
3/4 TON UTILITY VAN (MECHANIC)	2008	150000 MILES *	26047	2018 - 2020	\$ -						
3/4 TON 4 WHEEL DRIVE PICKUP W/SNOW PLOW (MECHANIC)	1999	150000 MILES *	107000	2016 -2018	\$ 35,020			\$ 35,020			
3/4 TON 4 WHEEL DRIVE PICKUP W/SNOW PLOW (MECHANIC)	2000	150000 MILES *	50000	2018 -2020	\$ 35,020				\$ 35,020		
3/4 TON 4 WHEEL DRIVE PICKUP W/SNOW PLOW (MECHANIC)	2003	150000 MILES *	101000	2016 -2018	\$ 35,020						
1 TON 4 WHEEL DRIVE PICKUP W/SNOW PLOW (MECHANIC)	1999	150000 MILES *	90000	2017 - 2019	\$ 39,140					\$ 39,140	
8 TON DUMP TRUCK WITH SNOW PLOW (MAINTENANCE)	1997	2500000 MILES	195782	2016 -2018	\$ 46,350				\$ 46,350		
8 TON DUMP TRUCK WITH SNOW PLOW (MAINTENANCE)	1999	2500000 MILES	87663	2018 - 2020	\$ 46,350						\$ 46,350
DODGE DURANGO (TRANSPORTATION)	2003	150000 MILES *	130000	2014 - 2015	\$ 36,050				\$ 36,050		
3/4 TON UTILITY TRUCK (IT)	1996	150000 MILES *	167000	2015 - 2016	\$ 25,750					\$ 25,750	
5 PASSENGER CAR (3)	1994	150000 MILES *	191000	2013 -2014	\$ 55,620		18,540	18,540		18,540	
SUBTOTAL				\$ -	\$ 624,180	\$ -	\$ 103,000	\$ 127,720	\$ 117,420	\$ 112,270	\$ 106,090



"BLUE SKY" NEEDS				\$ -							
SUBTOTAL				\$ -							
TOTAL				\$ -	\$ 624,180	\$ -	\$ 103,000	\$ 127,720	\$ 117,420	\$ 112,270	\$ 106,090



CIP FOR FY14 - FY32												
				2013 moved back 1 year increased 3% for inflation								
DEPARTMENT:	Original	Expected	Replacement	Replacement	Ordered							
ACPS Pupil Transportation	Date	Life (A)	Range	Value (2014 \$)	Priority	2015	2016	2017	2018	2019	2020	
IMMEDIATE NEEDS												
Replace 77 PASSENGER SCHOOL BUS (TOTAL OF 3)	1998	15 YRS	2013- 2014	\$ 290,460		\$ 290,460						
Replace 77 PASSENGER SCHOOL BUS (TOTAL OF 5)	1999	15 YRS	2014 - 2015	\$ 484,100			\$ 484,100					
Replace 77 PASSENGER SCHOOL BUS (TOTAL OF 6)	2000	15 YRS	2015 - 2016	\$ 580,920				\$ 580,920				
Replace 77 PASSENGER SCHOOL BUS (TOTAL OF 8)	2001	15 YRS	2016 - 2018	\$ 774,560					\$ 774,560			
Replace 77 PASSENGER SCHOOL BUS (TOTAL OF 5)	2004	15 YRS	2019 - 2021	\$ 484,100						\$ 484,100		
Replace 77 PASSENGER SCHOOL BUS (TOTAL OF 5)	2004	15 YRS	2019 - 2021	\$ 484,100							\$ 484,100	
Additional PASSENGER VAN			\$ 2,014	\$ 23,175		23,175						
				\$ -								
				\$ -								
				\$ -								
				\$ -								
				\$ -								
				\$ -								
				\$ -								
				\$ -								
				\$ -								
				\$ -								
				\$ -								
				\$ -								
SUBTOTAL			\$ 2,014	\$ 3,121,415	\$ -	\$ 313,635	\$ 484,100	\$ 580,920	\$ 774,560	\$ 484,100	\$ 484,100	
"BLUE SKY" NEEDS												
			\$ -									
SUBTOTAL			\$ -									
TOTAL			\$ 2,014	\$ 3,121,415	\$ -	\$ 313,635	\$ 484,100	\$ 580,920	\$ 774,560	\$ 484,100	\$ 484,100	



CIP FOR FY14 - FY32		* Please note some of these items may be part of a Performance Contract with Ameresco currently under consideration									
DEPARTMENT:	Original	Expected	Replacement	Replacement	Ordered						
ACPS HVAC EQUIPMENT	Date	Life (A)	Range	Value (2014 \$)	Priority	2015	2016	2017	2018	2019	2020
IMMEDIATE NEEDS											
AMELON ELEM BAS SYSTEM			2013	\$ 157,304	*	\$ 157,304					
AMELON ELEM Split System A/C Equipment	1996	15 YRS	2011 - 2016	\$ 395,861	*	\$ 395,861					
AMELON ELEM BOILERS (2)	1996	25 YRS	2021 - 2026	\$ 80,788		\$ 80,788					
AMHERST ELEM BAS SYSTEM			2013	\$ 190,420	*	\$ 190,420					
AMHERST ELEM Thru Wall HVAC Equipment	1996	15 YRS	2011 - 2016	\$ 339,310	*	\$ 339,310					
ACHS BAS SYSTEM	1990	15 YRS	2005 - 2010	\$ 473,022	*	\$ 473,022					
ACHS Trane 120 ton Reciprocating Chiller (basement)	1990	20 YRS	2010 - 2015	\$ 173,766	*	\$ 173,766					
ACHS McQuay 245 ton Centrifugal Chiller (basement)	1996	20 YRS	2016 - 2021	\$ 353,448	*				\$ 353,448		
ACHS McQuay 125 Ton Reciprocating Chiller (hillside)	1997	20 YRS	2017 - 2022	\$ 180,330	*					\$ 180,330	
ACHS Carrier 50 Ton Reciprocating Chiller (VOTEK)	1985	20 YRS	2005 - 2010	\$ 72,132	*	\$ 72,132					
ACHS McQuay AHU's (9) (motors, dampers, actuators)	1996	20 YRS	2016 - 2021	\$ 31,161	*	\$ 31,161					
ACHS Cooling Tower (245 ton chiller)	1996	20 YRS	2016 - 2021	\$ 197,931	*				\$ 197,931		
ACHS Trane AHU's (4) (motors, dampers, actuators)	1996	20 Yrs	2016 - 2021	\$ 13,849	*					\$ 13,849	
ACHS Trane AHU's (3) (motors, dampers, actuators)	1990	20 YRS	2010 - 2015	\$ 10,387	*	\$ 10,387					
ACHS Carrier AHU's (4) (motors, dampers, actuators)	1985	20 YRS	2005- 2010	\$ 13,849	*	\$ 13,849					
ACHS Individual Classroom HVAC AHU's (70)	1996	20 YRS	2016 - 2021	\$ 60,591	*				\$ 60,591		
ACHS MAIN STEAM BOILERS (2)	2012	25 YRS	2037 - 2042	\$ -							
ACHS HOT WATER BOILER (1)	2012	25 YRS	2037 - 2042	\$ -							
ACHS VoTech BOILER	1985	25 YRS	2010 - 2015	\$ 51,935	*	\$ 51,935					
AMHERST MIDDLE SCHOOL BAS	1990	15 YRS	2005 - 2010	\$ 206,979	*	\$ 206,979					
AMHERST MIDDLE McQuay 145 Ton Centrifugal Chiller	1996	20 YRS	2016 - 2021	\$ 209,183	*				\$ 209,183		
AMHERST MIDDLE Cooling Tower (145 ton chiller)	1996	20 YRS	2016 - 2021	\$ 117,143	*				\$ 117,143		
AMHERST MIDDLE DX RTU's (4)	1996	15 YRS	2011 - 2016	\$ 28,853	*	\$ 28,853					
AMS Individual Classroom HVAC AHU'S (50)	1996	20 YRS	2016 - 2021	\$ 43,279	*				\$ 43,279		



CIP FOR FY14 - FY32											
				2013 moved back 1 year increased 3% for inflation							
DEPARTMENT:	Original	Expected	Replacement	Replacement	Ordered						
AMHERST COUNTY PUBLIC SCHOOLS Painting	Date	Life (A)	Range	Value (2014 \$)	Priority	2015	2016	2017	2018	2019	2020
IMMEDIATE NEEDS											
Amelon Elem School	2004	10 Yrs - 15 Yrs	2014 - 2019	\$ 58,710				\$ 58,710			
Amherst Elem School	2003	10 Yrs - 15 Yrs	2013 - 2018	\$ 58,710			\$ 58,710				
Central Elem School	1998	10 Yrs - 15 Yrs	2008 - 2015	\$ 55,620			\$ 55,620				
Elon Elem School	2005	10 Yrs - 15 Yrs	2015 - 2020	\$ 48,410					\$ 48,410		
Madison Heights Elem School	2007	10 Yrs - 15 Yrs	2017 - 2022	\$ 61,800						\$ 61,800	
Pleasant View Elem School	2009	10 Yrs - 15 Yrs	2019 - 2024	\$ 23,690							\$ 23,690
Temperance Elem School	2003	10 Yrs - 15 Yrs	2013 - 2018	\$ 23,690				\$ 23,690			
Amherst Middle School	2002	10 Yrs - 15 Yrs	2012 - 2017	\$ 83,518							\$ 83,518
Monelison Middle School	2001	10 Yrs - 15 Yrs	2011 - 2016	\$ 118,450					\$ 59,225	\$ 59,225	
Amherst County High School	1999	10 Yrs - 15 Yrs	2009 - 2014	\$ 248,230			\$ 49,646	\$ 49,646	\$ 49,646	\$ 49,646	\$ 49,646
	2000	10 Yrs - 15 Yrs									
Amherst Education Center	2008	10 Yrs - 15 Yrs	2018 - 2033	\$ 18,540							18,540
SUBTOTAL				\$ 799,368	\$ -	\$ -	\$ 163,976	\$ 132,046	\$ 157,281	\$ 170,671	\$ 175,394
"BLUE SKY" NEEDS											
				\$ -							
SUBTOTAL				\$ -							
TOTAL				\$ 799,368	\$ -	\$ -	\$ 163,976	\$ 132,046	\$ 157,281	\$ 170,671	\$ 175,394



C ACPS Energy Conservation Policy

The ACPS energy conservation policy was adopted in 2009 and has produced positive results. The policy sets requirements for routine steps to be observed district-wide that reduce energy wastage and unnecessary or detrimental energy practices. More details about this appendix can be found in Chapter 5.

MEMO

To: Principals and Supervisors
From: Mark Y. Lineburg, Wayne Cocke, Randy Tschetter, Kim Klien, David Childress, Teresa Crouch, Wendy Kendrick, Matt Schoener, Kelly Holmes, Tim Hoden, Travis Hundt
Date: March 4, 2009
Re: Energy Conservation

Please make every effort to involve all staff (teachers, custodians, cafeteria workers, aides) and students in reducing energy use.

Attached is a division-wide energy usage data with the challenge/goal of a 10% reduction.

Technology

1. At the end of each day shut down all non-essential computers. Once the computer is shut down, please turn off the power strip. Devices such as computers and televisions continue to use electricity even when the power is turned off. This electrical usage can be prevented by turning off the power strip.

Note: Please do not turn off servers, network equipment or the check-in computer. These devices need to continue to operate. In most computer labs there is a switch or switches that kill the power to the entire lab. Please be sure the computer is off before you turn off the switch.

2. Unplug power adapters such as ones used for cell phones or other chargers. These devices draw electricity even when a device is not plugged into it.
3. Print on both sides of paper and turn the quality of print to draft to save on toner and ink.
4. Recycle both ink jet cartridges and toner cartridges to save on each new cartridge purchased.
5. Turn off the following equipment at the end of the day, on weekends and over holidays:
 - Copiers
 - Computer Monitors and if possible the associated CPU's
 - Overhead Projectors and Smart Boards

Maintenance

Guidelines for Operating Lighting Equipment

1. Lights in classrooms should not be turned on during non-instructional time unless needed. In classrooms with adjustable lighting levels, the light should be adjusted to the task. Teachers are asked to make certain that

lights are off when leaving the classroom, even for a short period of time, which would be more than 15 minutes. In rooms with fluorescent tube lights, if the room is going to be vacant for more 15 minutes turn off the lights. (Please note turning fluorescent bulbs off and on excessively shortens the life of the bulb and the ballast, thus the rationale for the 15 minute guideline).

2. Gymnasiums, multi-purpose rooms and cafeteria lights should not be left on unless they are being utilized within 15 minutes. High intensity discharge lighting (HID) will have to be considered on a per school basis. HID lights should not be turned off unless the area is going to be vacant for at least 2 hours. When possible use alternating rows of lighting.
3. In Elementary gymnasiums use alternating rows of lights whenever possible.
4. All outside lights should be turned off during daylight hours.
5. Hallway and commons lighting should be turned off at the end of the instructional day. Incandescent lights should be turned off when the room is vacant. Note: ACPS is in the process of replacing all incandescent lights less than 100 watts with CFL (Compact Fluorescent Lamps).
6. De-lamp unnecessary lighting or over lit areas.
7. Re-lamp areas where more efficient lighting systems are needed. Replace the ballasts in all light fixtures so that more efficient *TB* bulbs can be used. *TB* bulbs will reduce lighting costs 10 to 15 percent
8. Monitor and adjust 4 times a year the setting of timers and function of photo cells for exterior lighting.
9. Check storage closets, custodial closets and other "off the path" areas to make sure lights are turned off.
10. Night custodians should turn lights on only in their work area.

HVAC – Standards for heating and cooling General Use

1. HVAC systems should always be operated in the most economical and efficient way possible and only for the amount of time required to provide the appropriate climate for a special activity. In the fall, heating equipment will be ready to be turned on by October 15. All air conditioning will be turned off by November 1. In the spring, cooling equipment will be serviced and ready to be turned on by March 15. All heating equipment will be turned off by May 1.
2. The HVAC system manager for the buildings with EMS (Energy Management System) controls should monitor weather reports and trends. It is their responsibility to make adjustments to the HVAC control system to compensate for changes in the weather, (i.e., boilers and fans should start later when weather is warmer and earlier when weather is cold and windy).

3. When the temperature is expected to change significantly over a weekend, clocks and the Energy Management System (EMS) controls should be adjusted to provide proper temperatures on Monday morning.
4. Every opportunity to decrease HVAC system operating times should be considered by the system manager. For example, the heating system requirements should be reduced on days of early dismissal, canceled school, inclement weather days, and canceled games and activities.
5. If below-freezing weather is predicted or occurs over a weekend, holiday or vacation period, the custodian and the building supervisor are responsible to verify that adequate minimal night low limit heating is being maintained to protect the building and contents.

School Days

1. On regular school days, the HVAC system time clocks should be adjusted to provide the following temperatures from the time of teaching staff occupancy to the time of last class dismissal in the majority of classrooms in the buildings. Temperatures are measured four feet above floor level on either the wall opposite the heating unit or in the center of the room.

	Winter	Summer
Classrooms (grades 6-12)	68-74 degrees F	73-78
Classrooms (grades K-5)	68-74 degrees F	73-78
Gymnasiums and Locker Rooms	65-74 degrees F	73-78
Offices	68-74 degrees F	73-78
School Shops	65-74 degrees F	73-78
Halls	65-74 degrees F	73-78
Kitchens and Cafeterias	65-74 degrees F	73-78

2. Acceptable temperature deviation from set point is plus or minus two degrees Fahrenheit.
3. It is understood that some schools that were built before the year 2000 do not have an EMS system to control the heating and cooling set points. The above temperatures stated shall be used as a guide for their thermostats.
4. Air-conditioned spaces shall not be cooled below 73 degrees.
5. After class or activity hours, all areas should be set back to a target night low limit setting of 60 degrees F during heating season, when possible. Outside night low limit sensors should be set to provide an inside night low limit temperature of not more than 60 degrees F, when possible.
6. Close doors and windows during the winter and summer months.
7. Window blinds/draperies, if installed, are to be closed at the end of each day.

School Vacation Days, Weekends, and Holidays:

1. On vacation days, weekends, and holidays during heating season when school is not in session, the entire building shall be operated on a target night low limit setting of 60 degrees F, when possible.
2. On workdays when students and teachers are not present during heating season, the entire building shall be operated on a target night low limit setting of 60 degrees F, when possible. Outside night low limit sensors should be set to provide an inside night low limit temperature of not more than 60 degrees F, when possible. Variations for working staff comfort can be made via over-ride controls for specific zones, when possible, and lengths of time, with temperature not to exceed 68 degrees F.
3. If offices are occupied by regularly assigned staff, zoning shall be used in lieu of operating the central heat plan when possible. Maximum thermostat settings for zoned areas shall be the same as school day operation.
4. Normal heat and ventilation may be provided for scheduled activities and athletic contests. If possible, only the area of the activity should be heated and ventilated, and temperature maximums shall be the same as a regular school day.
5. All other energy uses must be approved in advance by the building principals.
6. Install timers on all electrical hot water heaters so that they preheat 45 minutes prior to school opening and shut off when school closes.

Food Services

Recycling

- Recycle cardboard boxes
- Recycle clean #10 cans
- Recycling of student water bottles

Dish machines

- Turn on the booster heater 30 minutes before use of dish machine.
- Only run full loads of dishes through the dish machine.
- Turn off the dish machine and booster heater when not in use.
- Styrofoam trays are only permitted when the dish machine needs repairs or other special circumstances approved by the CNP Supervisor.

Kitchen

- Turn off lights in the stockroom/freezers when not in use.
- Traffic will be minimized in and out of the freezers and refrigerators.
- Verify all equipment is turned off and unplugged, if feasible, before leaving for the day.

Transportation

- Fuelsaving



- Limit idle time to ten minutes for buses and all division vehicles.
- Consolidate bus stops.
- Consolidate trips for maintenance supplies
- Examine routes and switch stops to prevent buses traveling the same road.
- Additional Areas of Savings
 - Use oil from oil changes in oil burning furnace to heat shop.
 - Open outside door whenever possible to prevent using the air conditioning unit in warmer months in the transportation office.
- Transportation Policy for students boarding at the elementary schools in the afternoon.
 - Students are to arrive from a central location.
 - Bus drivers will notify the school when they are two minutes away.
 - School personnel will line up students at exit door when their bus has called.
 - Students will board the bus as soon as it arrives and is in the loading zone.
 - Buses will not return for students who missed the bus.
- Pick up
 - Elementary school principals or bus dispatch will make calls to parents who are not seen at the bus stop. The schools will document who and when this occurs.
 - A letter is to be sent to the parents who habitually are not at the stop. This letter will be sent on the third time the parent is not present. The letter warns that the next occurrence will result in the student(s) being suspended from the bus for one day. Each occurrence thereafter will result in an additional day of bus suspension. After three suspensions, the student(s) may be suspended from the bus for the remainder of the school year.
 - Buses will not return to a drop off point unless it is on the route back to the school unless it is more fuel efficient for the driver to go back to the stop instead of the school.
 - Dispatch will continue to communicate with the school, parents and drivers to ensure that student(s) are delivered safely, and as quickly and efficiently as possible.

Specific School-Wide Strategies

- Make sure books, file folders, storage boxes etc. Are not placed on the top of or in front of the AHU units in the classrooms.
- Discourage and limit the use of personnel heaters personal fans, coffee pots, microwaves, personal refrigerators, etc.
- At night, on weekends and holidays turn off the "booster" hot water heaters in kitchens.

- Keep all exterior windows and doors shut at all times.
- Report immediately any leaking water fountains, sinks, commodes or urinals.

Recycling

- It is a specific goal of the Energy Conservation Committee to establish a plan and method for division wide recycling program.

Student Involvement in Energy Conservation

Green Teams will be established at each school and administrative office building. One staff member will be designated as the coordinator at each site. Major focus of the Green Team will be recycling.

School Specific

- Each school will appoint a Green Team Coordinator which will solicit volunteers from the staff to form a committee to assist with implementation of the program at the school.
- Announce the Green Team program school-wide and provide educational tie-in to conservation, ecology, SOLs. Students understanding the importance of recycling (recycling extends the life of our landfills, saves energy, money and produces fewer carbon emissions) will encourage participation in the program.
- Student will be participants on the Green Team. For example, students from each homeroom could be on the Green Team.
- All members of the school community should be made aware of the school's efforts to recycle.
- Additional duties of the Green Team may include monitoring lights and other electronics, window shades, closing doors, collecting litter, suggesting Earth Day activities, etc.

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

E Recommendations and Commendations

Overall, the consulting team made 50 commendations for exemplary practices in ACPS, and it made 73 recommendations to improve effectiveness and efficiency of division operations.

Of those recommendations, 21 would result in a net cost over five years, and 10 would produce a net savings over five years.

The fiscal impacts of each recommendation are described over five years in the white rows (with costs being represented in red with parentheses and savings in black), and commendations are included in green rows. Blue rows contain subtotals for each functional area, and the final grey rows on the last page of the appendix contain a summary of overall estimated costs, savings, and net fiscal impact.

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	ACPS has effective and efficient school board meetings. The relationship between the superintendent and the school board results in well-thought-out decisions.						
2.2	Improve usage of Pleasant View and Temperance Elementary Schools.	\$0	\$0	\$0	\$0	\$0	\$0
2.3	Improve the central office organization.	(\$83,000)	(\$83,000)	(\$83,000)	(\$83,000)	(\$83,000)	(\$415,000)
2.4	Study the existing positions and responsibilities, the cuts that have been made, and the responsibilities of those individuals. Gradually add positions back to the instructional department as necessary and as the budget allows.	\$0	\$0	\$0	\$0	\$0	\$0
2.5	Develop a backup person for the PowerSchool student information system, and provide the necessary training for both individuals.	(\$6,500)	(\$3,500)	(\$1,500)	(\$1,500)	(\$1,500)	(\$14,500)
2.6	The superintendent has worked to focus the division on its primary mission, which is the delivery of quality instruction to all students.						
2.7	The superintendent, central office staff, and principals are commended for the collegiality and communication displayed as they work to serve the students of Amherst County.						
2.8	Study the cuts made and their impact on workloads, and develop a prioritized list of what will be added back as funding becomes available.	\$0	\$0	\$0	\$0	\$0	\$0
2.9	Encourage the electorate to vote on the issue of an elected versus an appointed school board.	\$0	\$0	\$0	\$0	\$0	\$0
2.10	Continue to work on improving relations with the county board of supervisors.	\$0	\$0	\$0	\$0	\$0	\$0
2.11	The school board and the superintendent have an effective process for maintaining and updating policies.						

Finding	Recommendation/	Estimated (Costs) or Savings					Total Five-Year
2.12	Develop a method of recording processes utilized in high value offices where single individuals hold all of the historical knowledge of how the work is done.	\$0	\$0	\$0	\$0	\$0	\$0
2.13	Implement training for the school board on strategic planning, goal development, and program evaluation.	\$0	\$0	\$0	\$0	\$0	\$0
2.14	Adopt a new style of strategic plan utilizing 'SMART' goals and the balanced scorecard approach.	\$0	\$0	\$0	\$0	\$0	\$0
2.15	Provide training in program evaluation for all central office directors and supervisors, principals and assistant principals, leadership teams, and teacher leaders.	(\$2,000)	\$0	\$0	\$0	\$0	(\$2,000)
2.16	Develop strategies for enhancing parent involvement in ACPS.	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		(\$91,500)	(\$86,500)	(\$84,500)	(\$84,500)	(\$84,500)	(\$431,500)
Chapter 3	Educational Service Delivery						
3.1	The ACPS board and superintendent promote successful educational leadership through well-written policy and an efficient working relationship.						
3.2	Update the ACPS organizational chart to reflect the true job responsibilities of positions and add a full-time mathematics instructional supervisor.	(\$76,320)	(\$76,320)	(\$76,320)	(\$76,320)	(\$76,320)	(\$381,600)
3.3	Review school and division data to determine the academic needs of the system and address them efficiently and effectively to provide direction for the next six years.	\$0	\$0	\$0	\$0	\$0	\$0
3.4	ACPS effectively meets the academic needs of students from Pre-Kindergarten to graduation.						
3.5	Review the needs of each school, assign assistant principals equitably, and restore supporting personnel.	\$0	\$0	\$0	\$0	\$0	\$0



Finding	Recommendation/	Estimated (Costs) or Savings					Total Five-Year
3.6	ACPS annually reviews curriculum and seeks input from teachers on improving it.						
3.7	Hire two mathematics specialists to be shared by those sites under school improvement.	(\$77,440)	(\$77,440)	(\$77,440)	(\$77,440)	(\$77,440)	(\$387,200)
3.8	ACPS awards high school credit to achieving eighth graders who take advanced classes. Students profit from the advanced work and are better prepared for AP classes and dual enrollment at the high school level.						
3.9	Grant teachers administrative access to information in order to perform the tasks formerly completed by administrators.	\$0	\$0	\$0	\$0	\$0	\$0
3.10	ACPS provides exemplary special education services to its students.						
3.11	ACPS provides services for their talented and gifted students beginning with a division-wide screening at second grade and continuing with rescreening in sixth grade, providing multiple opportunities for the identification of and service to advanced students.						
3.12	ACPS provides exemplary and comprehensive ESL support.						
3.13	The division provides a well-planned, spacious, inviting building for the delivery of educational services to the most at-risk students by a dedicated staff in a time of limited resources.						
	Subtotal	(\$153,760)	(\$153,760)	(\$153,760)	(\$153,760)	(\$153,760)	(\$768,800)
Chapter 4	Human Resources						
4.1	The ACPS HR department has performed exemplary work in the areas of personnel, as measured by established HR metrics for performance and effectiveness.						
4.2	Implement a full-scale document imaging system for record storage, retrieval, and maintenance.	(\$10,000)	(\$10,000)	\$0	\$0	\$0	(\$20,000)
4.3	Reduce by half the current funding structure of the tuition reimbursement program because of low need or participation in the program.	\$12,262	\$12,262	\$12,262	\$12,262	\$12,262	\$61,310
4.4	Discontinue providing the employee assistance program since participation rate is low.	\$14,400	\$14,400	\$14,400	\$14,400	\$14,400	\$72,000
4.5	Transfer the responsibility of paying the teacher license renewal fee to the individual ACPS teacher.	\$2,050	\$2,050	\$2,050	\$2,050	\$2,050	\$10,250
4.6	Reformat and review content of current job descriptions, update missing information, and publish them online.	\$0	\$0	\$0	\$0	\$0	\$0

Finding	Recommendation/	Estimated (Costs) or Savings					Total Five-Year
4.7	Provide an online employee handbook.	\$0	\$0	\$0	\$0	\$0	\$0
4.8	The ACPS board, superintendent, principals, and the leadership team are commended for the abundance of opportunities they provide to show their appreciation of the ACPS employees and to recognize them for their service.						
4.9	Reinstitute the plan to increase the number of teachers in the ACPS division who become National Board Certified Teachers even though no division funding is available.	\$0	\$0	\$0	\$0	\$0	\$0
4.10	The commitment of employees to Amherst schools and its students as measured simply by their longevity or time-in-service is truly laudable.						
4.11	Ensure transparency of the budgeting and use of professional or staff development funds by extrapolating specific training planned from individual school improvement plans.	\$0	\$0	\$0	\$0	\$0	\$0
4.12	Despite having limited funding available for professional development, ACPS principals and central office instructional leadership teams are commended for their obvious commitment to staff development or teacher training in compliance with the SIP planning process and its ultimate effect on student achievement.						
4.13	Revise the administrative salary schedule for 2013-14 to ensure that all job titles or positions are listed next to the salary level and remove positions listed that no longer exist in the administrative organizational structure.	\$0	\$0	\$0	\$0	\$0	\$0
	Subtotal	\$18,712	\$18,712	\$28,712	\$28,712	\$28,712	\$123,560
Chapter 5	Facilities Use and Management						
5.1	Design and implement a continuous five-year facilities master planning protocol that supports Amherst County and ACPS in working cooperatively, diligently, transparently, and realistically on planning and funding all aspects of facilities use and management.	(\$100,000)	\$0	\$0	\$0	(\$50,000)	(\$150,000)

Finding	Recommendation/	Estimated (Costs) or Savings					Total Five-Year
5.2	Prepare a new policy on minimum expenditures for preventive maintenance and a new policy on maximum permissible deferred maintenance for review and approval by the board of education.	\$0	\$0	\$0	\$0	\$0	\$0
5.3	ACPS has an exemplary community use of facilities program, given the relatively small size of its school division.						
5.4	The ACPS maintenance staff demonstrates an unyielding commitment and dedication to maintaining the facilities of the school division.						
5.5	ACPS has used its in-house expertise to prepare a realistic and actionable CIP list on an annual basis since 2009.						
5.6	Fund fully reactive and preventive maintenance at best practice levels.	(\$1,791,241)	(\$1,891,241)	(\$1,891,241)	(\$1,891,241)	(\$1,841,241)	(\$9,306,205)
5.7	Contract with an experienced architectural and engineering firm to perform an initial building condition assessment as well as an update every five years.	\$0	\$0	\$0	\$0	\$0	\$0
5.8	Establish a roving preventive maintenance team consisting of four additional maintenance tradespeople and technicians.	(\$179,614)	(\$179,614)	(\$179,614)	(\$179,614)	(\$179,614)	(\$898,070)
5.9	Reinstate the full-time painter position.	(\$44,903)	(\$44,903)	(\$44,903)	(\$44,903)	(\$44,903)	(\$224,515)
5.10	Create and fill three new custodial positions.	(\$86,199)	(\$86,199)	(\$86,199)	(\$86,199)	(\$86,199)	(\$430,995)
5.11	Establish a chief custodian position reporting to the maintenance director.	(\$38,043)	(\$38,043)	(\$38,043)	(\$38,043)	(\$38,043)	(\$190,215)
5.12	ACPS custodians are commended for their consistent cleaning of school facilities despite being moderately understaffed.						
5.13	Select Option III of the proposed AMERESCO performance contract.	\$0	\$0	\$0	\$0	\$0	\$0
5.14	ACPS has implemented an effective energy conservation policy that has operated with excellent results for over five years.						
5.15	Implement the security package detailed in the CIP of November 13, 2014.	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		(\$2,240,000)	(\$2,240,000)	(\$2,240,000)	(\$2,240,000)	(\$2,240,000)	(\$11,200,000)
Chapter 6	Financial Management						
6.1	The ACPS CFO performs the majority of the finance functions of the division without any support staff and is well respected by all levels of division staff and county administrators.						

Finding	Recommendation/	Estimated (Costs) or Savings					Total Five-Year
6.2	Add one financial position to assist the CFO to enable improvements to internal controls and allow the CFO to complete required financial duties within reasonable working hours.	(\$40,600)	(\$40,600)	(\$40,600)	(\$40,600)	(\$40,600)	(\$203,000)
6.3	The division effectively for maintains an up-to-date staffing list of authorized positions.						
6.4	Transfer the payroll and benefits coordinator from human resources to the finance department to improve internal controls and oversight of the payroll function.	\$0	\$0	\$0	\$0	\$0	\$0
6.5	The division is working with the county to require mandatory direct deposit of employee pay, which will increase efficiency and reduce processing cost.						
6.6	Develop a comprehensive standard form to document employee compensation and other changes to employee data including new hires and changes to existing employees.	\$0	\$0	\$0	\$0	\$0	\$0
6.7	Review year-end balances remaining in schools' allocated funds and return excess balances to the school board.	\$157,955	\$0	\$0	\$0	\$0	\$157,955
6.8	Require schools to submit monthly activity fund reports that include bank reconciliations to the finance office in a timely manner and develop guidelines for finance staff to review reports for internal control purposes.	\$0	\$0	\$0	\$0	\$0	\$0
6.9	ACPS prepares a detailed budget document and places it on the division's website for easy access and transparency.						
6.10	Improve the division's budget document by adding additional information and the use of graphs and charts.	\$0	\$0	\$0	\$0	\$0	\$0
6.11	Improve the division's budget calendar by adding more detail and identifying the responsible party for the activity.	\$0	\$0	\$0	\$0	\$0	\$0



Finding	Recommendation/	Estimated (Costs) or Savings					Total Five-Year
6.12	Develop a procedures manual for activity funds and train staff on the standard approved processes for managing these activity funds.	\$0	\$0	\$0	\$0	\$0	\$0
6.13	Identify all critical financial functions and document procedures in a comprehensive procedures manual.	\$0	\$0	\$0	\$0	\$0	\$0
6.14	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
6.15	Develop desk procedures for the important duties performed by each staff member performing finance-related duties and cross-train them in each other's duties.	\$0	\$0	\$0	\$0	\$0	\$0
6.16	Develop a process to verify the accuracy of school division fixed assets shown in the county's comprehensive annual report.	\$0	\$0	\$0	\$0	\$0	\$0
6.17	Develop a listing of fixed asset items valued less than \$5,000 that should be controlled, a process to manage them, and establish a set of fixed asset policies to provide the division with better oversight of its investment in fixed assets.	(\$4,500)	\$0	\$0	\$0	\$0	(\$4,500)
6.18	The division uses the services of the county's purchasing agent and consolidates purchasing needs to realize cost saving.						
6.19	Document purchasing procedures for division staff and distribute to all employees with purchasing duties.	\$0	\$0	\$0	\$0	\$0	\$0
6.20	Bid for child nutrition maintenance services on an annual basis and develop a process to better monitor and validate invoices.	\$0	\$0	\$0	\$0	\$0	\$0
Subtotal		\$112,855	(\$40,600)	(\$40,600)	(\$40,600)	(\$40,600)	(\$49,545)

Finding Chapter 7	Recommendation/ Transportation	Estimated (Costs) or Savings					Total Five-Year
7.1	Hire one additional office support person so that the coordinator and dispatcher can be freed from some of their routine tasks to focus on areas that are more specific to their positions.	\$0	\$0	\$0	\$0	\$0	\$0
7.2	The transportation staff has taken the appropriate steps to explain and inform each awarded contract to the employees.						
7.3	Increase the number of computers available to transportation staff and require staff to use them procedurally and routinely.	\$0	\$0	\$0	\$0	\$0	\$0
7.4	Coordinate training from the special needs department on each student's exceptionality and IEP.	\$0	\$0	\$0	\$0	\$0	\$0
7.5	Bus drivers and the transportation coordinator create and maintain route change logs that preserve a record of the most up-to-date route plans, simplifying future training of drivers and ensuring universal understanding of route plans.						
7.6	The transportation department has good procedures for keeping buses clean inside and out.						
7.7	The division frequently checks the status of all commercial drivers' licenses issued to bus drivers.						
7.8	The transportation staff ensures each bus driver is trained properly and routinely.						
7.9	The transportation department has a policy and procedure in place to rectify any possible lost contract time for bus drivers.						
7.10	The transportation department provides additional training on all types of buses to its drivers.						
7.11	The ACPS transportation department uses automated routing software in ways that exceed the industry standard.						
7.12	Provide the dispatcher with formal training on the routing software.	\$0	\$0	\$0	\$0	\$0	\$0
7.13	The transportation division has implemented a method for processing field trips in an efficient manner.						
7.14	The transportation department continues to provide VDOE and VDMV training conducted by certified trainers and testers.						
7.15	The transportation department continues to foster safety in all areas.						
7.16	Develop a bus replacement policy and identify funding needs for budget planning.	(\$700,000)	(\$700,000)	(\$300,000)	(\$300,000)	(\$300,000)	(\$2,300,000)
7.17	Purchase a shed or shipping container to house some of the items currently stored in the work bay area.	(\$2,500)	\$0	\$0	\$0	\$0	(\$2,500)
7.18	The transportation department mandates frequent and routine preventative maintenance inspections.						
7.19	The transportation maintenance department has a controlled and efficient purchasing plan for parts and services.						

Finding	Recommendation/	Estimated (Costs) or Savings					Total Five-Year
7.20	Send mechanics to mechanic certification classes.	(\$2,500)	(\$2,500)	(\$2,500)	(\$2,500)	(\$2,500)	(\$12,500)
	Subtotal	(\$705,000)	(\$702,500)	(\$302,500)	(\$302,500)	(\$302,500)	(\$2,315,000)
Chapter 8	Technology Management						
8.1	The ACPS superintendent, director of academics, and technology staff are commended for recognizing the importance of planning and building a strong cohesive instructional technology infrastructure for the division.						
8.2	The ACPS ITRT team is commended for hosting the Summer Technology Academy (STA), offering teachers and staff innovative strategies for integrating technology in the curriculum.						
8.3	Reestablish the ITRT position that was lost in 2011-12 due to budget cuts.	(\$60,500)	(\$60,500)	(\$60,500)	(\$60,500)	(\$60,500)	(\$302,500)
8.4	Form a technology committee of ACPS and county financial, payroll, and technology departments to investigate methods for reducing paper flow and rekeying of data between the two systems.	\$0	\$0	\$0	\$0	\$0	\$0
8.5	ACPS has developed a robust educational technology plan that is aligned with the state-required SOQ and the division's multi-year strategic plan.						
8.6	Fund a technology plan that allows for increased technology usage.	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)	(\$20,000)	(\$100,000)
8.7	Create standard operation procedures for mission critical areas in technology.	\$0	\$0	\$0	\$0	\$0	\$0
8.8	Develop a comprehensive disaster recovery plan that will ensure the ability to resume critical data functions in the event of a catastrophic loss.	(\$50,000)	\$0	\$0	\$0	\$0	(\$50,000)
8.9	Refresh network infrastructure equipment at Madison Heights and Central.	(\$32,000)	\$0	\$0	\$0	\$0	(\$32,000)
8.10	The technology department staff is commended for the support they provide to the users.						
	Subtotal	(\$162,500)	(\$80,500)	(\$80,500)	(\$80,500)	(\$80,500)	(\$434,500)
Chapter 9	Food Services						
9.1	Increase the division's food service productivity.	\$15,640	\$31,280	\$31,280	\$31,280	\$31,280	\$140,760

Finding	Recommendation/	Estimated (Costs) or Savings					Total Five-Year
9.2	Review the job responsibilities of the administrative assistant and update the position description.	\$0	\$0	\$0	\$0	\$0	\$0
9.3	The child nutrition supervisor understands the importance of training and certification for child nutrition program staff and encourages her staff to become certified with SNA by providing a financial incentive and opportunities to maintain certification status.						
9.4	The child nutrition department has a policy, procedure, and information manual that is online and updated frequently.						
9.5	ACPS has closed campuses at all schools during meal times and accommodates all students with enough seating and adequate time to eat.						
9.6	Charge the school nutrition department indirect costs at the restricted rate.	\$88,833	\$88,833	\$88,833	\$88,833	\$88,833	\$444,165
9.7	Reduce child nutrition costs at Pleasant View and Temperance Elementary Schools.	\$22,263	\$22,263	\$22,263	\$22,263	\$22,263	\$111,315
9.8	Pay the cost of operating the division vehicle used by the maintenance/delivery person for school nutrition program functions from the child nutrition fund.	\$3,000	\$3,000	\$3,000	\$3,000	\$3,000	\$15,000
9.9	Prepare monthly financial reports for each school site.	\$0	\$0	\$0	\$0	\$0	\$0
9.10	ACPS has an exceptional preventive maintenance program for kitchen equipment.						
9.11	Develop a database of all equipment in the kitchens by type, age, frequency of repair, and condition.	\$0	\$0	\$0	\$0	\$0	\$0
9.12	The division has the necessary technology infrastructure in place to support the kitchens and lunchrooms.						
9.13	Develop strategies to increase the number of students completing applications for free and reduced-price meals.	\$50,591	\$50,591	\$50,591	\$50,591	\$50,591	\$252,955
9.14	Develop strategies for increasing student participation rates, focusing first on breakfast.	\$0	\$22,278	\$44,556	\$66,834	\$66,834	\$200,502
9.15	The child nutrition department uses student NAC groups to provide feedback on the meals program and educate students on nutrition and good health.						
9.16	The child nutrition department uses two walk-in freezers to accommodate storage of USDA commodities until they are needed for meal production in school kitchens. This decision has resulted in cost savings and efficiencies in ordering and inventory.						
Subtotal		\$180,327	\$218,245	\$240,523	\$262,801	\$262,801	\$1,164,697
Total savings		\$366,994	\$246,957	\$269,235	\$291,513	\$291,513	\$1,466,212
Total costs		(\$3,407,860)	(\$3,313,860)	(\$2,901,860)	(\$2,901,860)	(\$2,901,860)	(\$15,427,300)
Total net savings and costs		(\$3,040,866)	(\$3,066,903)	(\$2,632,625)	(\$2,610,347)	(\$2,610,347)	(\$13,961,088)