



Custodial Services Efficiency Report

February

2015

Updated June 2015

A review of custodial staffing levels, the evening Custodial Supervisors, and the efficiency of the organizational structure to identify improvement strategies.

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Executive Summary

Albemarle County Public Schools places a high emphasis on building cleanliness and recognizes the importance of each custodian's efforts toward the success of our students. First and foremost, our students are the most important client we serve; a philosophy that at times may be challenging to remember! Evidence is ever-present that our students' success in the classroom depends on a clean, sanitary environment.

In this report, Custodial Services at Albemarle County Public Schools compares itself to other counties, cities, and standards to ensure the most accurate assessment of our services. We analyze the number of full-time employees, the organizational structures, cost, and customer satisfaction. Analyzing our services guarantees that dollars are spent efficiently and strategically, while still providing a high level of service.

To start, we show how our Custodial Services developed into the structure we have today. We then progress to the positions in our structure, and a glimpse at of each of our schools staffing and square footage to show what Albemarle County looks like at this time. Following that is the overall customer satisfaction and level of cleanliness, measured from interviews and inspections done at each school. It is important to recognize that our Custodians serve a multitude of clients; students, teachers, parents, bus drivers, cafeteria workers, maintenance workers, and a host of community usage groups. We go on to describe standards and formulas used by different associations and districts to assess custodial staffing at each school. Each formula and standard has pros and cons, and it is important to see how each compares to the other and to our current staffing. Furthermore, we study and compare organizational structures of our peer counties and cities. This allows us to see if we are structuring our organization, and dividing responsibility, efficiently. Lastly, our budget was compared to other districts. After pulling data online, it was found that we our cost per square foot is in line with most of our peer districts.

To conclude, our custodial staffing falls at about average when compared to other standards, having neither too many nor too few custodians. Our organizational structure is one of the standard ways to structure a custodial department, as shown when compared to other counties and cities; however some changes could be made to streamline responsibilities. After studying all facets of the analysis, Albemarle County Public Schools is in good standing.

Internal Assessment

Albemarle County Public Schools Building Services Custodial Division has a high approval rating from our clients, which include administration, teachers, students, parents, and staff. The current centralized management structure sprang from general dissatisfaction of school cleanliness in the past. Centralized management is an organizational structure in which there is one central figure (Building Services) handling and overseeing the operation. From there, different responsibilities are dispersed through Building Managers and Custodial Supervisors, Lead Custodians, and Custodians. This provides consistency in the same practices, policies, and cleanliness throughout all Albemarle County Public Schools. The evolvement of a centralized management structure started back in 1988, as Albemarle High School, Broadus Wood, and Red Hill Elementary became centralized under Building Service's management. The other schools followed in quick succession, completely voluntarily (new construction was the exception).

When Albemarle County functioned as a decentralized organization, the Principal of each school ran their custodial services, and staffing was excessive during the daytime. This created the necessity of realigning schedules, as effective building sanitation occurs during the least percentage of occupied time. The decision was made to create a Lead Custodial position, scheduled during the daytime. This choice reflected the need to staff with individuals that could multi-task, prioritize, handle administrative duties, and display a higher communication skill set. Subsequently, the Custodial staff shift started the end of the school day. Custodial assignments were originally created by using time values based on the International Sanitary Supply Association (ISSA) Cleaning Times. The ISSA Cleaning Times list a wide variety of cleaning tasks with correlating time values and are a foundation for most custodial staffing standards, allowing organizations to figure out how much time it takes to clean specific areas. The frequency of task and associated time values were used to establish staffing.

While sanitation and building appearance dominates our primary duties, many other tasks are associated and expected from the Custodial department. Non-cleaning tasks are a significant factor in customer satisfaction. The word Custodian comes from the Latin word *custos*, meaning guardian. Our Lead Custodians are indeed building caretakers as they perform a multitude of duties. These tasks include security (building opening/closing), responding to faculty and staff requests, work order management, assisting with fire and tornado drills, minor maintenance duties, floor restoration, snow removal, grounds maintenance (immediate perimeter), function

set-up, light re-tubing, and many others. Although outside of the realm of sanitation, these tasks are essential to a school's operation.

With the exception of smaller elementary schools (less than 33,000 square feet), most routine cleaning is performed after school hours for safety and effectiveness. Elementary and Middle schools each have one day custodian, who is the Lead Custodian for that school. The Lead Custodian works, with few exceptions, the entire shift without assistance. In small elementary schools, the Lead completes routine cleaning prior to the start of the school day and/or after school hours (it is important to recognize a skewed scale when viewing smaller elementary school assignments, as factoring in the Lead shows a lower square footage cleaning assignment for the night time shifts). The Lead Custodian performs policing assignments to maintain the appearance and sanitation of the school throughout the day. Policing includes checking/cleaning restrooms throughout the day, cleaning exit areas, cleaning the front entrance, dust mopping halls, and spot cleaning walls. Along with policing, Leads clean the school's cafeteria (kitchen responsibilities vary). Most school's cafeterias are cleaned at least 2, if not 3, times per day due to breakfast programs, lunch, and after school programs. For a more comprehensive idea of the duties of a Lead Custodian, here is a list of other daily tasks performed:

- Opens school building;
- Raises national and state flag;
- Polices school grounds;
- Checks school for cleanliness;
- Manages work order submissions and either addresses in-house or refers to Building Services via MP2 software;
- Interfaces with contractors, fire inspectors, trades persons, outside agencies;
- Responds via 2 way radio to address urgent situations occurring throughout the day;
- Receives deliveries and distributes material as requested;
- Ensures workrooms are stocked with copy paper;
- Maintains grounds around immediate school perimeter;
- Light replacement;
- Staff timesheet review/submission;
- Clean school cafeteria;
- Clean kitchen (some larger school's kitchens are assigned to PM staff);
- Perform minor maintenance.

Some cleaning is completed during the school day to maintain appearance and sanitation, but a majority of cleaning is completed by the night shift custodians.

The night crews, who come in after school dismissal, are supervised by the three Regional Supervisors. Each supervisor also has about 8 schools (elementary and middle) and the project and relief team (“Floating Crew”) to oversee. They manage all personnel issues, equipment repair, employee training, and maintain quality control. Additionally, they are instrumental in maintaining communication relating to policies, standards of conduct, time/attendance, and other related items. Additionally, Custodial Supervisors manage daily substitution needs. The regular duties of Custodial Supervisors are as follows:

- Performs regular building inspections to ensure safe and sanitary conditions;
- Provides periodical performance reviews for AM and PM staff;
- Trains custodial staff on proper procedures, chemical usage, equipment usage and safety procedures; uses on-line training modules, tests employee’s comprehension, gathers data
- Inventories supplies, insures acquisition and delivery;
- Schedules daily work assignments;
- Schedules project work;
- Processes and reports maintenance requests;
- Counsels and motivates employees;
- Corrects deficiencies and takes corrective action when appropriate;
- Inspects equipment for cleanliness and safe operation;
- Orientates employees to new chemicals and equipment.
- Ensures Building Rentals are scheduled with appropriately staffed personnel
- Coaches and directs staff in meeting key deadlines for summer cleaning projects

It is essential to note the relationship and the different levels of authority relative to the Leads and Custodial Supervisors. Similar to a school sports team, a Lead acts as the Captain of the team, guiding their unit and being instrumental in communication and performance. The Custodial Supervisor, similar to the position of a coach, has the actual authority to manage and enact discipline when necessary. They are responsible for the team as a whole, and their overall performance. The Building Managers for the high schools also take on the part of the coach, but at a somewhat higher level.

The high schools function slightly different, due to the size and complexity of their operation. Albemarle and Monticello High schools have Building Managers on site working during the day, along with 2-3 day shift custodians. Building Managers are generally responsible for similar tasks associated with Custodial Supervisors. The main difference is that the Building

Managers are responsible for a higher level of complexity due to greater square footage, number of programs, and volume of people they interact with. Each school has a Custodial Supervisor present for the night shift. Western Albemarle High School has a Custodial Supervisor present during the day (along with a couple of day shift custodians), and a Lead Supervisor present for the evening shift. Generally speaking, the size of the school adds to the complexity of the operation. Additionally, high schools have a greater need for custodial assistance with athletic programs, school plays, Booster/PTO events, and Building Rentals.

Albemarle County employs a Floating Crew alongside our regular custodians, to fill in at schools when others are on leave (vacation, sick, FMLA, etc.). At the present moment there are 5 members of the Floating Crew. According to an analysis done by Purdue University (Review and Assessment of Custodial Services West Lafayette Campus, 2010), one way to figure out Floating Crew staffing is to determine an average amount of leave per employee, multiply it by how many employees you have, and divide that number by the number of contracted hours each year that a full time floating crew member would work. For example, Perdue University states that about 217 hours (27 days) of Vacation time, Sick time, Holiday time, and Family Medical Leave is used each year, per person. This would mean that Albemarle County, with 117.14 custodians, would need about 12 custodians on the floating crew (a full-time ACPS employee works 2,080 hours per year) to substitute for absences ($117.14 \times 217 = 25,419.38 \div 2080 = 12.22$). We adjusted this formula to have fewer absences (10 days of vacation, 5 days of sick time, and 3 days of FMLA, or 144 hours), as not everyone would need 27 days of leave each year and floating crew would not need to fill in on holidays. Using the adjusted leave in the Floating Crew staffing formula, this would lead to around 8 custodians on the floating crew. While that number is ideal, Building Services balances this out by employing temporary custodians to work on an as-needed basis.

Albemarle County Public Schools is made up of 16 Elementary Schools, 5 Middle Schools, 3 High Schools, 1 Charter High School, and 1 Prep/Special Education School- for a total of 26 schools. Shown in Figure 1 is a breakdown of the total full time employees (FTE) at ACPS (full data in Appendix A).

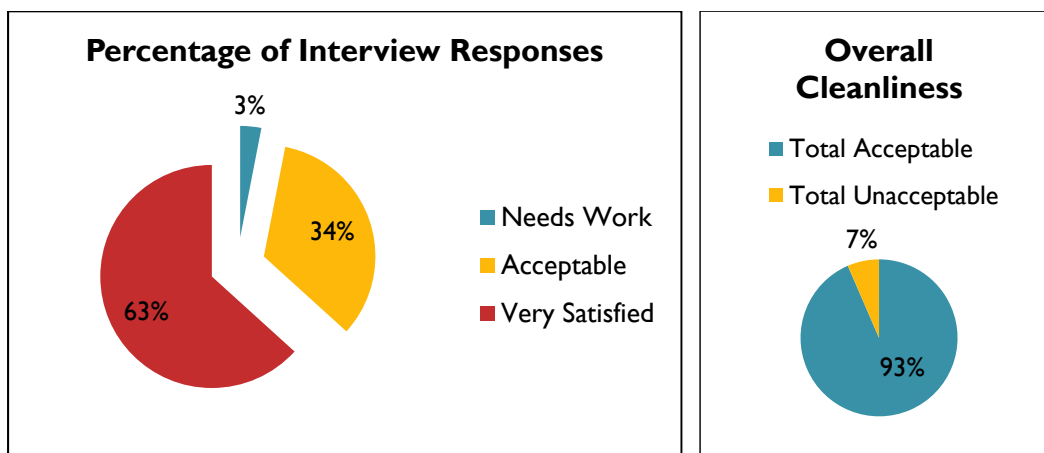
School	Area (ft ²) (including Trailers)	TOTAL FTE	# of Teachers	# of Pupils**
Agnor Hurt	72,756.00	4.00	43.00	503.00
Baker-Butler	84,365.00	4.00	47.00	623.00
Broadus Wood	49,852.00	3.00	22.00	310.00
Brownsville	90,550.00	5.50	49.00	725.00
Cale	92,307.00	5.00	57.00	666.00
Crozet	54,142.00	3.50	26.00	330.00
Greer	99,158.00	4.75	55.00	599.00
Hollymead	68,437.00	4.00	36.00	500.00
Meriwether	60,450.00	3.25	29.00	427.00
Murray Elem	43,057.00	3.00	19.00	260.00
Red Hill	32,950.00	2.00	17.00	170.00
Scottsville	34,954.00	2.12	17.00	185.00
Stone Robinson	71,100.00	3.50	36.00	435.00
Stony Point	42,500.00	3.00	21.00	248.00
Woodbrook	53,366.00	3.63	30.00	335.00
Yancey	29,230.00	2.00	14.00	135.00
Burley	123,626.00	5.00	44.00	596.00
Henley	113,019.00	5.75	50.00	822.00
Jouett	93,271.00	4.75	54.00	589.00
Sutherland	94,440.00	4.50	42.00	582.00
Walton	98,340.00	4.00	34.00	354.00
Albemarle	341,703.00	14.63	147.00	1,952.00
Monticello	249,195.00	11.00	84.00	1,086.00
Western	192,754.00	8.63	74.00	1,034.00
Murray High	29,415.00	1.63	11.00	109.00
Prep/Ivy	20,000.00	1.00	15.00	up to 75
TOTALS:	2,334,937.00	117.14	1,073.00	13,575.00
Floating Crew		5.00	**Includes Preschool & Charter Schools	
Regional Supervisors		2.80		
	Total FTE	124.94		

Figure 1

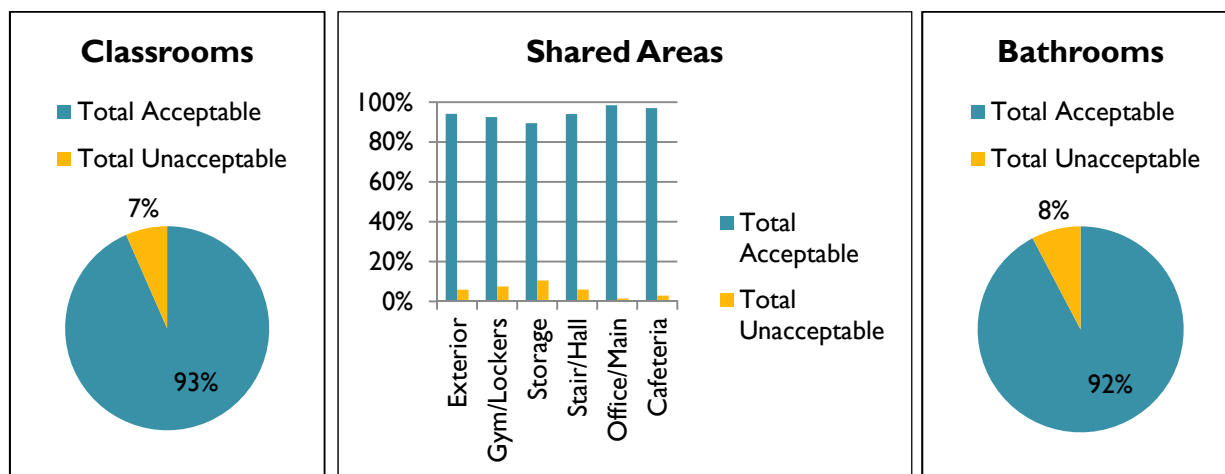
Inspections and Interviews

Inspections are conducted on a frequent basis, at varying levels of detail, at each school in Albemarle County. Individual custodial areas are inspected and recorded by supervisors formally and informally. Currently, CompuClean® software is utilized to aide in maintaining individual inspection scores and providing aggregate data. Overall inspections of the schools, conducted by the Assistant Director of Custodial Services, are completed bi-annually. Along with the overall inspections, an interview is conducted with each principal to assess their needs, see what needs improving, and how they believe the custodial staff is doing. This multi-faceted approach lends toward a high level of quality control and subsequent customer satisfaction.

Below, you can see a snapshot of these inspections and interviews that have been conducted over the past 6 months, from July 2014 to present day. The chart labeled “Percentage of Interview Responses” shows the general responses from Principals that were interviewed about their schools. For each question asked, the responses were tallied as “needs work”, “acceptable”, and “very satisfied”. Overall, 97% of all aspects questioned received at least an “acceptable” response, and 63% of all responses were “very satisfied”.



The chart labeled “Overall Cleanliness” depicts the total responses from all surveyed schools and all areas inspected. As you can see, Albemarle Custodial Services takes cleanliness very seriously, and, while there are some areas that need some improvement, the majority of our schools are at above average levels of cleanliness. The types of areas surveyed are below, broken down into “Classrooms”, “Bathrooms”, and “Shared Areas”. Shared Areas include the cafeteria, gym, locker rooms, offices, etc.



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External Assessment

Association of Physical Plant Administrators

APPA guidelines for custodial staffing are based off of cleanable square footage per custodian, per day, based on activities for each major room (gym, cafeteria, classrooms, halls, etc.). The amount of cleanable square footage per custodian depends on the desired level of cleanliness. APPA has 5 different levels of cleanliness, ranging from Level 1 (spotless) to Level 5 (neglect) (full descriptions in Appendix B). A custodian cleaning at a Level 1 will clean less square feet in a day than one cleaning at a Level 5, due to the thoroughness and attentiveness of the required cleaning. Conducting an analysis based on APPA standards is one of the more thorough ways to know exactly how many custodians it would take to clean each school. To be completely accurate, each area would need exact cleanable square footage. These standards don't give you an idea of the average square footage per custodian at each level (for example 18,000-20,000 sq.ft./custodian for a certain level), presumably to account for differences and ensure more accuracy in each school/district. Although FTE per school assumes Lead Custodians are included, it does not adequately represent all the non-cleaning tasks necessary in most school divisions; therefore square footage of cleanable square feet can be skewed.

The assessments made in the following chart are based off actual square footage (gyms, auditoriums, cafeterias, media centers) and percentages from an example school at each level. For example, Baker-Butler Elementary was chosen for the elementary level. The actual cleanable square footage was calculated for each area, which then led to the general percentages (e.g. 24% of the total cleanable area for hallways) at the other elementary schools. The following chart depicts the approximate FTE's needed for each school according to Level 2 and Level 3 cleaning.

School	FTE's Needed	
	Level 2	Level 3
Agnor Hurt	3.78	3.23
Baker-Butler	4.43	3.77
Broadus Wood	2.57	2.19
Brownsville	4.75	4.1
Cale	4.85	4.17
Crozet	2.83	2.44
Greer	5.21	4.46
Hollymead	3.60	3.1
Meriwether	3.17	2.7
Murray Elem	2.22	1.89
Red Hill	1.74	1.5
Scottsville	1.82	1.57
Stone Robinson	3.74	3.22
Stony Point	2.21	1.89
Woodbrook	2.79	2.4
Yancey	1.50	1.25
Burley	5.84	5.07
Henley	5.35	4.66
Jouett	4.39	3.79
Sutherland	4.45	3.85
Walton	4.55	3.92
Albemarle	16.72	13.41
Monticello	12.09	9.47
Western	9.27	7.27
Murray High	1.35	1.12
Prep/Ivy	0.95	0.8
	TOTAL	TOTAL
	116.17	97.24

Figure 2

Florida Department of Education

The Florida Department of Education has one of the simplest formulas. It divides a schools' square footage by 19,000 (square footage a custodian would clean in an 8 hour shift), plus a Full-Time Employee (FTE) modifier depending on whether the school is an elementary (+.50 FTE), middle (+.75 FTE), or high school +1.00 FTE). For example: an elementary school that is 100,000 square feet will be divided by 19,000 (cleanable square footage per custodian), equaling 5.26 custodians. The modifier is still needed, so .50 (the modifier for elementary schools) is added, giving this school 5.76 custodians needed to clean the school each day. This formula assumes that the custodian will be able to achieve an APPA Level 2 cleaning.

The Florida Department of Education's *Design and Research* (p.58) states that "these staffing formula modifiers... are intended to provide a more accurate indication of the custodial labor force needed at various types of school facilities (and) when used in this manner, the differences in facility type, size, complexity, and general housekeeping requirements is taken into account". However, they also state that when "custodians are routinely used for a variety of other functions (e.g., grounds duties, transportation activities, classroom assistance, etc.), this formula should be adjusted further to better reflect the total labor force needed at a particular facility" (Maintenance and Operations Guidelines, Florida DoE, p.58). It is assumed from the report that, in general, day and night shift custodians are accounted for in the formula.

Based on Florida standards, Figure 2 depicts how many FTE's Albemarle County Public Schools would need.

Florida Staffing Formula		
School	Total Sq. Ft.	FTE
Agnor Hurt	72,756.00	4.33
Baker-Butler	84,365.00	4.94
Broadus Wood	49,852.00	3.12
Brownsville	90,550.00	5.27
Cale	91,307.00	5.31
Crozet	54,142.00	3.35
Greer	98,158.00	5.67
Hollymead	66,437.00	4.00
Meriwether	56,450.00	3.47
Murray Elem	42,057.00	2.71
Red Hill	28,950.00	2.02
Scottsville	32,954.00	2.23
Stone Robinson	71,100.00	4.24
Stony Point	38,500.00	2.53
Woodbrook	50,366.00	3.15
Yancey	27,230.00	1.93
Burley	123,626.00	7.26
Henley	113,019.00	6.70
Jouett	93,271.00	5.66
Sutherland	94,440.00	5.72
Walton	98,340.00	5.93
Albemarle	341,703.00	18.98
Monticello	249,195.00	14.12
Western	187,754.00	10.88
Murray High	29,415.00	2.55
Prep/Ivy	20,000.00	1.55
	TOTALS:	137.62

Figure 3

California Association of School Board Officials

The California Association of School Board Officials (CASBO) created their own formula in response to budget concerns. It is a straight forward reasoning: “In determining time standards you must incorporate what level of cleaning you, as the client, would be willing to pay for. What services you cannot live without. Those services you would give up to create time for more cleaning services”. Simply put, the calculation shows how many custodians a school needs when maximizing cleaning time and minimizing non-cleaning duties. This formula is as follows: 1 custodian for every 13 teachers + 1 custodian for every 325 students + 1 custodian for every 13 rooms + 1 custodian for every 18,000 sq.ft. Divide that total by 4, and then add: .30 FTE (Full Time Equivalent) if a school has less than 400 students, .0625 FTE for K-5 Schools, .25 FTE for Middle Schools, and .50 FTE for High Schools.

For example:

- 100,000 square foot Middle School, 50 teachers, 600 students, 60 rooms.
- $50 \div 13 = 3.85$
- $600 \div 325 = 1.85$
- $60 \div 13 = 4.62$
- $100,000 \div 18,000 = 5.55$
- $3.85 + 1.85 + 4.62 + 5.55 = 15.87$
- $15.87 \div 4 = 3.96$
- $3.96 + .25 = \mathbf{4.21 \text{ FTE.}}$

As you can see, the school was over 400 students, so .30 FTE was not added. The middle school modifier, .25 FTE, was added to the total. This gives the middle school 4.21 full time custodians to clean the school each day, about 23,700 square feet per custodian.

It is assumed that in the CASBO Formula, Day/Lead custodians are not accounted for. Here is a breakdown of how many FTE would be needed at each school (full calculations in Appendix C):

California Schools Custodial Formula- CASBO		
School	FTE	Custodial Coverage
Agnor Hurt	2.94	24,725.91
Baker-Butler	3.33	25,315.83
Broadus Wood	2.16	23,052.95
Brownsville	3.63	24,927.74
Cale	3.81	24,211.67
Crozet	2.29	23,617.01
Greer	3.73	26,566.11
Hollymead	2.68	25,512.40
Meriwether	2.32	26,027.99
Murray Elem	1.91	22,513.46
Red Hill	1.60	20,561.62
Scottsville	1.62	21,543.30
Stone Robinson	2.73	26,020.13
Stony Point	1.97	21,546.26
Woodbrook	2.47	21,583.82
Yancey	1.39	20,991.02
Burley	4.14	29,861.35
Henley	4.32	26,161.81
Jouett	4.09	22,804.65
Sutherland	3.62	26,088.40
Walton	3.46	28,421.97
Albemarle	11.48	29,765.07
Monticello	7.68	32,447.27
Western	6.23	30,939.65
Murray High	1.84	15,964.72
Prep/Ivy	1.08	18,475.75
	Total FTE	Avg. Cust. Coverage
	88.57	24,601.84

Figure 4

Association of School Board Officials

The Association of School Board Officials (ASBO) has its' own formula, and standards, for calculating the number of FTE's a school needs. Each of the ASBO standards are explained in Appendix B. ASBO's Level 2 cleaning suggests that each custodian could clean around 18,000-20,000 square feet, and for a Level 3 cleaning it suggests a custodian can clean 28,000-31,000 square feet per day. It is assumed in the ASBO formula that Day/Lead custodians are included.

The following chart shows Albemarle County Public Schools at both Level 2 and Level 3 for ASBO Standards. For the purpose of differentiating between Elementary, Middle, and High Schools, Level 2 was calculated as follows: Elementary at 18,000 ft² per custodian, Middle at 19,000 ft² per custodian, and High at 20,000 ft² per custodian. Level 3 was calculated as follows: Elementary at 28,000 ft² per custodian, Middle at 29,000 ft² per custodian, and High at 30,000 ft² per custodian.

School	Area	ASBO Level 2	ASBO Level 3
Agnor Hurt	72,756.00	4.04	2.60
Baker-Butler	84,365.00	4.69	3.01
Broadus Wood	49,852.00	2.77	1.78
Brownsville	90,550.00	5.03	3.23
Cale	92,307.00	5.13	3.30
Crozet	54,142.00	3.01	1.93
Greer	99,158.00	5.51	3.54
Hollymead	68,437.00	3.80	2.44
Meriwether	60,450.00	3.36	2.16
Murray Elem	43,057.00	2.39	1.54
Red Hill	32,950.00	1.83	1.18
Scottsville	34,954.00	1.94	1.25
Stone Robinson	71,100.00	3.95	2.54
Stony Point	42,500.00	2.36	1.52
Woodbrook	53,366.00	2.96	1.91
Yancey	29,230.00	1.62	1.04
Burley	123,626.00	6.51	4.26
Henley	113,019.00	5.95	3.90
Jouett	93,271.00	4.91	3.22
Sutherland	94,440.00	4.97	3.26
Walton	98,340.00	5.18	3.39
Albemarle	341,703.00	17.09	11.39
Monticello	249,195.00	12.46	8.31
Western	192,754.00	9.64	6.43
Murray High	29,415.00	1.47	0.98
Prep/Ivy	20,000.00	1.11	0.71
TOTAL FTE		123.67	80.81

Figure 5

Newport News Public Schools

Newport News Public Schools (NNPS) bases their custodial staffing on how many square feet one custodian could clean each day. Ideally, this would be 18,000 square feet per custodian. Generally, NNPS has not strayed far from this calculation, adjusting some schools due to budget and custodial needs of the school. Newport News went from about a recommended 240 custodians (not including supervisors/temps/floater) to an actual 225 custodians (about 93.75% of the recommended staffing). The following chart depicts the number the FTE needed for ACPS based on the NNPS Standard of 18,000 square feet per custodian, with no adjustments.

School	Area	NNPS
Agnor Hurt	72,756.00	4.04
Baker-Butler	84,365.00	4.69
Broadus Wood	49,852.00	2.77
Brownsville	90,550.00	5.03
Cale	92,307.00	5.13
Crozet	54,142.00	3.01
Greer	99,158.00	5.51
Hollymead	68,437.00	3.80
Meriwether	60,450.00	3.36
Murray Elem	43,057.00	2.39
Red Hill	32,950.00	1.83
Scottsville	34,954.00	1.94
Stone Robinson	71,100.00	3.95
Stony Point	42,500.00	2.36
Woodbrook	53,366.00	2.96
Yancey	29,230.00	1.62
Burley	123,626.00	6.87
Henley	113,019.00	6.28
Jouett	93,271.00	5.18
Sutherland	94,440.00	5.25
Walton	98,340.00	5.46
Albemarle	341,703.00	18.98
Monticello	249,195.00	13.84
Western	192,754.00	10.71
Murray High	29,415.00	1.63
Prep/Ivy	20,000.00	1.11
TOTAL FTE		129.72

Figure 6

Fairfax County Public Schools

The Gibson Consulting Group, well known for assessing custodial staffing for Hanover County, also assessed Fairfax County in 2013. While this thorough report gives insight to areas that may have needed improvement, it bases its' assessment solely off of the updated APPA guidelines (2011) stating that each custodian can clean 25,000 square feet per day for a Level 2 cleaning (previously 19,000 in 1998). Fairfax County responded to the Gibson Study by adjusting its' own formula to address budget concerns.

The FCPS formula takes into account the square footage, number of classrooms/teachers, enrollment, and community use of each school. Since the recession, the formula was adjusted in 2 ways: the square footage and classroom components that you see in the formula below were 0.03 (instead of 0.027) pre-recession. The enrollment factor used to be 0.001 and was reduced to the 0.0009. A modifier for each level (0.5 for elementary and middle, 1.00 for high) is also subtracted for budgeting reasons.

To get an idea of the difference these pre- and post-recession employee numbers, both formulas were used for the ACPS comparison.

Formula:
(classrooms/teachers * 0.028)
+ (square footage / 1000 * 0.027)
+ (projected enrollment * 0.0009)
+ 0.3 (community use)
– 0.5 or 1.00
(.5 for elementary/middle, 1.00 for high)

School	Pre-Recession	Recession Cut
Agnor Hurt	4.00	3.00
Baker-Butler	4.50	3.50
Broadus Wood	3.00	2.00
Brownsville	5.00	4.00
Cale	5.00	4.00
Crozet	3.00	2.00
Greer	5.00	4.00
Hollymead	3.50	3.00
Meriwether	3.50	2.50
Murray Elem	2.50	1.50
Red Hill	2.00	1.00
Scottsville	2.00	1.00
Stone Robinson	4.00	3.00
Stony Point	2.50	1.50
Woodbrook	3.00	2.00
Yancey	1.50	1.00
Burley	6.00	4.50
Henley	6.50	4.50
Jouett	5.00	4.00
Sutherland	5.00	3.50
Walton	4.50	3.50
Albemarle	17.50	15.00
Monticello	13.00	11.00
Western	11.00	9.00
Murray High	3.50	2.50
Prep/Ivy	1.00	0.53
TOTALS	127.00	97.03

Figure 7

Prince William County Public Schools

Prince William County Public Schools (PWCPS) uses a hybrid formula to determine custodial needs. Mr. Kelly Rice, President of Virginia School Plant Manager's Association and Custodial Services Coordinator at PWCPS, advocates a modification of the Florida Standards. An average of 21,000 square feet is assigned to night time staff with a deduction of 7,500 square feet of GSF toward daytime routine cleaning. The 7500 square feet of daytime routine cleaning involves any cafeteria cleaning, and any other cleaning managed during the day alongside daytime custodial duties.

Using this formula, Albemarle County Public Schools would allow for the following FTE's:

School	Area	PWCS
Agnor Hurt	72,756.00	3.11
Baker-Butler	84,365.00	3.66
Broadus Wood	49,852.00	2.02
Brownsville	90,550.00	3.95
Cale	92,307.00	4.04
Crozet	54,142.00	2.22
Greer	99,158.00	4.36
Hollymead	68,437.00	2.90
Meriwether	60,450.00	2.52
Murray Elem	43,057.00	1.69
Red Hill	32,950.00	1.21
Scottsville	34,954.00	1.31
Stone Robinson	71,100.00	3.03
Stony Point	42,500.00	1.67
Woodbrook	53,366.00	2.18
Yancey	29,230.00	1.03
Burley	123,626.00	5.53
Henley	113,019.00	5.02
Jouett	93,271.00	4.08
Sutherland	94,440.00	4.14
Walton	98,340.00	4.33
Albemarle	341,703.00	15.91
Monticello	249,195.00	11.51
Western	192,754.00	8.82
Murray High	29,415.00	1.04
Prep/Ivy	20,000.00	0.60
TOTAL FTE		101.88

Figure 8

Figure 9

Comparing and Contrasting

School	Area (incl. Trailers)	TOTAL FTE	APPA Level 2	APPA Level 3	Florida	CASBO	ASBO Level 2	ASBO Level 3	NNPS*	FCPS (pre-rec.)	FCPS (post-rec.)	PWCS
Agnor Hurt	72,756.00	4.00	3.78	3.23	4.33	2.94	4.04	2.60	4.04	4.00	3.00	3.11
Baker-Butler	84,365.00	4.00	4.43	3.77	4.94	3.33	4.69	3.01	4.69	4.50	3.50	3.66
Broadus Wood	49,852.00	3.00	2.57	2.19	3.12	2.16	2.77	1.78	2.77	3.00	2.00	2.02
Brownsville	90,550.00	5.50	4.75	4.10	5.27	3.63	5.03	3.23	5.03	5.00	4.00	3.95
Cale	92,307.00	5.00	4.85	4.17	5.31	3.81	5.13	3.30	5.13	5.00	4.00	4.04
Crozet	54,142.00	3.50	2.83	2.44	3.35	2.29	3.01	1.93	3.01	3.00	2.00	2.22
Greer	99,158.00	4.50	5.21	4.46	5.67	3.73	5.51	3.54	5.51	5.00	4.00	4.36
Hollymead	68,437.00	4.00	3.60	3.10	4.00	2.68	3.80	2.44	3.80	3.50	3.00	2.90
Meriwether	60,450.00	3.25	3.17	2.70	3.47	2.32	3.36	2.16	3.36	3.50	2.50	2.52
Murray Elem	43,057.00	3.00	2.22	1.89	2.71	1.91	2.39	1.54	2.39	2.50	1.50	1.69
Red Hill	32,950.00	2.00	1.74	1.50	2.02	1.60	1.83	1.18	1.83	2.00	1.00	1.21
Scottsville	34,954.00	2.12	1.82	1.57	2.23	1.62	1.94	1.25	1.94	2.00	1.00	1.31
Stone Robinson	71,100.00	3.50	3.74	3.22	4.24	2.73	3.95	2.54	3.95	4.00	3.00	3.03
Stony Point	42,500.00	3.00	2.21	1.89	2.53	1.97	2.36	1.52	2.36	2.50	1.50	1.67
Woodbrook	53,366.00	3.63	2.79	2.40	3.15	2.47	2.96	1.91	2.96	3.00	2.00	2.18
Yancey	29,230.00	2.00	1.50	1.25	1.93	1.39	1.62	1.04	1.62	1.50	1.00	1.03
Burley	123,626.00	5.00	5.84	5.07	7.26	4.14	6.51	4.26	6.87	6.00	4.50	5.53
Henley	113,019.00	5.75	5.35	4.66	6.70	4.32	5.95	3.90	6.28	6.50	4.50	5.02
Jouett	93,271.00	5.00	4.39	3.79	5.66	4.09	4.91	3.22	5.18	5.00	4.00	4.08
Sutherland	94,440.00	4.50	4.45	3.85	5.72	3.62	4.97	3.26	5.25	5.00	3.50	4.14
Walton	98,340.00	4.00	4.55	3.92	5.93	3.46	5.18	3.39	5.46	4.50	3.50	4.33
Albemarle	341,703.00	14.63	16.72	13.41	18.98	11.48	17.09	11.39	18.98	17.50	15.00	15.91
Monticello	249,195.00	11.00	12.09	9.47	14.12	7.68	12.46	8.31	13.84	13.00	11.00	11.51
Western	192,754.00	8.63	9.27	7.27	10.88	6.23	9.64	6.43	10.71	11.00	9.00	8.82
Murray High	29,415.00	1.63	1.35	1.12	2.55	1.84	1.47	0.98	1.63	3.50	2.50	1.04
Prep/lvy	20,000.00	1.00	0.95	0.80	1.55	1.08	1.11	0.71	1.11	1.00	0.53	0.60
TOTAL FTE		117.14	116.17	97.24	137.62	88.57	123.67	80.81	129.72	127.00	97.03	101.88
Floaters:		5.00										
Reg. Sup.		2.68										
TOTAL EMPLOYEES:		124.82										

***NNPS made adjustments for staffing depending on budget, school size, etc- no adjustments have been made on this comparison.**

This chart shows each of the staffing standards side by side for easy comparison. As shown, ACPs's are currently staffed at 117.14 FTE. Each of the proceeding numbers in the chart shows what our staffing would be if each standard was adapted.

When it comes to comparing custodial staffing formulas, it would seem that there is no “right” way to figure out staffing at schools. Each school system has its own needs depending on the budget, school size, enrollment, number of faculty/staff, which level of schooling (elementary, middle or high), the number of events at a school, etc. Quality and service expectations are another key consideration when staffing schools. An important factor to remember when comparing Albemarle County to the different staffing formulas is the impact small schools have on FTE counts. At schools with less than 35,000 square feet, many formula’s do not take into account that one person is there during the day, and usually another is there at night. This skews the numbers, and would make it seem as though a school is overstaffed, when this is not the case.

In general, Albemarle County Public Schools’ staffing falls in the middle, being neither too low (CASBO, ASBO Level 3) nor too high (Florida). ACPS tends to align closest with the APPA Level 2 and ASBO Level 2. Relative to other schools systems, we are in the middle compared to Newport News, Fairfax County, and Prince William County Schools.

While the APPA Level 2 standards are the closest to ACPS FTE- one must keep in mind that the exact cleanable square footage needs to be used for precise staffing. Furthermore, there are more rooms/areas that are cleaned than were calculated in the standard (Appendix D), and APPA routine cleaning activities do not align completely with what is tasked in Albemarle County. Our hope, by using one of our typical schools as an example, was that the FTE’s would end up in the same range as ACPS. Generally, the FTE count at each school was very similar to our real staffing. We believe that it is best to strive for a Level 2 cleaning, due to the level of allergies, dust, pathogens, etc. that affect many children, and which parents worry about. Striving for a Level 2 cleaning ensures a safe and healthy educational environment to our most important clients.

The Florida Department of Education’s standard does include daytime custodians and the non-traditional tasks they complete during the day. This gives some comfort knowing that Lead custodians are accounted for. However, it is a very simple formula that does not take into account school variables like enrollment, budget, and community use, leading to some higher FTE counts. Fortunately the standard states that the formula can, and should, be changed according to each school’s needs, which would enable some lower, or higher, staffing where appropriate. For example, Walton Middle School, according to Florida standards, would need

about 6 custodians. In reality, while Walton has over 90,000 square feet, enrollment is significantly lower than some of the other middle schools of comparable size, and is currently staffed at 4 custodians. Walton and Jack Jouett Middle School have comparable square footage but differ by 1 FTE due to disparate enrollment of 617 vs. 359. Additionally, the school's layout, configuration, and age have a significant impact on staffing. As an example, with multiple levels and a complex configuration, Jack Jouett Middle School requires a greater FTE than Walton Middle School.

The CASBO formula is a formula to use during hard times. Its purpose is to cut back to the bare minimum- even stating that the district should think about how to cut out non-cleaning tasks in order to maximize a custodians' cleaning time. According to the full breakdown of CASBO, barely two and a half hours are set aside to help with non-cleaning tasks (policing, helping teachers, put up the flag, etc.). Here at ACPS, we take pride in being able to help out the teachers and staff members at each school, believing those intangible tasks are essential to the custodial services.

ASBO is a simple way to see how many custodians it would take to clean a school each day/night, by giving each custodian a set number of square feet to clean. At Level 2, ACPS would land on the higher side, about 10 more than we have at this time. At Level 3 though, it would land about 25 less than the present moment. ASBO states that most schools find Level 3 standards acceptable; however Albemarle County finds that "Casual Inattentiveness" is not acceptable for our clients and lends toward an unhealthy environment, especially in an age of allergy sensitivity and a plethora of viruses. This accounts for why ACPS aligns closer with Level 2 of ASBO, and not Level 3.

Comparable to ASBO, Newport News divides up how much square footage each custodian can clean each day. It is good to note that NNPS actual custodial staff is different from their recommended staffing due to budget constraints. They actually staff at 93.75 percent of the recommended staffing. We align closer with NNPS if we make similar adjustments when calculating ACPS staffing- our FTE count would be at 121.29 full time employees, instead of 127.92.

Fairfax County Public Schools has an interesting formula, and its pre-recession version led to the FTE count being similar to ASBO Level 2. FCPS pre-recession numbers are about 10 FTE higher than what Albemarle has currently, while post-recession is about 20 FTE lower. Both

ACPS and FCPS take into account not just cleanable square footage, but enrollment, classroom use, community use, and schooling level (elementary vs. middle vs. high school).

One of the other peer districts we compare ACPS with is Prince William County. Their staffing was somewhat comparable to Albemarle County's staffing when comparing the actual number of custodians at similar sized schools. For example, Stone Robinson Elementary in Albemarle County has an area of 71,100 sq.ft. with 3.50 custodians, where Porter Elementary has 71,245 sq.ft and 4 custodians. The staffing formula however, gave us slightly different results. The formula accounted for daytime custodial staff by initially subtracting 7,500 square feet from the gross square footage, then dividing by the area a custodian would clean daily. Prince William's staffing formula ended up 8 FTE lower than Albemarle County's current data.

It is important to compare and contrast not only staffing formulas, but actual staffing levels at comparable school districts. As stated when looking at Prince William county, the actual data for schools can give a better idea of where Albemarle County stands with its' staffing levels. Here is an excerpt from the full comparison chart (Appendix E), which shows the comparison between Albemarle County, Chesterfield County, and Prince William County:

		Albemarle County		Chesterfield County		Prince William County	
		Area	FTE	Area	FTE	Area	FTE
Elem.	TOTALS	979,174	57.00	3,138,231	201.50	4,008,017	195.93
	SQ.FT/CUST.	17,178.49		15,574.35		20,456.37	
Middle	TOTALS	522,696	24.25	2,109,669	108.50	2,126,286	88.50
	SQ.FT/CUST.	21,554.47		19,443.95		24,025.83	
High	TOTALS	783,652	35.26	3,176,511	114.50	3,256,270	140.00
	SQ.FT/CUST.	22,224.96		27,742.45		23,259.07	
Other	TOTALS	49,415	2.63	177,521	17.50	750,987	42.80
	SQ.FT/CUST.	18,788.97		10,144.06		17,546.43	

Figure 9

Organizational Structure

The way each city/county is organized also has an impact on how each school is staffed, and the type of work done employees. Below is the ACPS organizational chart (figure 11), depicting the workflow from Building Services (Assistant Director, Regional Supervisors) to each of the schools (regional supervisors, building managers, custodial supervisors, and leads).

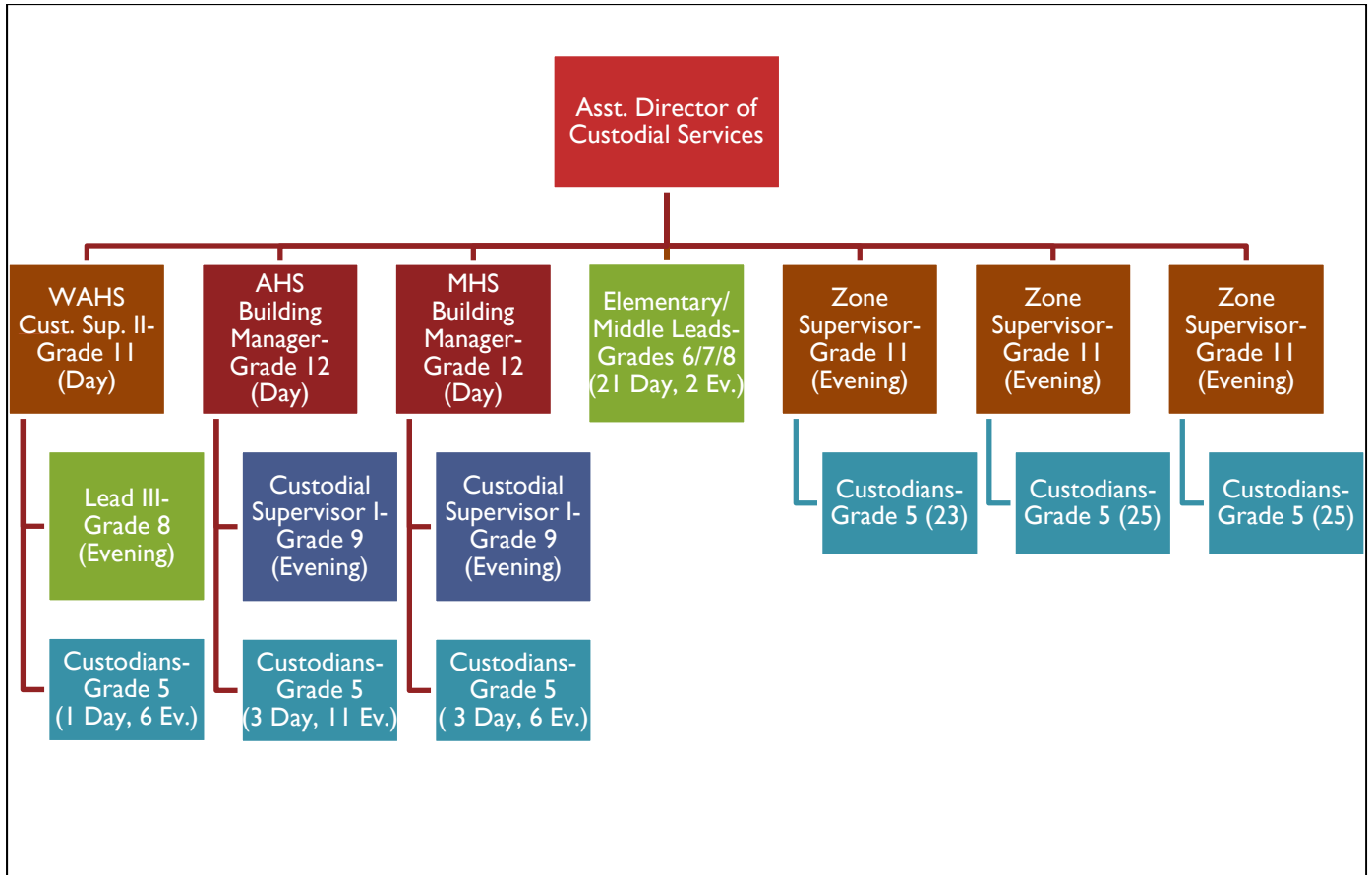


Figure 10- Albemarle County Public Schools

Albemarle works as a centralized organization, which can also be seen at Chesterfield County (figure 12) and the City of Newport News (figure 13). Chesterfield County (figure 12) is somewhat similar, having an Assistant Director to oversee operations, then Zone supervisors, daytime supervisors, assistant night supervisors, and custodial staff.

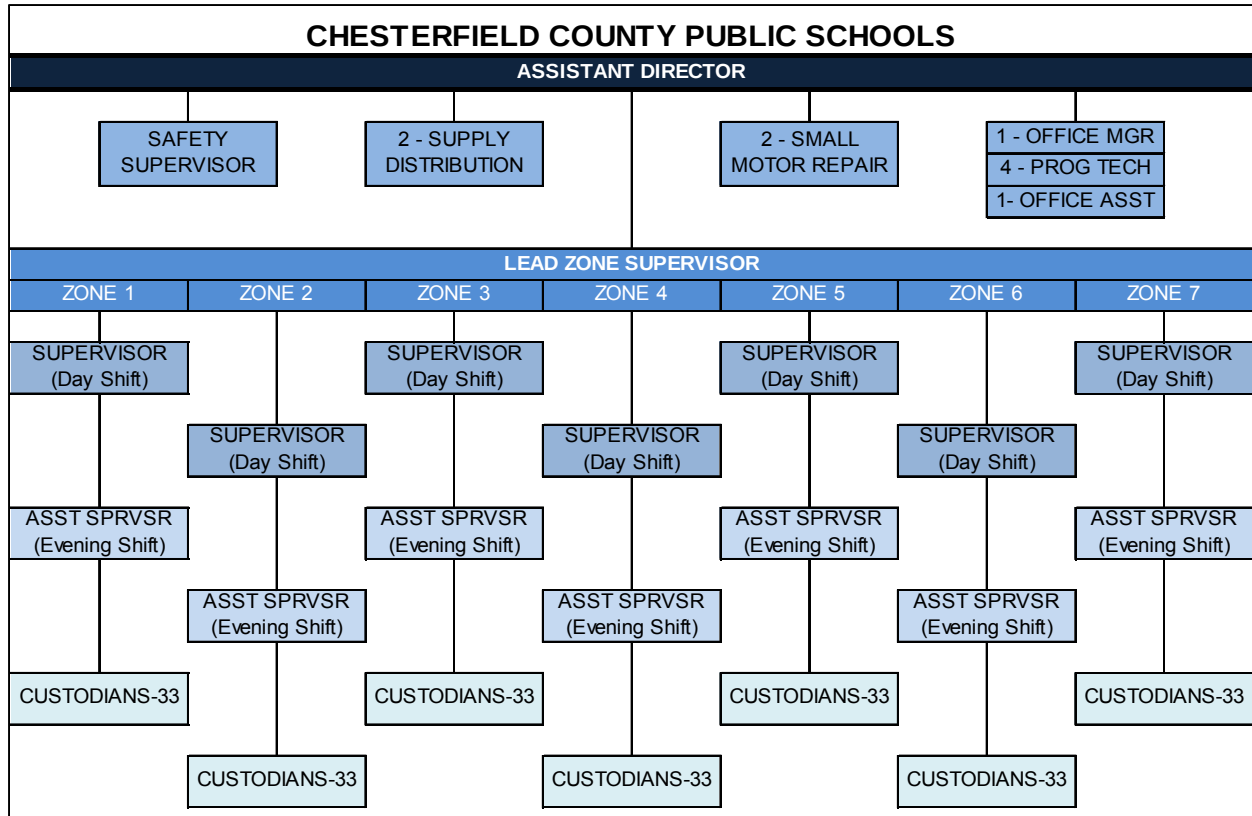


Figure 11- Chesterfield County has 7 Zone Supervisors, day supervisors, and assistants who work at night.

The City of Newport News (figure 13) is also set-up similarly, with one difference: the area Supervisors are directly responsible for Leads and Custodians. This is closer to what Albemarle County has, except that most of our leads are currently supervised by our Assistant Director.

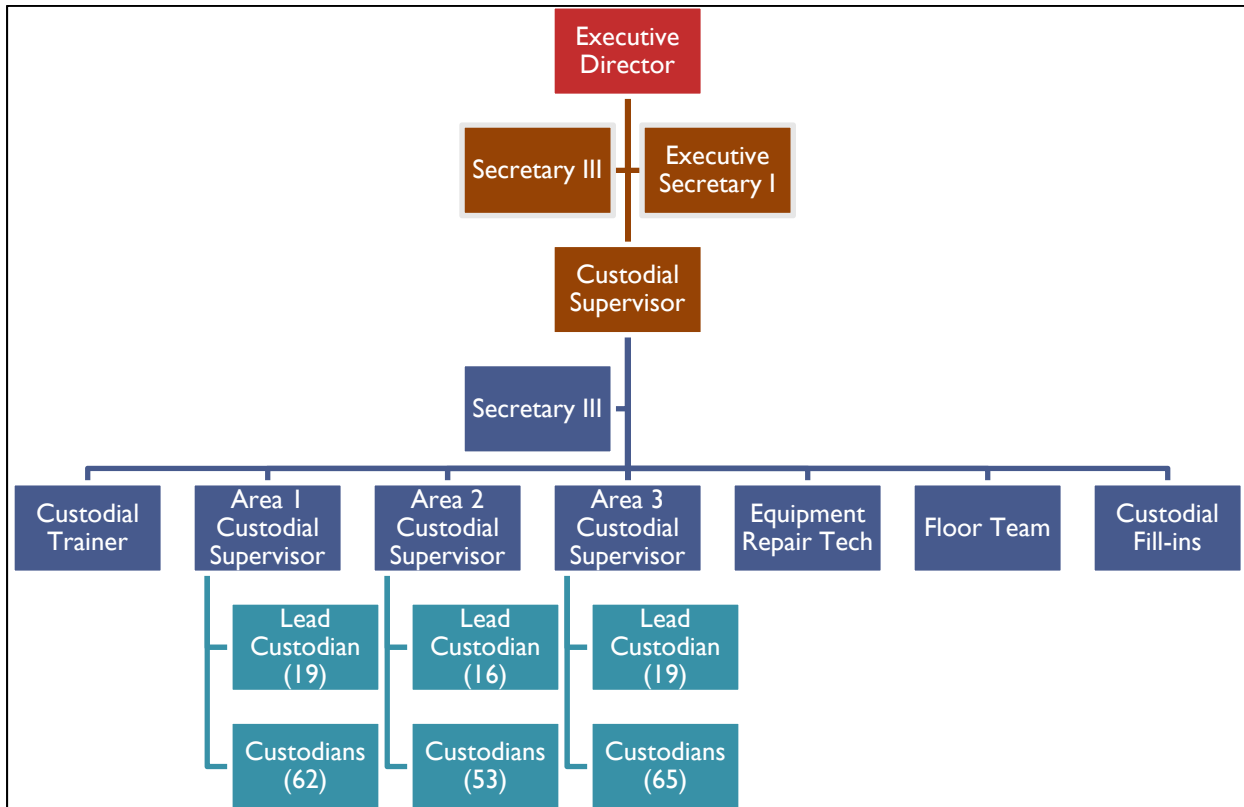


Figure 12- Newport News also has Zone (Area) Supervisors, who are in charge of Leads and Custodians.

The similarities in these centralized management structures is a central office and Director, with subsequent zones/regions, leads/assistants, and custodians. Working with a centralized structure allows for oversight of all standardized procedures, allowing for higher quality and customer satisfaction at each school.

Not all counties and cities are centralized- some are decentralized. Decentralization takes responsibility and away from a central office, and disperses it through the system. In a decentralized system, it is most likely that the principals of each school would be in charge of custodial staff. This can be seen in Alexandria City (figure 14), where the “Elementary/Middle/High School Supervisor” is a supervisor for *each* school.

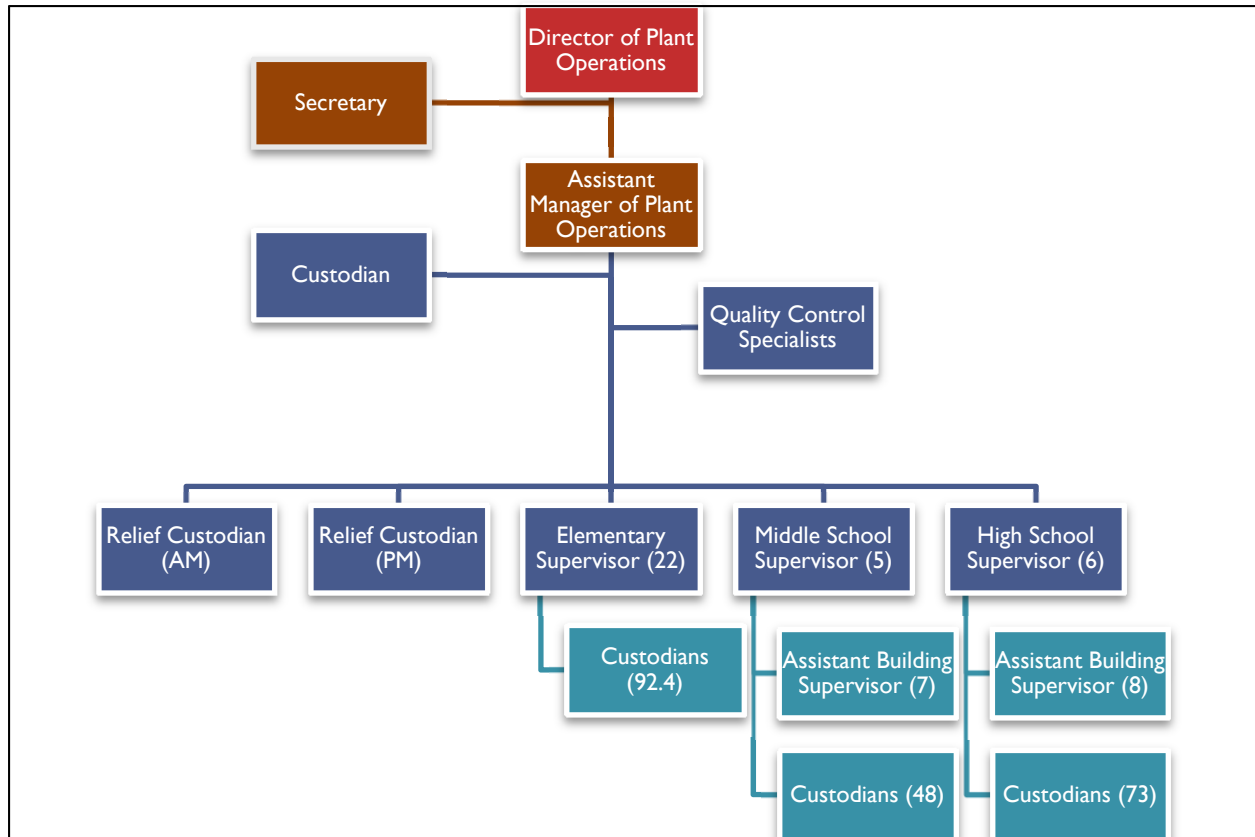


Figure 13- Alexandria City

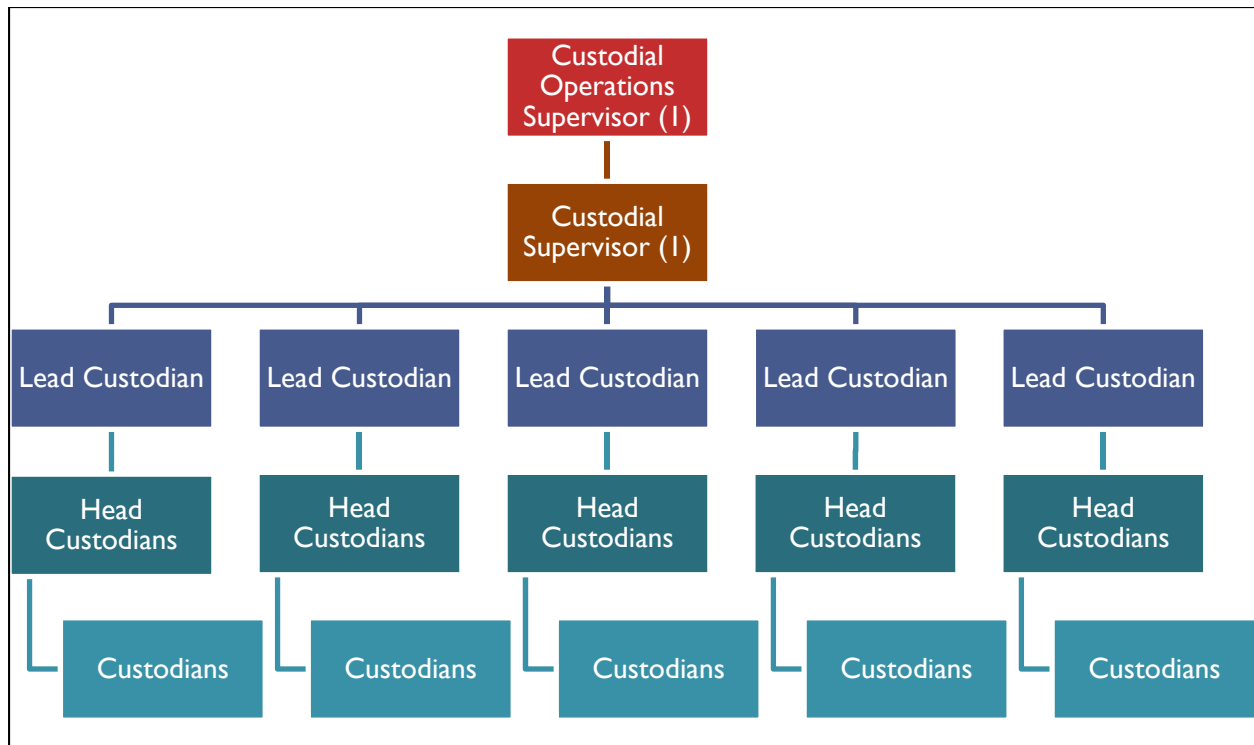


Figure 14- Loudon County- another example of a decentralized system. The Lead custodians are similar to our Regional Supervisors; the Head Custodians work in the evenings.

A decentralized system does not allow for the same assurances in quality as a centralized system. Support services tend to be overlooked and unevenly distributed when a system is decentralized, for example substitutions, quality control, supplies and equipment. While there can still be quality assurance checks (in Figure 14 “Quality Control Specialists”), there is no day to day guarantee that a healthy level of cleanliness is maintained. More and more school systems are beginning to lean toward centralization, to keep quality, customer satisfaction, and procedures the same across the board. Centralization ensures that each school, no matter how big or small, has the supplies and custodial staff it needs to aid faculty and keep areas up to standard.

Recommendations for ACPS Organizational Structure

After looking in the structures of other organizations and further deliberation about recommendations for our structure, we created some examples of what our structure could look like. Nearly all examples include creating greater efficiency by placing all of the Lead Custodians under the Custodial Supervisors. Here are the suggested structures:

Figure 15

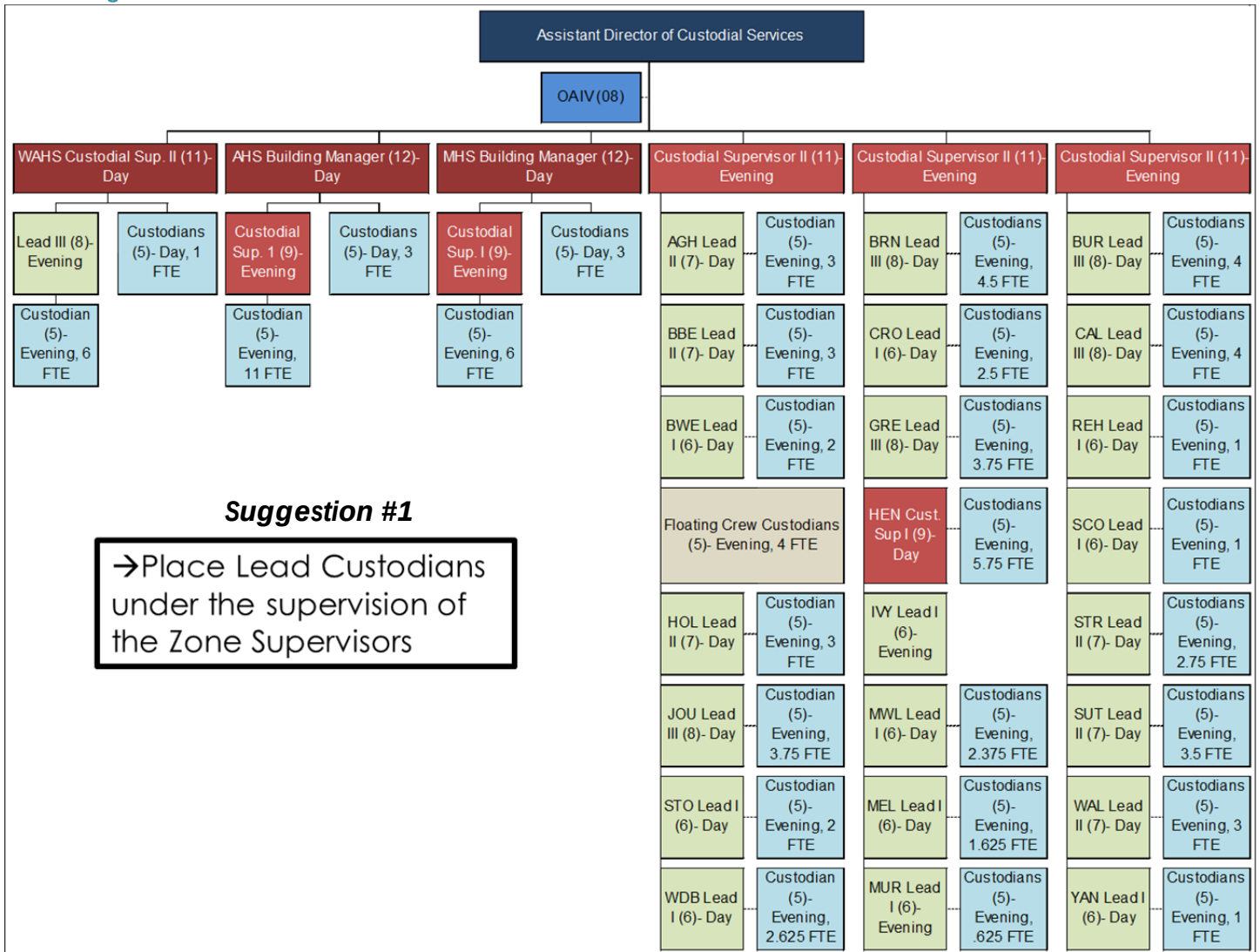


Figure 16

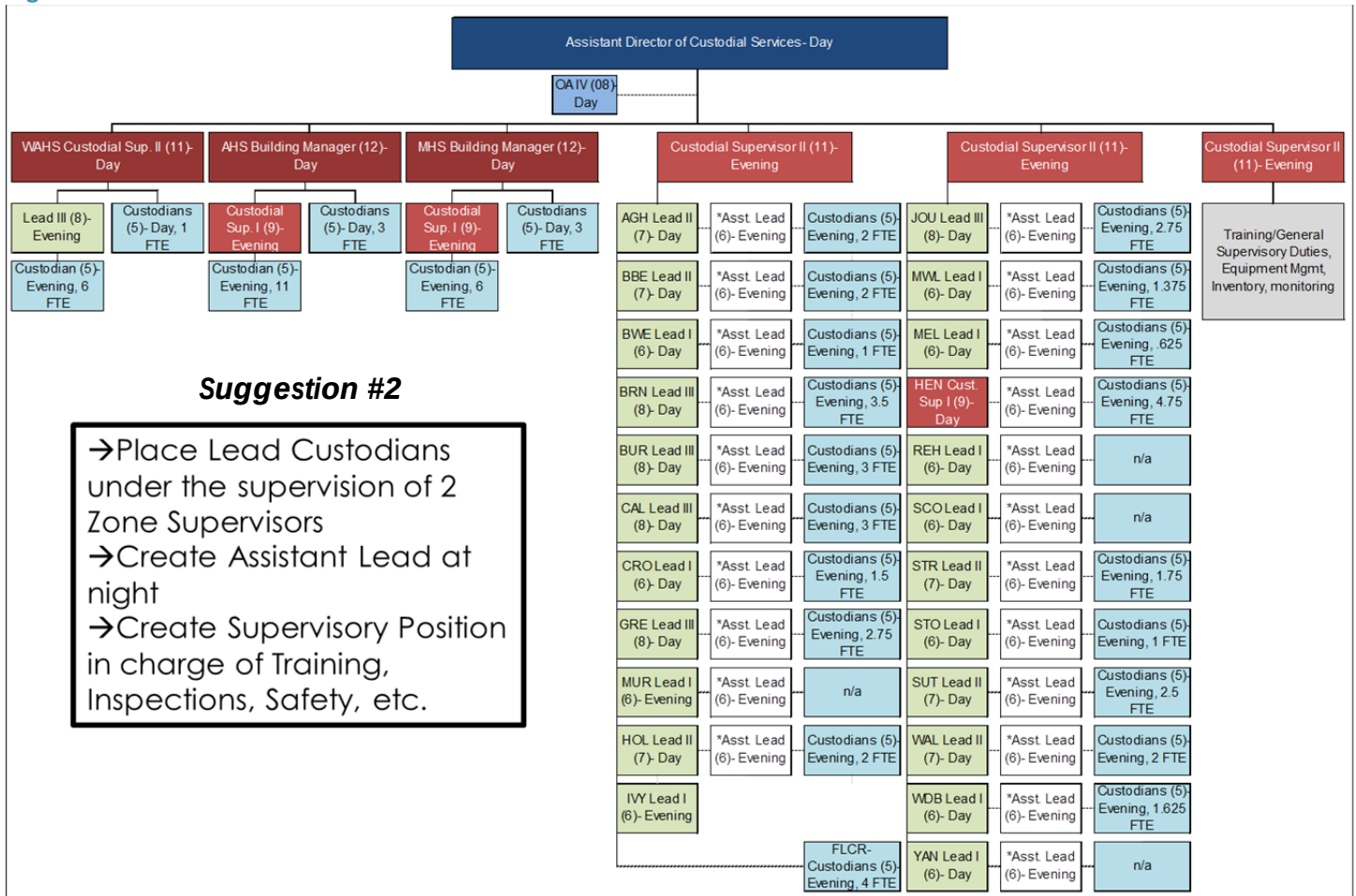


Figure 17

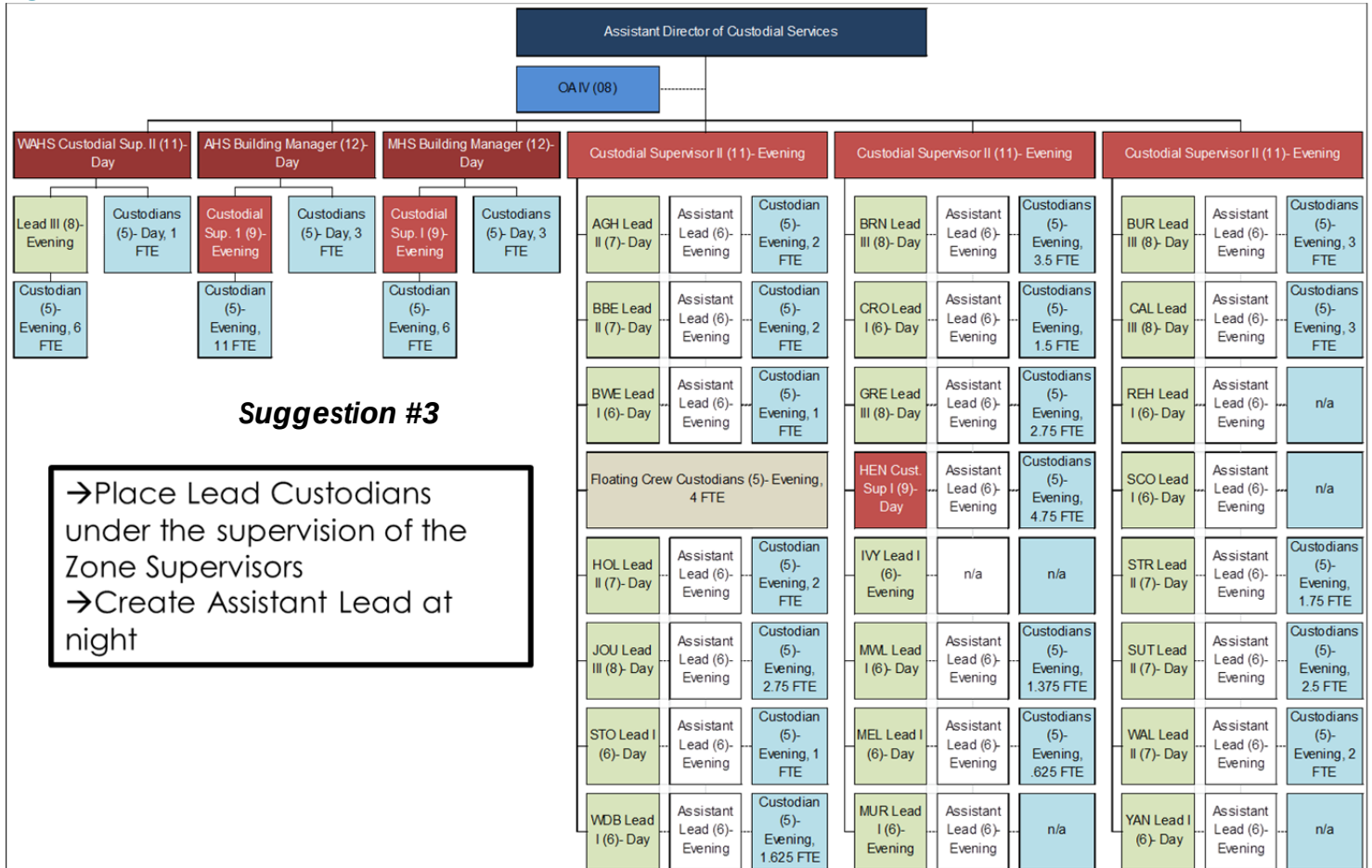
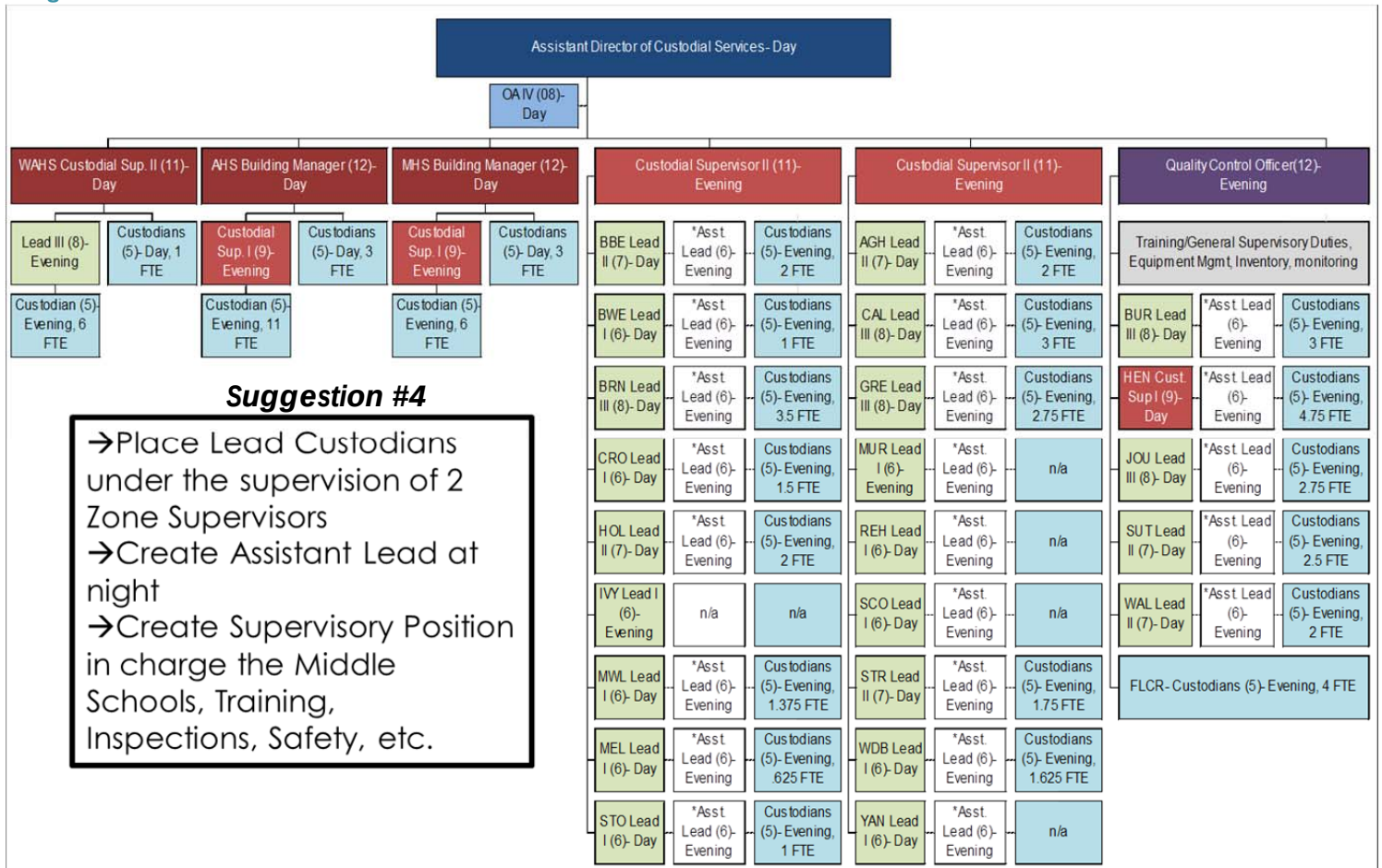


Figure 18



Each of the suggested structures has pros and cons when compared to our current organizational structure. For example, the idea of placing Leads under the supervision of the Supervisors seems to be an improvement in every suggestion. On the other hand, only have 2 Supervisors seems to put too many schools under each one, but the idea of a Quality Control/Safety Monitor can help with some of the workload. We hope to continually improve our organization by choosing a structure that will align with the needs of our schools.

Cost Analysis

One other way Custodial Services can analyze their efficiency is by looking at one very important factor- cost. American School and University (ASU), Cleaning and Maintenance Management Report (C&M), and the International Facilities Management Association (IFMA) all conduct surveys of schools across the country to compare spending and create benchmarks for companies, schools, and other facilities. ASU's 2006 survey stated that the **median** custodial cost per square foot in educational facilities was \$1.56, while IFMA's 2009 survey stated that the **average** was \$1.46. Unfortunately these surveys are not the most recent, and there is no way to know the state of cleanliness or quality of service in the surveyed schools.

COST PER SQUARE FOOT		
	IFMA*- MEAN	ASU**- MEDIAN
Janitorial	1.46	1.56
*Shown in \$/RSF. Includes: wages, benefits, staff support, supervision, administration, supplies, paper goods, and non-capital equipment.		
**Categories unknown		

With this in mind, we decided to reach out to other schools, to see if they used any particular formulas for cost per square foot, and to compare our costs with theirs. Fairfax County Public Schools had the most clear cut answer, replying with their costs as well as a School Efficiency Report done by the Gibson Consulting Group. The categories used in the report were:

- Personnel (salaries)
- Personnel (benefits)
- Supplies (paper, plastic, cleaning, etc.)
- Custodial equipment repair costs
- Equipment replacement costs
- Contracts (labor, services, etc.)

We added uniforms to this list, as it is a cost for Albemarle County, counted our Temporary custodians as contract labor, and did not include overtime wages due to most hours being billed to Building Rentals (which are paid for by the groups renting our facilities). Figure 1 shows Fairfax's analysis compared to our analysis, using the categories from the Gibson Report.

	Fairfax County Public Schools			Albemarle County Public Schools		
CATEGORIES	FY 2010	FY 2011	FY 2012	2012/13 (budgeted)	2013/14 (budgeted)	2014/15 (budgeted)
Personnel (salaries)	\$ 47,593,409	\$ 41,516,559	\$ 42,751,841	\$ 5,060,974	\$ 5,170,010	\$ 5,266,651
Personnel (benefits)	\$ 17,990,309	\$ 15,361,127	\$ 17,100,736			
Uniforms	\$ -	\$ -	\$ -	\$ 36,000	\$ 36,000	\$ 20,000
Supplies (paper, plastic, cleaning, etc.)	\$ 3,092,162	\$ 3,224,459	\$ 3,186,730	\$ 303,692	\$ 300,000	\$ 310,000
Custodial equipment repair costs	\$ 507,420	\$ 489,311	\$ 379,496	\$ 24,000	\$ 24,000	\$ 42,000
Equipment replacement costs	\$ 142,064	\$ 311,604	\$ 118,212	\$ 38,000	\$ 36,000	\$ 56,584
Contracts (labor, services, etc.)*	\$ 586,965	\$ 592,905	\$ 677,933	\$ 25,000	\$ 20,000	\$ 20,000
Total Costs	\$ 69,912,329	\$ 61,495,965	\$ 64,214,948	\$ 5,487,666	\$ 5,586,010	\$ 5,715,235
Total gross square footage	26,278,181	26,480,424	26,293,673	2,282,937	2,282,937	2,334,937
Custodial cost per square foot	\$ 2.66	\$ 2.32	\$ 2.44	\$ 2.40	\$ 2.45	\$ 2.45

Figure 19

Interestingly, the report (published in September 2013) mentions the standard benchmark costs per square foot: “Industry benchmarks for custodial cost per square foot for public schools published by the International Facilities Management Association (IFMA) and American Schools and Universities (AS&U) range between \$1.61 and \$1.77 per square foot. FCPS custodial costs exceed these benchmarks, even when considering other support services and tasks performed by custodians such as grounds maintenance activities. A significant portion of the benchmark variance appears to be due to variances in custodial pay levels nationwide.” Figure 2 shows what the Gibson report found, with Albemarle County’s current average pay rate added.

School System	
Virginia Area	
Albemarle County Public Schools (VA) 2014/15 PAY RATES	\$29,362
Fairfax County Public Schools (VA)	\$33,358
Arlington Public Schools (VA)	\$30,940
Prince William County Public Schools (VA)	\$31,640
Other U.S. School Systems	
Broward County Public Schools (FL)	\$31,458
Miami-Dade County Public Schools (FL)	\$23,589
Los Angeles Unified School District (CA)	\$22,984
Hillsborough County Public Schools (FL)	\$19,000
Houston Independent School District (TX)	\$17,057
Sources: Gibson Consulting Group, Inc. research, FY 2013	

Figure 20

Another reason for variable in the cost per square foot would be how outsourcing services calculate cleaning costs. Outsourcing usually takes vertical wall space into account when calculating cleanable square feet, increasing a districts total square footage, and dropping its' dollar per square foot figure. For example, Albemarle County's total square footage is 2,334,937 right now and our cost per square foot is about \$2.45. If our cleanable square footage included wall space, let's say 20% higher (or 2,801,924 ft²), it would lower the cost per square foot to \$1.99.

Our next step could be to request costs for the specified categories in Figure 1 from comparable counties and cities to see where we actually fall when it comes to custodial cost per square foot. From available budgets online, which separate custodial costs, we have created a basic cost per square foot comparison (shown in figure 3).

Figure 21

BASIC Cost/Square Foot						
	Albemarle	Fairfax County	Chesterfield County	Hanover County	Prince William County**	Newport News
Total Area	2,334,937.00	26,436,204.00	8,300,000.00	2,740,000.00	10,000,500.00	4,475,497.00
Wages/Benefits	\$ 5,266,651.00	\$71,143,635.63	\$23,306,084.40	\$ 3,917,131.72	\$15,535,172.00	\$ 8,270,605.99
Supplies	\$ 310,000.00	\$ 3,375,304.00	\$ 1,453,800.00	\$ 389,283.00	\$ 1,564,833.00	\$ 526,702.00
Total Cost:	\$ 5,576,651.00	\$74,518,939.63	\$24,759,884.40	\$ 4,306,414.72	\$17,100,005.00	\$ 8,797,307.99
Cost per square foot:	\$2.39	\$2.82	\$2.98	\$1.57	\$1.71	\$1.97

** Does not
include benefits

Recommendations

As we've reviewed data from professional facilities organizations and other school districts, we conclude that our staffing is in line to support APPA Level 2 sanitation standards. It appears that our substitution team (Floating Crew) would benefit from additional members to more adequately support absences due to vacation requests, routine illnesses, turnover, and FMLA.

Based on the assessment of other organizational structures, and to add cohesiveness to each school's Custodial team, we recommend option number 5 (Figure 19), which places more, and some new, responsibilities on each Custodial Supervisor. Two of the Supervisors take on more schools, while one Supervisor is promoted to a newly created "Quality Control/Safety Officer". This new position would become the main inspector/quality control officer, and would be in charge of all training programs for Custodial Services. The other change in this option would create a new position, an Assistant Lead Custodian, at night. This Assistant Lead would aid the Lead Custodians at each school by making sure the staff stays on task at night, making sure the building is locked up, and being the first contact for building rentals in the evenings.

When reviewing other division's scheduling of Lead or Head Custodians, we found a mix of staffing; some scheduled during the day and others at night. It was evident, whether centralized or decentralized, that some form of night time supervision on a regional or zone basis was the norm. Decentralized systems tended to use "Monitors" or "Quality Control" positions that also assumed training responsibilities. These Quality Control positions are usually one person, inspecting each school in the district. The Gibson report for FCPS (currently decentralized) recommended the creation of double the Plant Operations Monitor positions, to create a ratio of 10 schools per monitor. This ratio is similar to our current staffing of Zone Supervisors of 8 to 1. With the new structure recommendation, 2 of the Zone supervisors will be 9 to 1. The newly created Quality Control/Safety position is a mix of a Zone and Quality Control monitor, with the middle schools and Safety/Quality Control duties.

If these changes were made, there would be some costs. However, it seems that our costs seem to be falling in the average cost-per-square foot range, and, with these changes, there should not be a great difference. The projected costs are shown in the following chart (Figure 23).

2015/16 Classified Salary Scale Projected FTE Costs									
Grade 5 Custodian at 20% Level									
<u>Salary</u>	<u>Health</u>	<u>Dental</u>	<u>VRS</u>	<u>GLI</u>	<u>FICA</u>	<u>SD</u>	<u>Total Costs</u>	Difference	
\$26,466	\$8,542	\$253	\$2,514.27	\$349.35	\$2,024.68	\$882.20	\$41,031.50		
			0.095	0.0132	0.076501			\$2,349.57	Move 22 FTE from Grade 5 to Grade 6: \$51,690.50
Grade 6 Ass't Lead Custodian at 20% Level									
<u>Salary</u>	<u>Health</u>	<u>Dental</u>	<u>VRS</u>	<u>GLI</u>	<u>FICA</u>	<u>SD</u>	<u>Total Costs</u>		
\$28,395	\$8,542	\$253	\$2,697.53	\$374.81	\$2,172.25	\$946.48	\$43,381.06		22
			0.095	0.0132	0.076501				
Grade 11 Custodial Supervisor at 20% Level									
<u>Salary</u>	<u>Health</u>	<u>Dental</u>	<u>VRS</u>	<u>GLI</u>	<u>FICA</u>	<u>SD</u>	<u>Total Costs</u>		
\$40,369	\$8,542	\$253	\$3,835.06	\$532.87	\$3,088.27	\$1,345.64	\$57,965.83		Move 1 FTE from Grade 11 to 12: \$3,589.88
			0.095	0.0132	0.076501				1
Grade 12 TBD at 20% Level									
<u>Salary</u>	<u>Health</u>	<u>Dental</u>	<u>VRS</u>	<u>GLI</u>	<u>FICA</u>	<u>SD</u>	<u>Total Costs</u>		
\$43,313	\$8,542	\$257	\$4,114.74	\$571.73	\$3,313.49	\$1,443.76	\$61,555.71		
			0.095	0.0132	0.076501			\$3,589.88	Total Change in FTE Cost \$55,280.38

Figure 22

Conclusion

After reviewing and analyzing all the data from professional facilities organizations and other school districts it is evident that we are staffed to achieve APPA Level 2 standards, with few exceptions. Our staffing falls within acceptable parameters when compared to other organizations with similar cost indexes and education standards. We do recognize that due to economic downturns, other systems needed to reduce staffing and therefore standards of cleanliness to fall closer to an APPA Level 3; however this is not the case for Albemarle County. We believe our staffing is appropriate and efficient to the needs of our schools.

While our staffing is within acceptable parameters, we do believe that our organizational structure could be streamlined for efficiency. We recommend placing Lead Custodians in the Elementary and Middle schools under the direct supervision of the Regional Supervisors. This would clear up any confusion on the reporting structure, foster teamwork, and provide a better work environment. With regards to the Regional Supervisors and Leads, we do not believe that placing the Leads at night and eliminating the Regional Supervisors would help create efficiency. After further research and deliberation, this recent recommendation of creating Assistant Leads at night and promoting one of the supervisors to the Quality Control/Safety Officer is one of the more attractive options.

Albemarle County is fortunate to retain staffing to provide Level 2 APPA services to our clients. These services, from our inspections and Principal interviews, have a high value to our Principals, staff, teachers, and students. We hope to always be advancing our department to serve Albemarle County in the best ways possible.

APPENDIX A- ACPS Current Data (2014)

School	FY14/15 Student Enrollment				Permanent Sq.Ft.	Portables Sq.Ft.	Total Area	Custodians			Custodial Coverage	Evening Shift only Coverage
	K-5	Pre-K	SPED	Total Enrolled				Total	Day (Leads)	Night		
ELEMENTARY												
Agnor Hurt	487.00	16.00		503.00	69,756.00	3,000.00	72,756.00	4.00	1.00	3.00	18,189.00	24,252.00
Baker-Butler	615.00		8.00	623.00	84,365.00	-	84,365.00	4.00	1.00	3.00	21,091.00	28,121.00
Broadus Wood	310.00			310.00	49,852.00	-	49,852.00	3.00	1.00	2.00	16,617.00	24,926.00
Brownsville	701.00	16.00	8.00	725.00	90,550.00	-	90,550.00	5.50	1.00	4.50	16,463.00	20,122.00
Cale	642.00	16.00	8.00	666.00	91,307.00	1,000.00	92,307.00	5.00	1.00	4.00	18,461.00	23,076.00
Crozet	330.00			330.00	54,142.00	-	54,142.00	3.50	1.00	2.50	15,469.00	21,656.00
Greer	551.00	48.00		599.00	98,158.00	1,000.00	99,158.00	4.75	1.00	3.75	20,875.00	26,442.00
Hollymead	476.00	16.00	8.00	500.00	66,437.00	2,000.00	68,437.00	4.00	1.00	3.00	17,109.00	22,812.00
Meriwether	427.00			427.00	56,450.00	4,000.00	60,450.00	3.25	1.00	2.25	18,600.00	26,866.00
Murray Elem	252.00		8.00	260.00	42,057.00	1,000.00	43,057.00	3.00	1.00	2.00	14,352.00	21,528.00
Red Hill	154.00	16.00		170.00	28,950.00	4,000.00	32,950.00	2.00	1.00	1.00	16,475.00	32,950.00
Scottsville	169.00	16.00		185.00	32,954.00	2,000.00	34,954.00	2.12	1.00	1.12	16,487.00	31,208.00
Stone Robinson	403.00	16.00	16.00	435.00	71,100.00	-	71,100.00	3.75	1.00	2.75	18,960.00	25,854.00
Stony Point	232.00	16.00		248.00	38,500.00	4,000.00	42,500.00	3.00	1.00	2.00	14,166.00	21,250.00
Woodbrook	311.00	16.00	8.00	335.00	50,366.00	3,000.00	53,366.00	3.63	1.00	2.63	14,701.00	20,291.00
Yancey	119.00	16.00		135.00	27,230.00	2,000.00	29,230.00	2.00	1.00	1.00	14,615.00	29,230.00
TOTAL	6,179.00	208.00	64.00	6,451.00	952,174.00	27,000.00	979,174.00	56.50	16.00	40.50		
MIDDLE												
Burley		***Includes Charter		596.00	123,626.00	-	123,626.00	5.00	1.00	4.00	24,725.00	30,906.00
Henley				822.00	113,019.00	-	113,019.00	5.75	1.00	4.75	19,655.00	23,793.00
Jouett				589.00	93,271.00	-	93,271.00	4.75	1.00	3.75	19,636.00	24,872.00
Sutherland				582.00	94,440.00	-	94,440.00	4.50	1.00	3.50	20,986.00	26,982.00
Walton				354.00	98,340.00	-	98,340.00	4.00	1.00	3.00	24,585.00	32,780.00
TOTAL				2,943.00	522,696.00	-	522,696.00	24.00	5.00	19.00		
HIGH												
Albemarle				1,952.00	341,703.00	-	341,703.00	14.63	4.00	10.63	23,356.00	32,145.00
Monticello				1,086.00	249,195.00	-	249,195.00	11.00	3.00	8.00	22,654.00	31,149.00
Western				1,034.00	187,754.00	5,000.00	192,754.00	8.63	2.00	6.63	22,335.00	29,073.00
Murray High				109.00	29,415.00	-	29,415.00	1.63	-	1.63	18,046.00	18,046.00
TOTAL				4,181.00	808,067.00	5,000.00	813,067.00	35.89	9.00	26.89		
OTHER												
Prep/Ivy				up to 75	20,000.00	-	20,000.00	1.00	-	1.00	20,000.00	20,000.00
Floating Crew								5.00		5.00		
Regional Supervisors								2.80		2.80		
Assistant Director								1.00				
Program Manager												
				Total Enrollment	Total Perm. Sq.Ft.	Total Portable Sq.Ft.	Total Area	Total FTE**	Total Day/Leads	Total Night	Avg. Custodial Coverage	Evening AVG
TOTALS:				13,575.00	2,302,937.00	32,000.00	2,334,937.00	117.39	30.00	87.39	18,792.62	25,781.92
								**FLCR & SUP not incl		**FLCR & SUP not incl		

Appendix B

APPA Staffing Levels

Level 1—Orderly Spotlessness indicators

Floors and base molding shine and/or are bright and clean; colors are fresh. There is no buildup in corners or along walls. All vertical and horizontal surfaces have a freshly cleaned appearance and have no accumulation of dust, dirt, marks, streaks, smudges, or fingerprints. Lights all work and fixtures are clean. Washroom and shower fixtures and tile gleam and are odor free. Supplies are adequate. Trash containers and pencil sharpeners hold only daily waste and are clean and odor free.

Level 2—Ordinary Tidiness indicators

Same as Level 1 with the following exceptions: There can be up to two-day's worth of dust, dirt, stains, or streaks on floors and base molding. Dust, smudges, and fingerprints are noticeable on vertical and horizontal surfaces

Level 3—Casual Inattention indicators

Floors are swept or vacuumed clean, but upon close observation, there can be stains. A buildup of dirt and/or floor finish in corners and along walls can be seen. There are dull spots and/or matted carpet in walking lanes. There are streaks or splashes on base molding. All vertical and horizontal surfaces have obvious dust, dirt, marks, smudges, and fingerprints. Lamps all work and fixtures are clean. Trash containers and pencil sharpeners hold only daily waste and are clean and odor free.

Level 4—Moderate Dinginess indicators

Floors are swept or vacuumed clean, but are dull, dingy, and stained. There is a noticeable buildup of dirt and/or floor finish in corners and along walls. There is a dull path and/or obviously matted carpet in the walking lanes. Base molding is dull and dingy with streaks or splashes. All vertical and horizontal surfaces have conspicuous dust, dirt, marks, smudges, and fingerprints. Lamp fixtures are dirty, and some lamps (up to 5 percent) are burned out. Trash containers and pencil sharpeners have old trash and shavings. They are stained and marked. Trash containers smell sour.

Level 5—Unkempt Neglect indicators

Floors and carpets are dull, dirty, scuffed, and/or matted. There is a conspicuous buildup of old dirt and/or floor finish in corners and along walls. Base molding is dirty, stained, and streaked. Gum, stains, dirt, dust balls, and trash are broadcast. All vertical and horizontal surfaces have major accumulations of dust, dirt, smudges, and fingerprints, all of which will be difficult to remove. Lack of attention is obvious. Light fixtures are dirty with dust balls and flies. Many lamps (more than 5 percent) are burned out. Trash containers and pencil sharpeners overflow. They are stained and marked. Trash containers smell sour”

APPENDIX C
CASBO CUSTODIAL STAFFING

California Schools Custodial Formula												
School	Total Sq. Ft.	# of Teachers	# of Pupils**	# of Rooms*	1 per 18,000ft²	1 per 13 teachers	1 per 325 pupils	1 per 13 rooms	Total ÷ by 4	Less than 400: +.30	+School Modifier	Total FTE
Agnor Hurt	72,756.00	43	503.00	34	4.04	3.31	1.55	2.62	2.88	2.88	0.0625	2.94
Baker-Butler	84,365.00	47	623.00	37	4.69	3.62	1.92	2.85	3.27	3.27	0.0625	3.33
Broadus Wood	49,852.00	22	310.00	23	2.77	1.69	0.95	1.77	1.8	2.1	0.0625	2.16
Brownsville	90,550.00	49	725.00	42	5.03	3.77	2.23	3.23	3.57	3.57	0.0625	3.63
Cale	92,307.00	57	666.00	45	5.13	4.38	2.05	3.46	3.75	3.75	0.0625	3.81
Crozet	54,142.00	26	330.00	22	3.01	2	1.02	1.69	1.93	2.23	0.0625	2.29
Greer	99,158.00	55	599.00	40	5.51	4.23	1.84	3.08	3.67	3.67	0.0625	3.73
Hollymead	68,437.00	36	500.00	31	3.80	2.77	1.54	2.38	2.62	2.62	0.0625	2.68
Meriwether	60,450.00	29	427.00	28	3.36	2.23	1.31	2.15	2.26	2.26	0.0625	2.32
Murray Elem	43,057.00	19	260.00	20	2.39	1.46	0.80	1.54	1.55	1.85	0.0625	1.91
Red Hill	32,950.00	17	170.00	17	1.83	1.31	0.52	1.31	1.24	1.54	0.0625	1.60
Scottsville	34,954.00	17	185.00	16	1.94	1.31	0.57	1.23	1.26	1.56	0.0625	1.62
Stone Robinson	71,100.00	36	435.00	34	3.95	2.77	1.34	2.62	2.67	2.67	0.0625	2.73
Stony Point	42,500.00	21	248.00	22	2.36	1.62	0.76	1.69	1.61	1.91	0.0625	1.97
Woodbrook	53,366.00	30	335.00	28	2.96	2.31	1.03	2.15	2.11	2.41	0.0625	2.47
Yancey	29,230.00	14	135.00	13	1.62	1.08	0.42	1	1.03	1.33	0.0625	1.39
Burley	123,626.00	44	596.00	45	6.87	3.38	1.83	3.46	3.89	3.89	0.25	4.14
Henley	113,019.00	50	822.00	47	6.28	3.85	2.53	3.62	4.07	4.07	0.25	4.32
Jouett	93,271.00	54	589.00	55	5.18	4.15	1.81	4.23	3.84	3.84	0.25	4.09
Sutherland	94,440.00	42	582.00	42	5.25	3.23	1.79	3.23	3.37	3.37	0.25	3.62
Walton	98,340.00	34	354.00	32	5.46	2.62	1.09	2.46	2.91	3.21	0.25	3.46
Albemarle	341,703.00	147	1,952.00	99	18.98	11.31	6.01	7.62	10.98	10.98	0.5	11.48
Monticello	249,195.00	84	1,086.00	66	13.84	6.46	3.34	5.08	7.18	7.18	0.5	7.68
Western	192,754.00	74	1,034.00	65	10.71	5.69	3.18	5	5.43	5.73	0.5	6.23
Murray High	29,415.00	11	109.00	19	1.63	0.85	0.34	1.46	1.78	1.78	0.0625	1.84
Prep/Ivy	20,000.00	15	75.00	5	1.11	1.15	0.23	0.38	0.72	1.02	0.0625	1.08
*each trailer counted as 1 room **includes Pre-K and Charter											TOTAL FTE	88.57

APPENDIX D- APPA Staffing Formula

Routine Activities Level 2- Average Custodial Coverage & FTE's													
School	Gymnasium	Auditorium	Cafeteria	Media Center	Hallways	Offices	Entrance	Bathrooms	Heavy Use Classrooms	Classrooms	Cleanable area	FTE's Needed	AVG Custodial Coverage
	FTE	FTE	FTE	FTE	FTE	FTE	FTE	FTE	FTE	FTE			
Agnor Hurt	0.18		0.17	0.06	0.45	0.27	0.05	0.82	0.73	1.05	60,387.48	3.78	15,975.00
Baker-Butler	0.20		0.18	0.05	0.53	0.32	0.06	0.96	0.85	1.28	70,022.95	4.43	15,806.00
Broadus Wood	0.12		0.12	0.07	0.31	0.19	0.03	0.56	0.50	0.67	41,377.16	2.57	16,100.00
Brownsville	0.19		0.23	0.05	0.56	0.34	0.06	1.03	0.91	1.38	75,156.50	4.75	15,822.00
Cale	0.19		0.17	0.05	0.57	0.35	0.06	1.05	0.93	1.48	76,614.81	4.85	15,796.00
Crozet	0.12		0.16	0.04	0.34	0.20	0.04	0.61	0.54	0.78	44,937.86	2.83	15,879.00
Greer	0.21		0.21	0.06	0.62	0.37	0.06	1.12	1.00	1.56	82,301.14	5.21	15,796.00
Hollymead	0.19		0.35	0.04	0.43	0.26	0.04	0.78	0.69	0.82	56,802.71	3.60	15,778.00
Meriwether	0.13		0.19	0.09	0.38	0.23	0.04	0.69	0.61	0.81	50,173.50	3.17	15,827.00
Murray Elem	0.11		0.14	0.07	0.27	0.16	0.03	0.49	0.43	0.52	35,737.31	2.22	16,097.00
Red Hill	0.05		0.12	0.03	0.21	0.12	0.02	0.37	0.33	0.49	27,348.50	1.74	15,717.00
Scottsville	0.06		0.14	0.06	0.22	0.13	0.02	0.40	0.35	0.44	29,011.82	1.82	15,940.00
Stone Robinson	0.13		0.17	0.05	0.44	0.27	0.05	0.81	0.71	1.11	59,013.00	3.74	15,778.00
Stony Point	0.11		0.10	0.04	0.26	0.16	0.03	0.48	0.43	0.60	35,275.00	2.21	15,961.00
Woodbrook	0.10		0.15	0.05	0.33	0.20	0.03	0.60	0.54	0.79	44,293.78	2.79	15,875.00
Yancey	0.11		0.10	0.03	0.18	0.11	0.02	0.33	0.29	0.33	24,260.90	1.50	16,173.00
Burley	0.21		0.21	0.08	0.84	0.17	0.06	1.75		2.52	93,955.76	5.84	16,088.00
Henley	0.20		0.26	0.08	0.77	0.15	0.06	1.60		2.23	85,894.44	5.35	16,055.00
Jouett	0.20		0.26	0.09	0.63	0.13	0.05	1.32		1.71	70,885.96	4.39	16,147.00
Sutherland	0.20		0.35	0.09	0.64	0.13	0.05	1.34		1.65	71,774.40	4.45	16,129.00
Walton	0.26		0.26	0.07	0.66	0.13	0.05	1.38		1.74	74,019.00	4.55	16,267.00
Albemarle	0.71	0.73	0.51	0.16	3.85	1.01	0.11	3.33		6.31	304,115.67	16.72	18,188.00
Monticello	0.49	0.91	0.25	0.13	2.81	0.74	0.08	2.43		4.25	221,783.55	12.09	18,344.00
Western	0.71	0.46	0.55	0.09	2.17	0.57	0.06	1.88		2.78	171,551.06	9.27	18,506.00
Murray High	0.07				0.31	0.08	0.01	0.27		0.61	24,414.45	1.35	18,084.00
Prep/Ivy	0.06				0.12	0.08	0.01	0.23		0.45	16,600.00	0.95	17,473.00
												TOTAL FTE's	Avg. Custodian Coverage Total
												116.17	16,369.27

APPENDIX E
County and City Comparison- Actual Staffing Data

		Albemarle County		Chesterfield County		Prince William County		Loudon County		City of Alexandria		City of Newport News	
		Area	FTE	Area	FTE	Area	FTE	Area	FTE	Area	FTE	Area	FTE
Elem.	TOTALS	979,174	57.00	3,138,231	201.50	4,008,017	195.93	3,988,452	209.00	2,075,563	116.50	1,907,192	103.00
	SQ.FT/CUST.	17,178.49		15,574.35		20,456.37		19,083.50		17,815.99		18,516.43	
Middle	TOTALS	522,696	24.25	2,109,669	108.50	2,126,286	88.50	2,398,049	112.00	937,493	53.50	981,388	49.00
	SQ.FT/CUST.	21,554.47		19,443.95		24,025.83		21,411.15		17,523.23		20,028.33	
High	TOTALS	783,652	35.26	3,176,511	114.50	3,256,270	140.00	3,254,732	162.00	1,263,103	68.50	1,293,586	60.00
	SQ.FT/CUST.	22,224.96		27,742.45		23,259.07		20,090.94		18,439.46		21,559.77	
Other	TOTALS	49,415	2.63	177,521	17.50	750,987	42.80	256,011	12.50		-	175,489	13.00
	SQ.FT/CUST.	18,788.97		10,144.06		17,546.43		20,480.88				13,499.15	

This chart shows actual data from comparable school districts in the area. The row “TOTALS” displays the total square footage and full-time employees at elementary, middle, and high schools, and other buildings. It uses these totals to calculate the average square feet cleaned per custodian, shown in the row “SQ.FT/CUST.”.

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