Initial Operations and Maintenance Review

Example District

Submitted to:
Your Business Officer

Business Officer

Thank you for giving SMA the opportunity to make an initial review of your operations and maintenance efforts. The findings in this report are not meant to be the final word in understanding your facility function but a good initial step to improve your operations.

The facility services typically represent around 7 to 15 percent of your total budget yet this department controls many vital interests of the District. This report should give a beginning plan to improve facility operations.

We try to seek objective data about the real resources and issues of your facility functions, however no matter how diligent we are the fact remains that we won't see all your needs with full clarity. Please realize that your facility operations require a more detailed ongoing refinement after the initial recommendations are put in place.

Our goal is to be your support team in the improvement of facility services. We look foreword to helping you accomplish excellence in this vital part of your district.

Sincerely,

Michael Stapleton
Service Management Assist, LLC.

Service Management Assist
YOUR BEST FACILITIES SUPPORT SOLUTION™

Table of Contents for the Initial Operations and Maintenance Review

The Increased Scope of Education Facility Management

Through the years facility management has taken on an increased scope

Decades back a simple program

1. Custodial operations
2. Maintenance operations
3. Grounds operations
4. Electrical / gas utility
5. Pest control (in-house)
6. Playground equipment
7. Roofs
8. Safety – general
9. School closings
10. Vandalism

Some of the scope for current managers

1. Custodial operations
2. Maintenance operations
3. Grounds operations
4. Electrical / gas utility
5. Playground equipment
6. Pest control (in-house)
7. Roofs
8. Safety – general
9. School closings
10. Vandalism
11. Mold management
12. Asbestos (AHERA)
13. Carbon Dioxide testing
14. Lead in water
15. Natural gas volume purchasing
16. Electrical volume purchasing
17. Budget planning
18. Computerized Maintenance Management
19. Electromagnetic emissions
20. Emergency / disaster plans
21. Energy management systems
22. Energy education
23. Environmental issues
24. Rentals, community usage
25. ADA
26. Owners Construction Rep.
27. Indoor Air Quality
28. Lead in paint
29. Integrated Pest Management
30. Labor law issues
31. Purchased services management
32. Protective equipment & clothing
33. Radon Management
34. Hazardous Waste Removal
35. Relocatable classrooms
36. Right to Know Act
37. Underground storage tanks
38. Building Automation Systems
39. Blood borne pathogens
40. Disinfection

Facility duties have increased but the leadership and resources often have not

Initial Operations and Maintenance Review of Services with Recommendations

Note: The Initial Operations and Maintenance Review is designed to be a very cost-effective beginning review of the facility operations function. The recommendations will typically point to the areas that need improvement. Together we collaborate to form a plan for improving Operations and Maintenance.

Section 1:

Customer Interview Summaries:

Prime customer reviews:

Several “key customers" such as building principals are surveyed via internet questionnaires. This section summarizes the “key customers” perception of the facility service provided.

The following responses are divided into these categories; detailed response is found in the appendix:

Custodial Operations

Maintenance

Grounds Care

Facility Department Overall

Some of our clients also want a sampling of Teacher / Staff response.

Prime customer reviews:

Custodial Operations

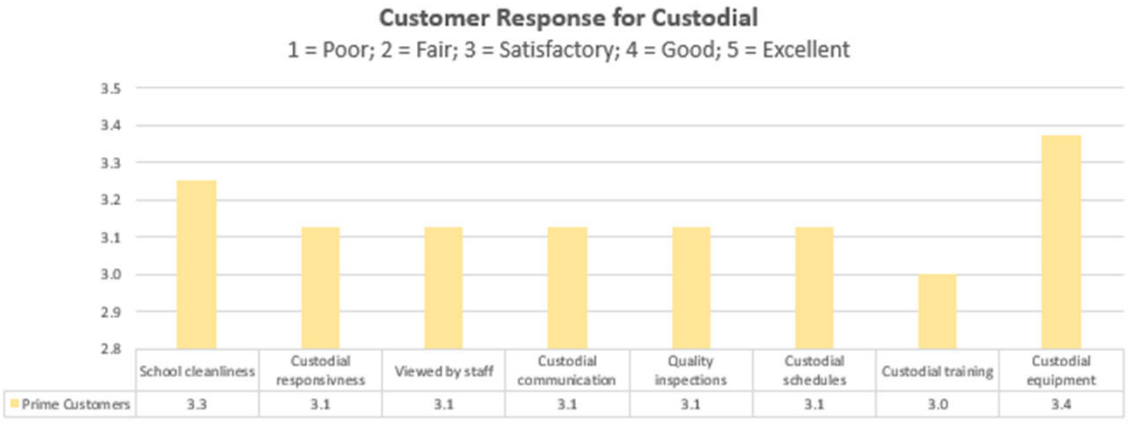
Several “key customers" such as building principals are surveyed via internet questionnaires. To what level are facility functions acceptable to these primary customers?

Custodial Customer Response

1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

Customers 8

Prime Customers	Avg. Score	Description
School cleanliness	3.3	Good to Satisfactory
Custodial responsivness	3.1	Satisfactory
Viewed by staff	3.1	Satisfactory
Custodial communication	3.1	Satisfactory
Quality inspections	3.1	Satisfactory
Custodial schedules	3.1	Satisfactory
Custodial training	3.0	Satisfactory
Custodial equipment	3.4	Good to Satisfactory
	3.2	Satisfactory



Prime customer reviews:

Maintenance

Several “key customers" such as building principals are surveyed via internet questionnaires. To what level are facility functions acceptable to these primary customers?

Maintenance Customer Response

1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

Customers 8

Prime Customers	Avg. Score	Description
Repair Speed	3.3	Good to Satisfactory
Viewed by Customers	3.1	Satisfactory
Communication	3.1	Satisfactory
Work Orders	3.1	Satisfactory
Technical Skill	3.1	Satisfactory
Flexibility	3.1	Satisfactory
Training	3.0	Satisfactory
	3.1	Satisfactory

Prime customer reviews:

Grounds Care

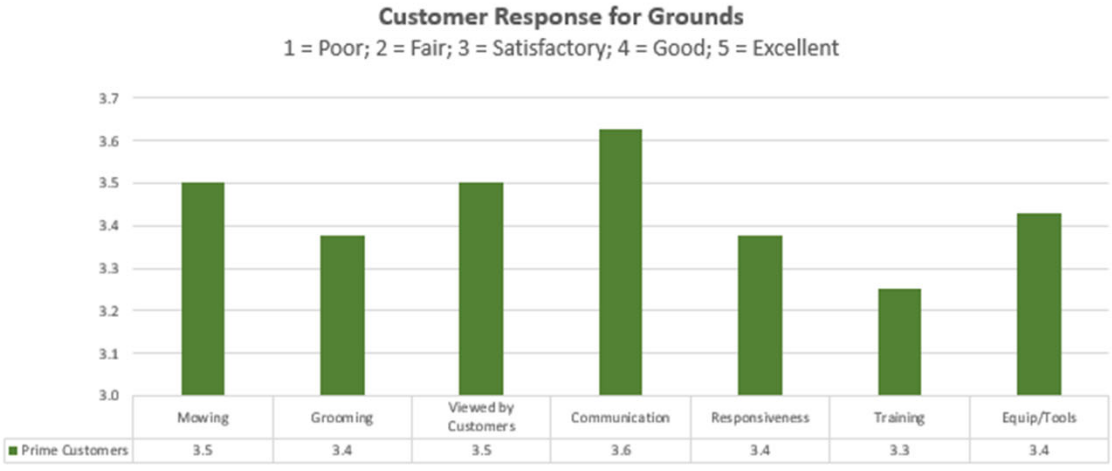
Several “key customers" such as building principals are surveyed via internet questionnaires. To what level are facility functions acceptable to these primary customers?

Grounds Customer Response

1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

Customers 8

Prime Customers	Avg. Score	Description
Mowing	3.5	Good to Satisfactory
Grooming	3.4	Good to Satisfactory
Viewed by Customers	3.5	Good to Satisfactory
Communication	3.6	Good to Satisfactory
Responsiveness	3.4	Good to Satisfactory
Training	3.3	Good to Satisfactory
Equip/Tools	3.4	Good to Satisfactory
	3.4	Good to Satisfactory



Prime customer reviews:

Facility Department Overall / Leadership

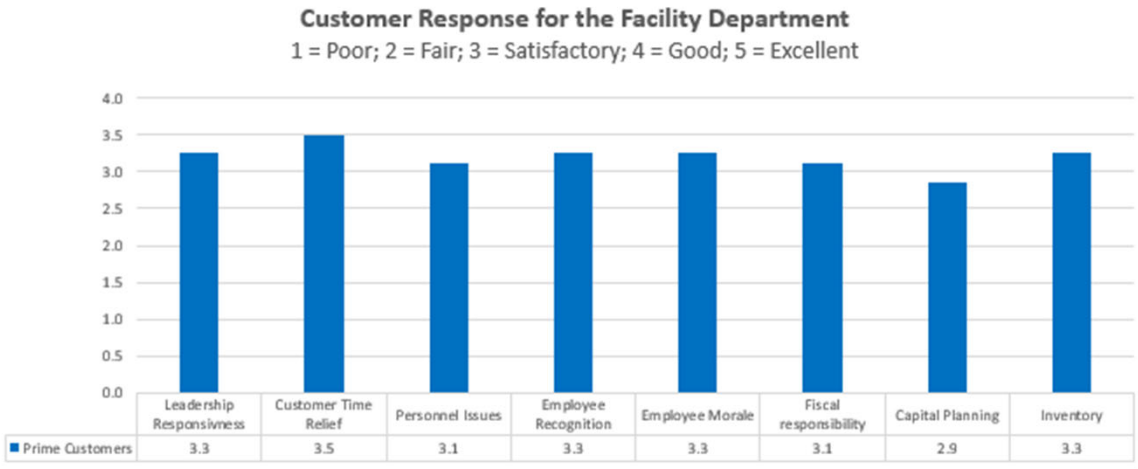
Several “key customers" such as building principals are surveyed via internet questionnaires. To what level are facility functions acceptable to these primary customers?

Facility Department Customer Response

Customers 8

1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

Prime Customers	Avg. Score	Description
Leadership Responsivness	3.3	Good to Satisfactory
Customer Time Relief	3.5	Good to Satisfactory
Personnel Issues	3.1	Satisfactory
Employee Recognition	3.3	Good to Satisfactory
Employee Morale	3.3	Good to Satisfactory
Fiscal responsibility	3.1	Satisfactory
Capital Planning	2.9	Satisfactory
Inventory	3.3	Good to Satisfactory
	3.2	Good to Satisfactory



Teacher / Staff Response

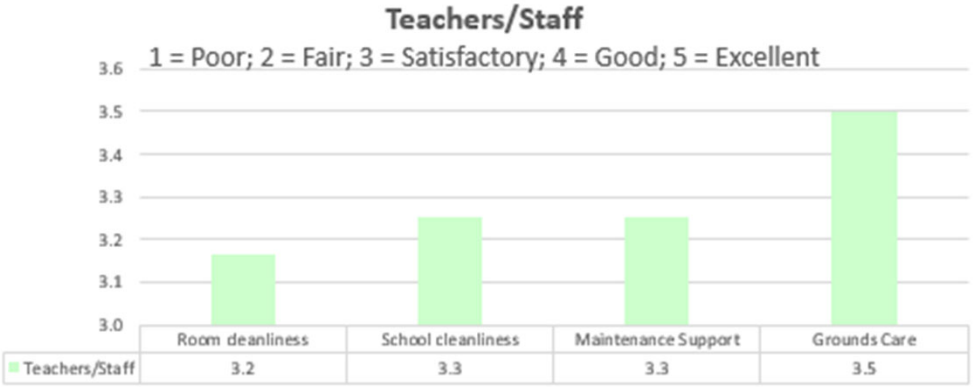
“Customers" such as teachers and staff members are surveyed via internet questionnaires. To what level are facility functions acceptable to these customers?

Teacher/Staff Response

1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

Customers 12

Teachers/Staff	Avg. Score	Description
Room cleanliness	3.2	Satisfactory
School cleanliness	3.3	Good to Satisfactory
Maintenance Support	3.3	Good to Satisfactory
Grounds Care	3.5	Good to Satisfactory
	3.3	Good to Satisfactory



Section 2:

Benchmarking:

SMA uses benchmarks specific to your type of school district.

Most of the benchmark sets are from budget data from school districts that have had a SMA benchmark review.

Please Note: Benchmarks are only to be used as a beginning point; more analysis is needed to set staffing and budget levels.

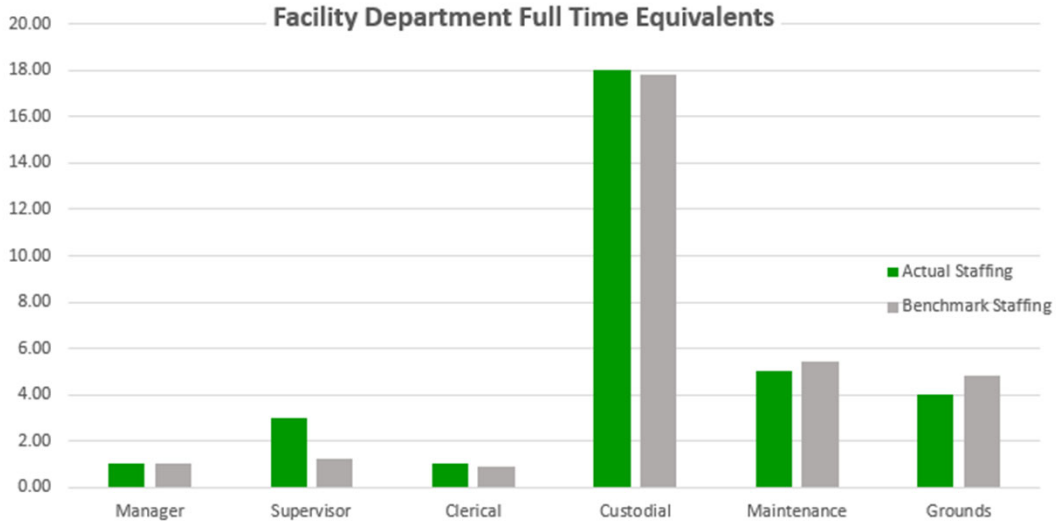
Your staffing levels are compared to benchmarks

Facility Department Resources

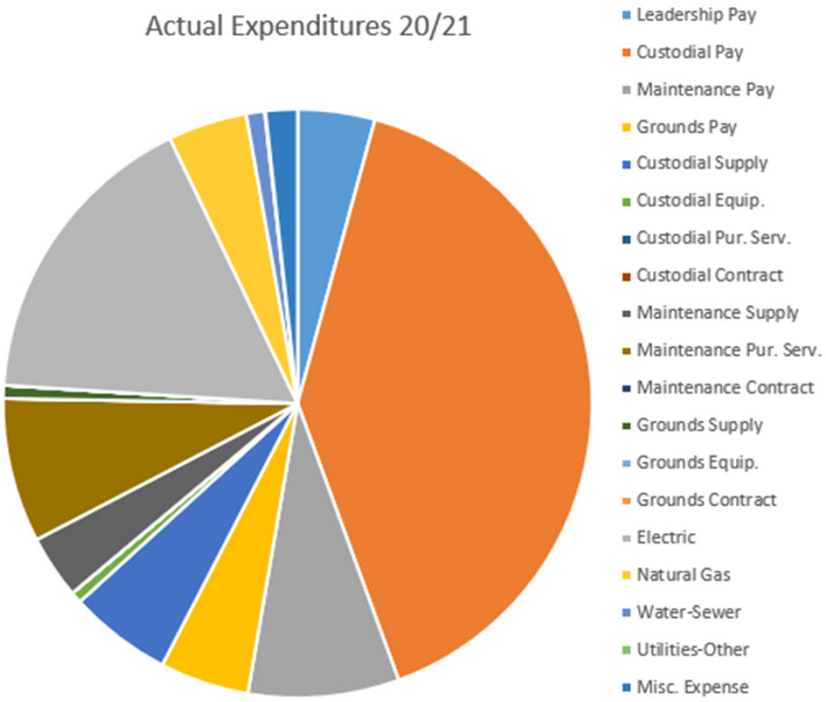
Square Footage	500,050
Acres	150

Position Summary in Full Time Equivalents

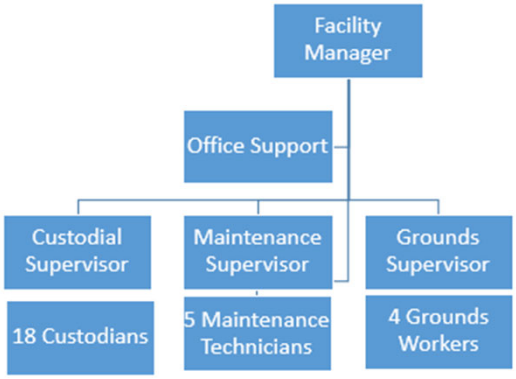
	Benchmark	Actual
Manager	1.00	1.00
Supervisor	1.25	3.00
Clerical	0.88	1.00
Custodial	17.86	18.00
Maintenance	5.43	5.00
Grounds	4.84	4.00
Total FTE's	31.25	32.00



District facility expenditures for last year



Current Facility Department Organization



Section 3:

Custodial Operations Review:

Developing statistically driven custodial assignments.

Many districts use a formula of a standard of minutes per classroom or square footage assigned to determined staffing levels. SMA uses the five ASBO levels to describe each campus; each level is dived into quarters to show workload and cleaning pacing, (i.e., an 800-sf carpeted classroom at level 2.25 will have 17 minutes for cleaning yet the same area at level 3.5 is paced at 9 minutes). School campuses also have significant custodial work driven by school activity, (i.e., opening the campus, cafeteria coverage, event coverage etc.), these efforts were measured by interview. Properly written custodial schedules will consider staffing including the following factors:

- Square footage measurement of each room/space.
- Type of area (classroom, office, corridor etc.).
- Floor surface type (carpet, hard surface)
- Daily clean fixtures (toilets, urinals, sinks and drinking fountains).
- Determining high and low usage areas.
- The “Other Duties” (work driven by school activity).

Schedules should have suggested minutes to clean each area and a progression to accomplish the assigned area. The areas are typically colored on campus floorplans.

Any schedule writing process should be followed by adjustment requests as the assignments are implemented, custodial feedback is critical in improving the flow and accuracy of the schedules.

This review will provide good beginning data concerning your custodial operations. Full custodial schedule development is a separate project.

Objectives of Custodial Scheduling

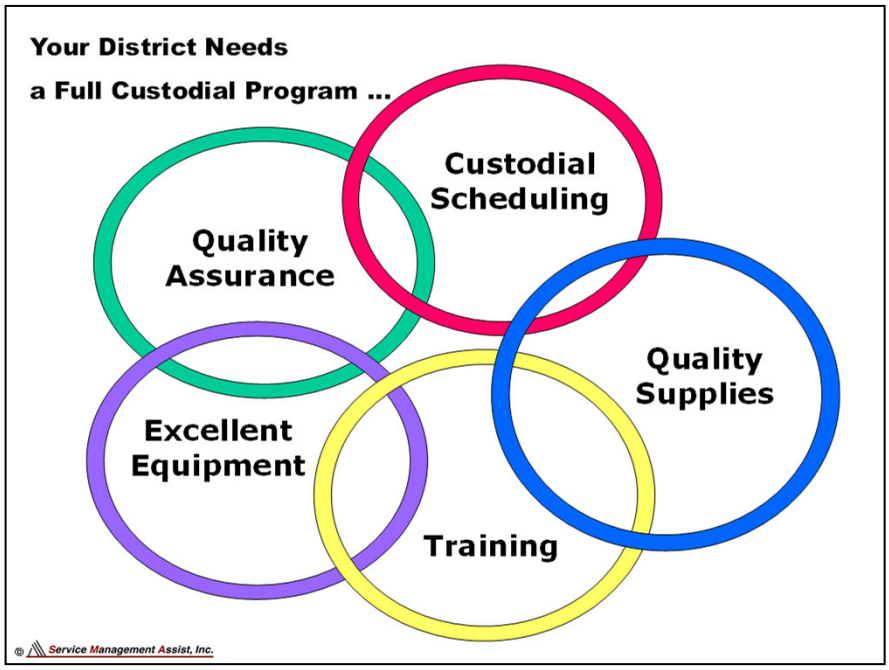
Why Manage Custodial Schedules?

Why go through all the effort of detailed balanced Custodial Schedules?

Quality of cleaning:

Specific assignments of cleaning with clear expectations provide the basis for clean schools.

The classic elements of the custodial program include:



Balanced Workload:

Work assignments are balanced between the custodians within each campus and labor resources are balanced between the campuses.

Fiscal responsibility:

Operations & Maintenance is typically 7% to 15% of the total district budget the average custodial payroll and benefits make up 32% of the O&M budget.

Most attempts to manage the expense of O&M will have to deal with custodial payroll and benefits. The scheduling program allows for a statistical basis to determine your custodial assignments.

Program elements

The interview questionnaire of custodial employees rates the level of support provided for the elements of your custodial program. 22 custodial employees gave their opinions of support.

Custodial Program Rating

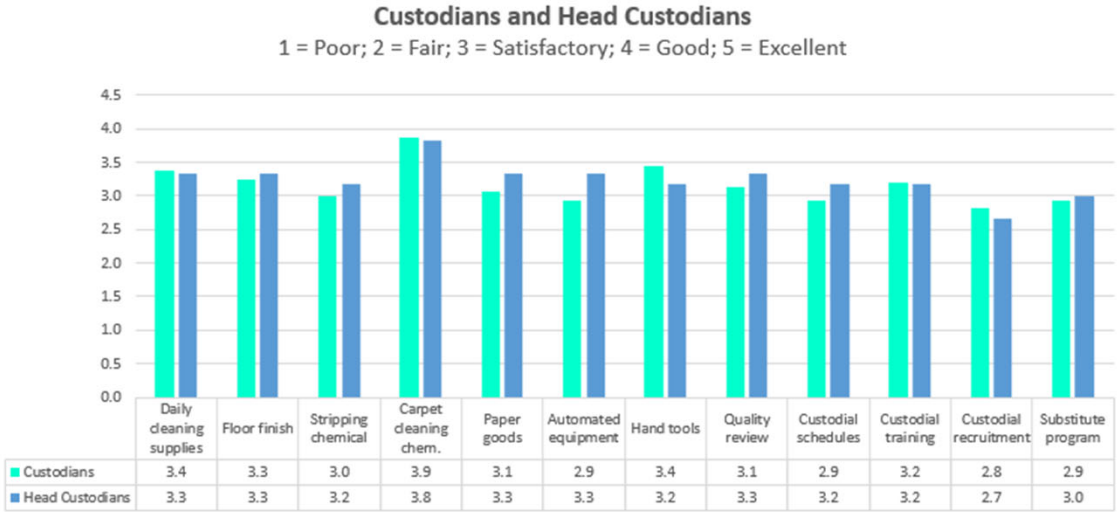
1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

Custodians 16

Custodians	Avg. Score	Description
Daily cleaning supplies	3.4	Good to Satisfactory
Floor finish	3.3	Good to Satisfactory
Stripping chemical	3.0	Satisfactory
Carpet cleaning chem.	3.9	Good
Paper goods	3.1	Satisfactory
Automated equipment	2.9	Satisfactory
Hand tools	3.4	Good to Satisfactory
Quality review	3.1	Satisfactory
Custodial schedules	2.9	Satisfactory
Custodial training	3.2	Satisfactory
Custodial recruitment	2.8	Satisfactory
Substitute program	2.9	Satisfactory
	3.2	Satisfactory

Head Cust. 6

Head Custodians	Avg. Score	Description
Daily cleaning supplies	3.3	Good to Satisfactory
Floor finish	3.3	Good to Satisfactory
Stripping chemical	3.2	Satisfactory
Carpet cleaning chem.	3.8	Good
Paper goods	3.3	Good to Satisfactory
Automated equipment	3.3	Good to Satisfactory
Hand tools	3.2	Satisfactory
Quality review	3.3	Good to Satisfactory
Custodial schedules	3.2	Satisfactory
Custodial training	3.2	Satisfactory
Custodial recruitment	2.7	Satisfactory to Fair
Substitute program	3.0	Satisfactory
	3.2	Good to Satisfactory



Association of School Business Officials Custodial Levels

SMA uses the five ASBO levels as a point of reference to determine where your District rates. Listed here are the ASBO levels:

Levels of Cleaning / Density of Staffing

ESTABLISHING EXPECTATIONS FOR CUSTODIAL EFFORTS

Planners, administrators, and community members must agree on what constitutes "cleanliness." While there is not a nationwide standard for describing standards of cleanliness, a five-tiered system of expectations is emerging to help guide decision-making:

Level 1 cleaning results in a "spotless" building, as might normally be found in a hospital environment or corporate suite. At this level, a custodian with proper supplies and tools can clean approximately 10,000 to 11,000 (California equivalent: 7,000 to 7,700) square feet in an 8-hour period.

Level 2 cleaning is the uppermost standard for most school cleaning, and is generally reserved for restrooms, special education areas, kindergarten areas, or food service areas. A custodian can clean approximately 18,000 to 20,000 (California equivalent: 12,600 to 14,000) square feet in an 8-hour shift.

Level 3 cleaning is the norm for most school facilities. It is acceptable to most stakeholders and does not pose any health issues. A custodian can clean approximately 28,000 to 31,000 (California equivalent: 19,600 to 21,700) square feet in 8 hours.

Level 4 cleaning is not normally acceptable in a school environment. Classrooms would be cleaned every other day, carpets would be vacuumed every third day, and dusting would occur once a month. At this level, a custodian can clean 45,000 to 50,000 (California equivalent: 31,500 to 35,000) square feet in 8 hours.

Level 5 cleaning can very rapidly lead to an unhealthy situation. Trash cans might be emptied, and carpets vacuumed on a weekly basis. One custodian can clean 85,000 to 90,000 (California equivalent: 59,500 to 63,000) square feet in an 8-hour period.

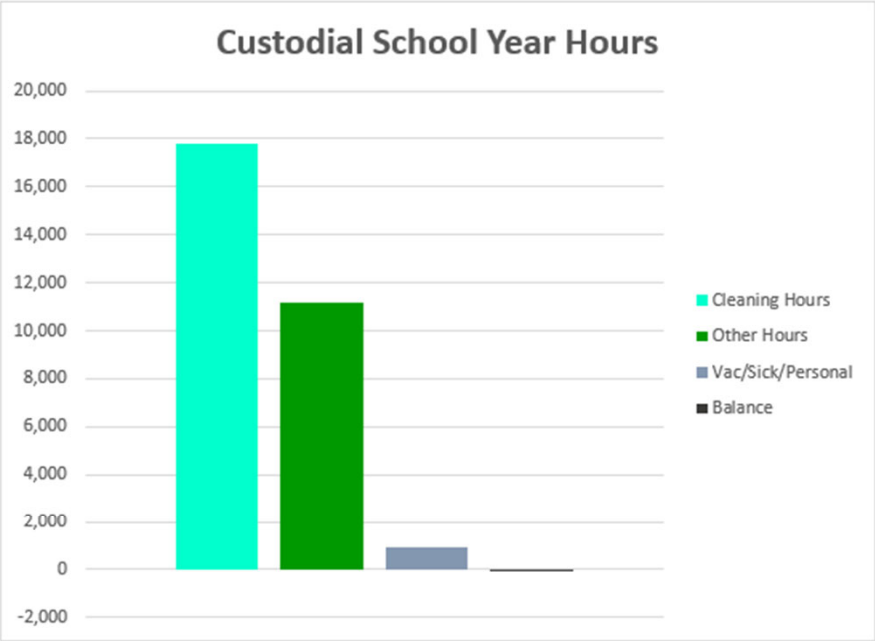
The figures above are estimates. The actual number of square feet per shift a custodian can clean will depend on additional variables, including the type of flooring, wall covers, and number of windows, all of which must be taken into account when determining workload expectations. Taken from page 82 of The Planning Guide for Maintaining School Facilities by the School

Facilities Maintenance Task Force; National Forum on Education Statistics and the Association of School Business Officials International (ASBO®) Sponsored by the National Center for Education Statistics and the National Cooperative Education Statistics System February 2003.
http://www.emsc.nysed.gov/facplan/publicat/Planning_Guide_Maintaining_School_Facilities_040303.pdf

California square footage needs to be increased by 30% to be equivalent to the national numbers. California schools have reduced square footage in corridors, gyms and cafeterias due to campus configuration verses a self-contained school building. Campuses have more custodial outside and entrance work. 22,663 in California is equivalent to 29,462 square feet in these ASBO Levels.

Current Custodial Levels of Workload & Staffing

This graph shows our modeling of school year hours for the elements of your program



Example District

School Session Custodial Staffing Analysis		**Level 2.75**
School Session Hours Available	**29,878**	
Cleaning Hours on the Schedules	**17,789**	Current Staffing
Other Duties Beyond Cleaning	**11,193**	19.00
(Breaks, Events, Maintenance, Grounds, Lunch coverage, Double cleaning etc.)		
Vacation, Sick, Personal Business etc.	**896**	Needed Staffing
Balance of School Year Hours	**0**	19.00
F.T. Positions extra (positive) or needed (negative) for:	**(0.0)**	

Level 2.75 Rm Type	**SF**	**Fix**	**Minutes**	**2 Day**	**Wkly Min.**
CR, C	900	0	15	30	75
CR, HS	900	0	12	23	59

Custodial STATS by Campus

Use the explanations (1-9) below for detailed information about the custodial model.

Observations of Custodial Operations

Example District

Consider these statistical results for your schools ...

Here is an explanation of each column:

1. Sq. Ft. = Calculated gross square footage from either district statisics or a per student formula.
2. FTE = The number of full time equivalent custodians assigned to the school
3. SF/Cust = Average gross square footage per custodian
4. Clean Hrs. = The hours per day of cleaning time based on several factors (SF, Level, Other)
5. Design Other = The design, from interviews, of hours per day for "Other" duties beyond cleaning
6. System Other = Hours based on benchmarking for "Other" duties beyond cleaning
7. Level = The staffing level (see the page on "Levels of Cleaning / Density of Staffing")
8. Students = The number of students (typically from the NCES site)
9. SF/Student = Average net square footage per student

	1	2	3	4	5	6	7	8	9
STATS	Sq. Ft.	Cust. FTE	SF/Cust	Clean. Hrs.	Design Other	System Other	Level	Students	SF/Stud.
Example District	500,050	19.00	26,318	98.62	56.38	63.35	2.75	3,425	146
	500,050	19.00				63.35		3,425	

STATS	Sq. Ft.	Cust. FTE	SF/Cust	Clean. Hrs.	Design Other	System Other	Level	Students	SF/Stud.
ES1	65,700	2.50	26,280	12.96	9.29	8.33	2.75	450	146
ES2	70,080	2.50	28,032	12.23	8.59	8.69	3.00	480	146
ES3	59,860	2.50	23,944	13.60	9.59	7.85	2.50	410	146
ES4	68,620	2.50	27,448	11.97	7.99	8.57	3.00	470	146
HS	132,130	5.00	26,426	26.06	16.56	16.71	2.75	905	146
MS	103,660	4.00	25,915	20.44	11.56	13.20	2.75	710	146

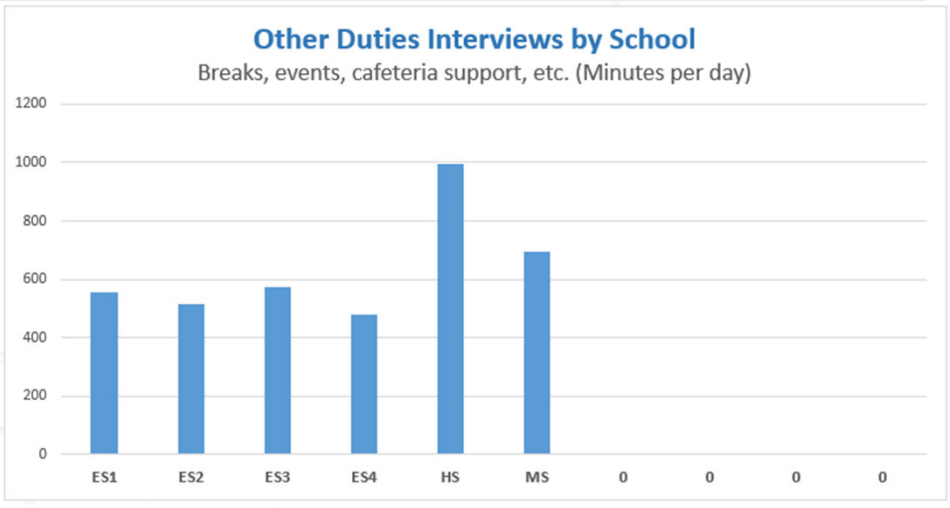
OTHER Duties--min./day gleaned from interviews

Example District

"OTHER" duties full institution review:

	Min/Day	Decription	Estimated Min/Day	Hrs/Day	FTE:
	1330	Benefit	1330	22.2	3.2
1	78	Event Support	365	1.3	0.2
2	435	Direct Assign: 911	308	7.3	1.0
3	435	Cafeteria Support	284	7.3	1.0
4	114	Double Cleaning	195	1.9	0.3
5	93	Maintenance Duties	123	1.6	0.2
6	144	Lock Buildings	103	2.4	0.3
7	138	Open Buildings	103	2.3	0.3
8	294	Grounds(Snow/Mow)	62	4.9	0.7
9	22	Shipping / Receiving	62	0.4	0.1
10	108	Clerical	41	1.8	0.3
11	0	Recycling	31	0.0	0.0
12	72	Quality Checks	16	1.2	0.2
13	65	Graffiti Removal	0	1.1	0.2
14	15	Laundry	0	0.3	0.0
15	0	Milk Delivery	0	0.0	0.0
16	0	Other Duties		0.0	0.0
17	6	Playground Inspection	0	0.1	0.0
18	0	Pool		0.0	0.0
19	11	Security		0.2	0.0
20	0	Sign Maintenance		0.0	0.0
21	57	Stock (i.e. copy ppr)		1.0	0.1
22	12	Traffic Control		0.2	0.0
23	6	Vending Machines		0.1	0.0
				0.0	0.0
				0.0	0.0
				0.0	0.0
				0.0	0.0
				0.0	0.0
			Totals	57.2	8.18

Interview		OTHER Duties w/o Benefits		Estimated	Bal. vs System
3434	57.2	2104	35.1	3022	411



Section 4:

Maintenance Review:

The interview questionnaire of maintenance employees rates the level of support provided for the elements of your maintenance program. 5 maintenance employees gave their opinions of support.

Maintenance Program Rating 5 Reviews

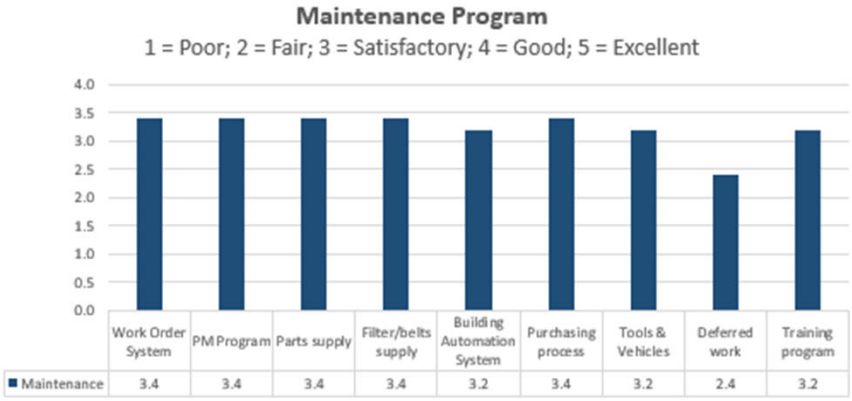
1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

Maintenance staff questionnaire:

	Avg. Score	Description
Work Order System	3.4	Good to Satisfactory
PM Program	3.4	Good to Satisfactory
Parts supply	3.4	Good to Satisfactory
Filter/belts supply	3.4	Good to Satisfactory
Building Automation System	3.2	Good to Satisfactory
Purchasing process	3.4	Good to Satisfactory
Tools & Vehicles	3.2	Good to Satisfactory
Deferred work	2.4	Satisfactory to Fair
Training program	3.2	Good to Satisfactory
	3.2	Good to Satisfactory

Maintenance staff time usage beyond corrective and planned maintenance work orders.

	Hours/Day
Clerical work	3.5
Purchasing	0.4
Rounds routine	4.9
Travel	1.7
Minor construction	4.1
Other non-maintenance duties	5.3
	19.8
	2.8 FTE



Work Order Analysis:

Interview feedback from your maintenance employees and maintenance leadership is used to assess the balance of your maintenance program.

Work Order Analysis

Maint. Wk. 5

Maintenance staff questionnaire:

	Avg. Score	Description
Work Order System	3.4	Good to Satisfactory
PM Program	3.4	Good to Satisfactory
Deferred work	2.4	Satisfactory to Fair
Average Response	3.1	Satisfactory

			Cor.WO/Day	Cor.WOs	Ave Hrs
Productive hours per year:	8160		15	1.25	
Corrective WOs	4173			51%	
Minor Construction	901	Maint. Staff Int.		11%	
PM Program Model	1063	Profiled		13%	
Purch/Rounds/Travel/Other	2415	Maint. Staff Int.		30%	
Balance	(391)				

Planned Maintenance Model:

A building equipment inventory obtained by interviews and patterned questionnaires of your maintenance leadership result in the following PM calendar and estimated hours per month to accomplish the PM program.

Example District _ Planned Maintenance Calendar

	DESCRIPTION (Limit 220 Entries)	Time	Day	1-J	2-F	3-M	4-A	5-M	6-J	7-J	8-A	9-S	10-O	11-N	12-D	Assign	Sequence
2	002 Air Compressor	0.30	20	1	2	3	4	5	6	7	8	9	10	11	12	MD Routing	MO
3	003 Air Conditioning Split System	1.00	20	1			4			7			10			MD Routing	3MO
5	005 Air Handling Unit	1.25	20	1				5				9				MD Routing	4MO
9	009 Hot Water Boiler	6.00	20						6							MD Routing	YR
10	010 Steam Boiler	8.00	20									9				MD Routing	YR
12	012 Chiller	8.00	20												12	MD Routing	YR
13	013 Condensing Unit	1.50	20				4			7						MD Routing	YR-4, YR-7
15	015 Cooling Tower	4.00	20				4						10			MD Routing	6MO
17	017 Dust Collection	1.00	20		2				6				10			MD Routing	4MO
18	018 Electric Heater	0.50	20		2				6				10			MD Routing	4MO
19	019 Energy Recovery Unit	1.00	20			3				7				11		MD Routing	4MO
20	020 Evaporative Cooler	1.50	20				4			7						MD Routing	YR-4, YR-7
22	022 Fan Coil Unit	0.30	20	1				5				9				MD Routing	4MO
28	028 Heat Exchanger	0.25	20						6							MD Routing	YR
30	030 Heat Pump (Split)	1.50	20			3			6			9			12	MD Routing	3MO
31	031 Heat Pump (Water Source)	0.75	20			3			6			9			12	MD Routing	3MO
33	033 Make-up Air Unit	0.30	20			3						9				MD Routing	6MO
34	034 Package Heating & Cooling	1.50	20		2			5			8			11		MD Routing	3MO
38	038 Roof Top Unit	1.50	20			3			6			9			12	MD Routing	3MO
55	055 Window Air Conditioner	1.00	20				4									MD Routing	YR
153	153 Clother Dryer	0.50	20					5								MD Routing	YR
154	154 Clother Washer	0.50	20					5								MD Routing	YR
155	155 Drinking Fountain	0.33	20		2						8					MD Routing	6MO
160	160 Pump Plumbing	0.30	20		2				6				10			MD Routing	4MO
161	161 Sump Pump	1.00	20		2				6				10			MD Routing	4MO
162	162 Rest Room Batteries	2.00	20								8					MD Routing	YR
170	170 Waterless Urinal	0.75	20							7						MD Routing	YR
172	172 Domestic Hot Water Heater	1.00	20	1												MD Routing	YR
176	176 Water Softener	0.50	20		2				6				10			MD Routing	4MO
202	202 Deep Fat Fryer	0.50	20						6							MD Routing	YR
203	203 Dishwasher	0.75	20		2				6				10			MD Routing	4MO
204	204 Food Warmer	0.30	20						6							MD Routing	YR
205	205 Commercial Freezer	0.30	20		2				6				10			MD Routing	4MO
206	206 Ice Machine	0.75	20		2				6				10			MD Routing	4MO
207	207 Kettle	0.28	20						6							MD Routing	3MO
209	209 Mixer	0.27	20		2			5			8			11		MD Routing	3MO
210	210 Commercial Oven	0.50	20						6							MD Routing	YR
211	211 Convection Oven	0.50	20						6							MD Routing	YR
213	213 Commercial Range	0.50	20						6							MD Routing	YR
215	215 Commercial Refrigerator	0.50	20		2				6				10			MD Routing	4MO
250	250 Emergency Generator	1.00	20	1	2	3	4	5	6	7	8	9	10	11	12	MD Routing	MO
252	252 Exit Light	1.00	20								8					MD Routing	YR
260	260 Transformer	0.50	20						6							MD Routing	YR
304	304 Inspt Back Flow Preventers	1.00	20						6							MD Routing	YR

Section 5:
Grounds Care Review:

The interview questionnaire of grounds employees rates the level of support provided for the elements of your grounds program. 4 grounds employees gave their opinions of support.

Grounds Program Rating

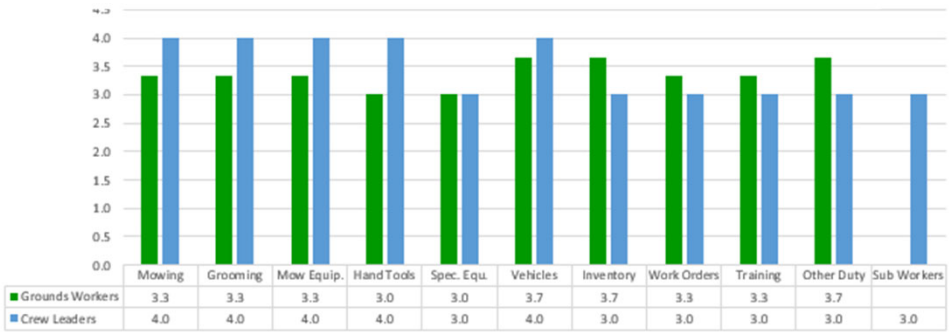
1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

Grds Wkrs 3

Grounds Workers	Avg. Score	Description
Mowing	3.3	Good to Satisfactory
Grooming	3.3	Good to Satisfactory
Mow Equip.	3.3	Good to Satisfactory
Hand Tools	3.0	Satisfactory
Spec. Equ.	3.0	Satisfactory
Vehicles	3.7	Good to Satisfactory
Inventory	3.7	Good to Satisfactory
Work Orders	3.3	Good to Satisfactory
Training	3.3	Good to Satisfactory
Other Duty	3.7	Good to Satisfactory
	3.4	Good to Satisfactory

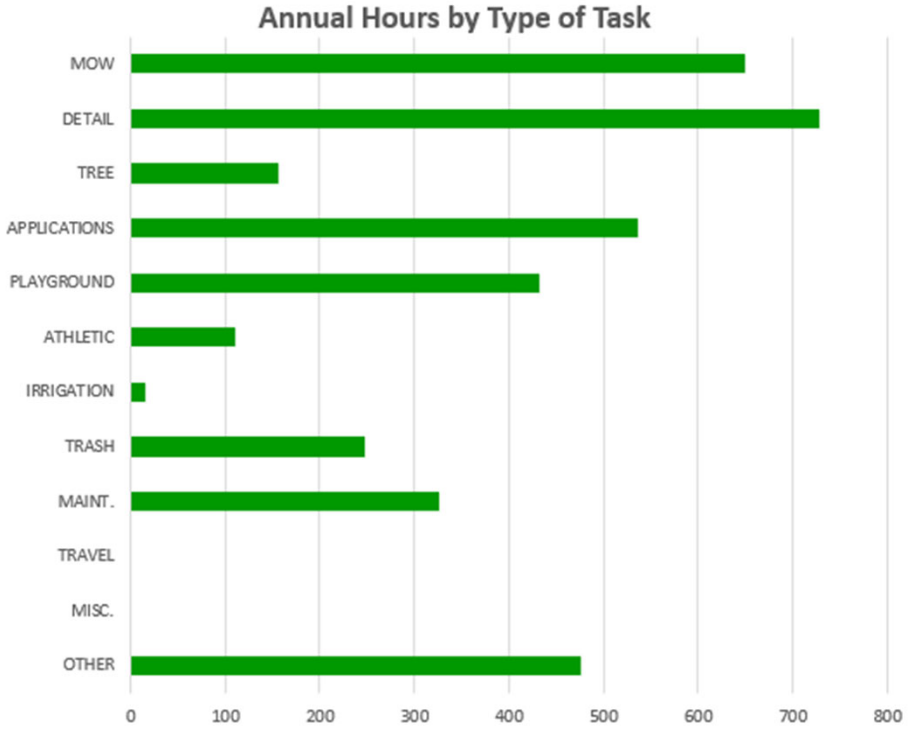
Crew Leader 1

Crew Leads	Avg. Score	Description
Mowing	4.0	Good
Grooming	4.0	Good
Mow Equip.	4.0	Good
Hand Tools	4.0	Good
Spec. Equ.	3.0	Satisfactory
Vehicles	4.0	Good
Inventory	3.0	Satisfactory
Work Orders	3.0	Satisfactory
Training	3.0	Satisfactory
Other Duty	3.0	Satisfactory
Sub Workers	3.0	Satisfactory
	3.5	Good to Satisfactory



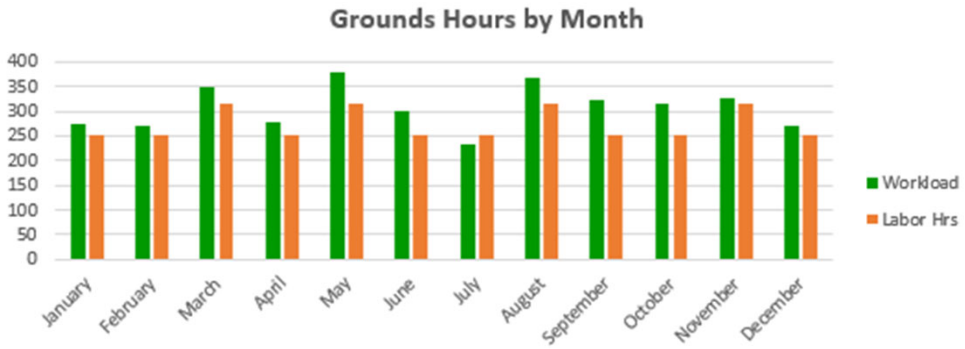
District Grounds Program Hours by Task

Interviews provide time estimates for grounds tasks. Individual school campuses are in the appendix.

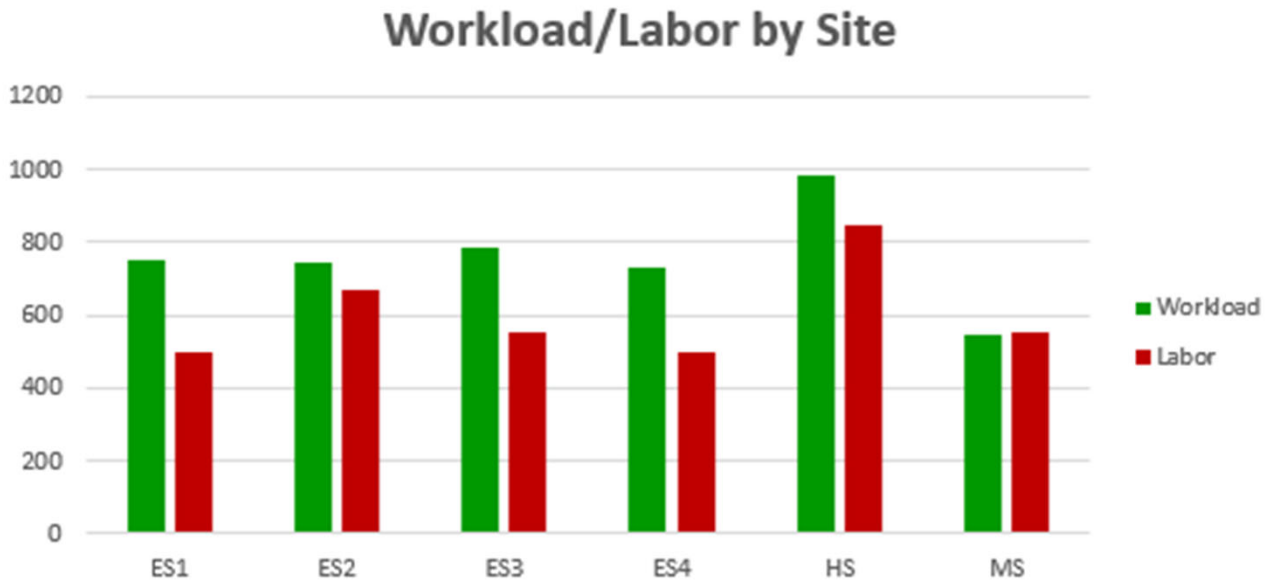


District Grounds Program Hours per Month

Interviews provide time estimates for grounds hours per month. Individual school campuses are in the appendix.



Campus Based Analysis for the Growing Season: Each campus will typically vary in the amount of time needed for upkeep, below is an estimate by campus of workload (estimated time needed to accomplish all grounds duties) and labor (the number of grounds hours allotted for each campus.



Section 6:

Observations and Recommendations:

Listed are common questions that drive the recommendations provided from this report.

Question 1:
Is your institution investing the typical amount of annual budget in operations and maintenance?

Question 2:
Do you have staffing levels that match your institution’s expected level of service in custodial, maintenance and grounds?

Facility Operations Observations and Recommendations
(continued)

Question 3:
Do you have enough leadership resources? Properly skilled and motivated leadership more than pays for itself in refined systems and performance.

Question 4:
Which of the classic facility management systems have need of refined implementation?

Corrective work order flow
Planned maintenance
Custodial scheduling
Grounds plan calendar
Project management
Energy management
Personnel management
Safety program
Financial management

Facility Operations Observations and Recommendations
(continued)

Question 5:
What equipment and tools are needed to support the productivity and quality of the program?

Custodial

Maintenance

Grounds

Question 6:
What support does your facility management team need to build a better facility team?

Question 7:

Are you setting your facility employees up for success?
If not, what can be done to improve their work situation?

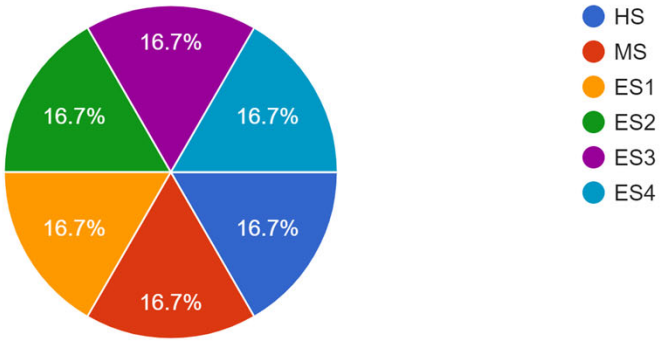
Section 7:

Appendix:

Teacher/Staff

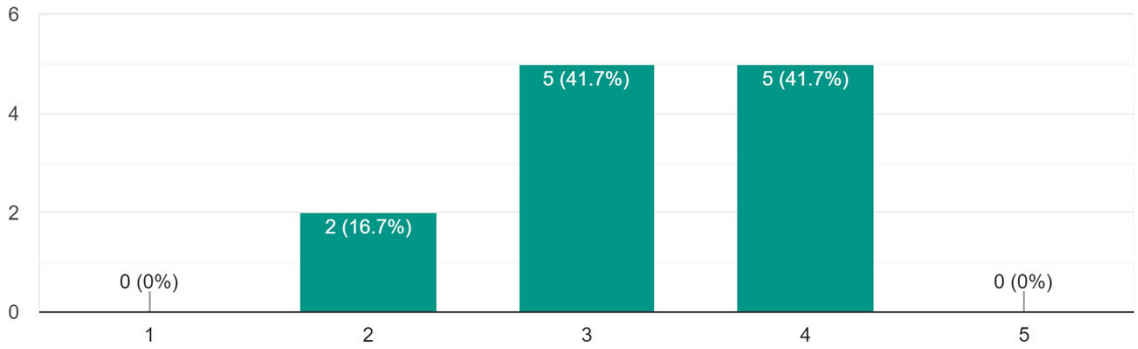
Please list your School/building:

12 responses



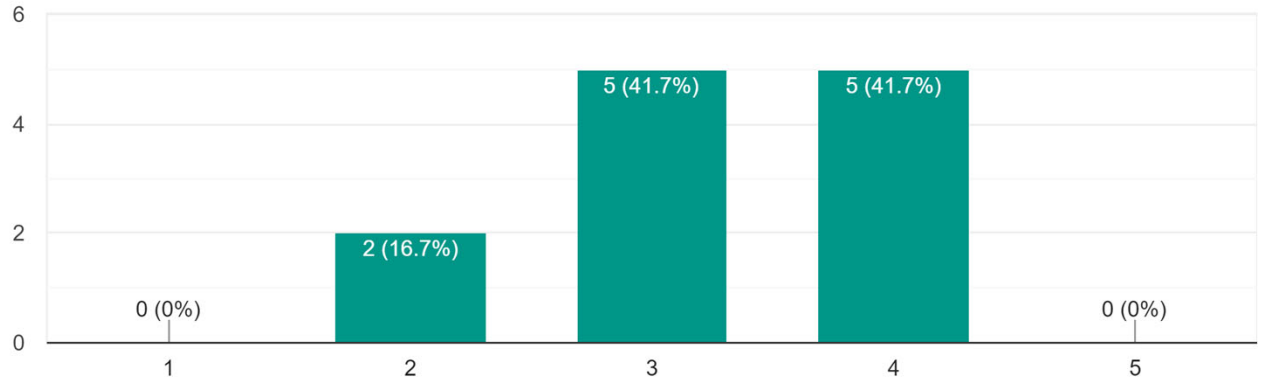
1. How clean is your room? (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent)

12 responses



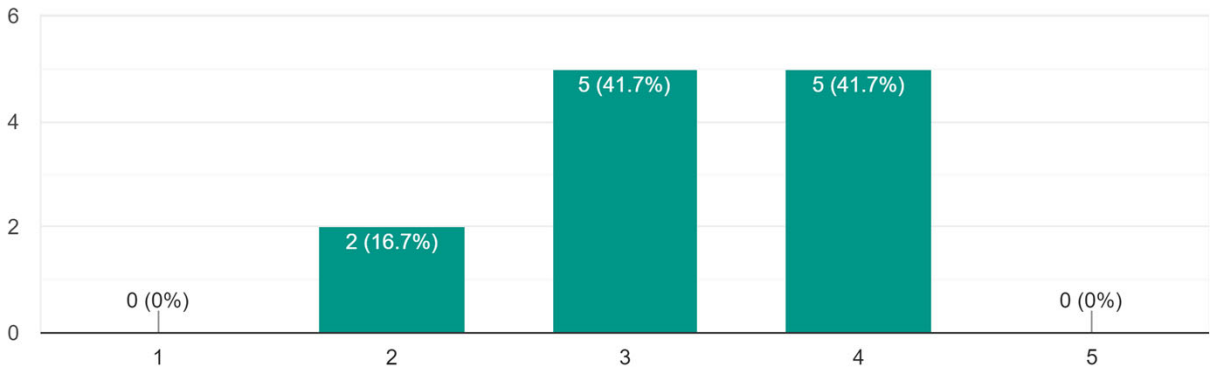
2. How clean is your school? (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent)

12 responses



3. How is your maintenance repair support? (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent)

12 responses

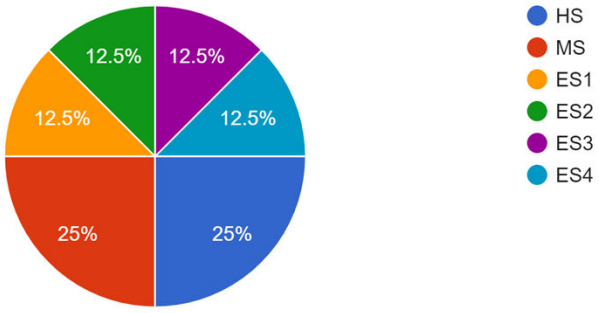


Note: Typically, there will be 3 more graphs with comments.

Primary Customer

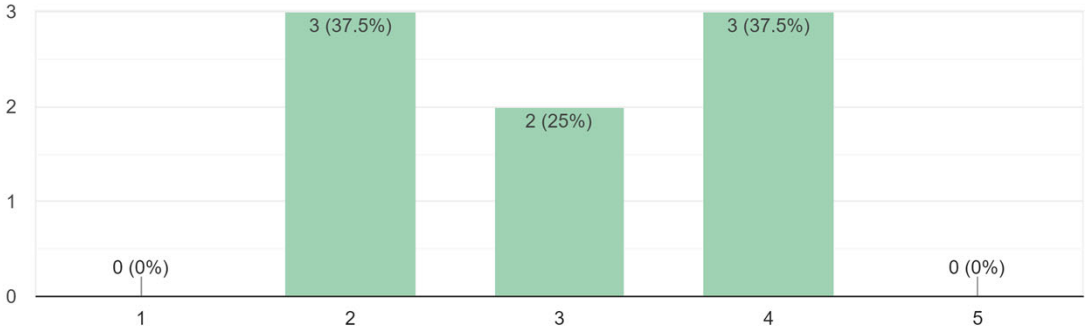
Please list your School/building:

8 responses



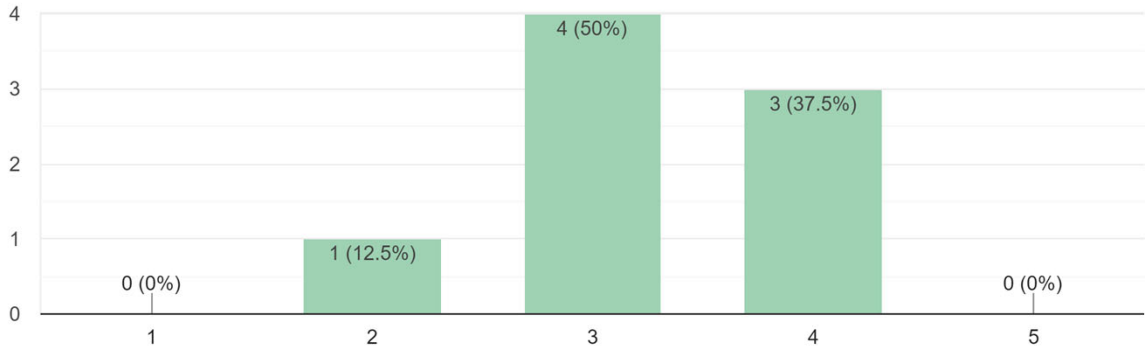
How do facility issues rate within your complete set of challenges? 1 = Very High; 2 = High; 3 = Moderate; 4 = Low; 5 = Very Low

8 responses



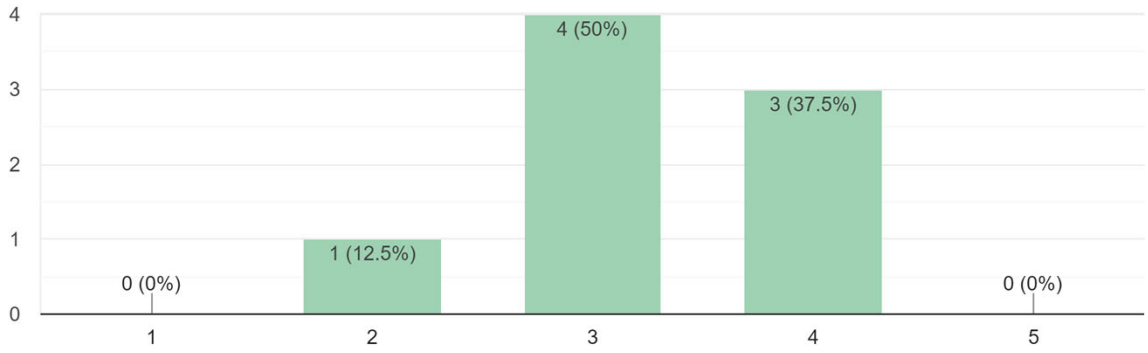
Estimate your % of your total time at work spent on facility issues: 1 = Over 50%; 2 = 30%; 3 = 20%; 4 = 10%; 5 = Under 10%

8 responses



Rate the cleanliness of your campus buildings, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

8 responses



Note: Typically, there will be 33 more graphs with comments.

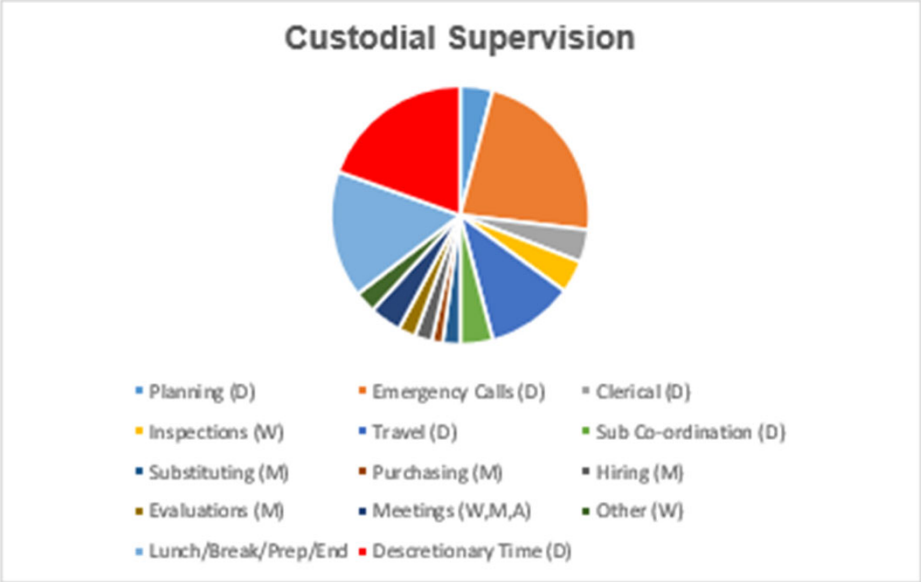
Custodial Supervisor(s) Time Analysis:

Supervisors often are over-programmed with busy work leaving little time for program improvement. This interview is designed to help understand what supervisors spend time doing.

Custodial Supervisor(s) Time Analysis

911 Average 20 # Supv. 1

	Routine Processes:	Min / Day	
1	Planning (D)	18	4.1%
3	Emergency Calls (D)	100	22.7%
5	Clerical (D)	18	4.1%
7	Inspections (W)	18	4.1%
9	Travel (D)	48	10.9%
11	Sub Co-ordination (D)	18	4.1%
12	Substituting (M)	10	2.2%
14	Purchasing (M)	6	1.4%
16	Hiring (M)	10	2.2%
17	Evaluations (M)	10	2.2%
19	Meetings (W,M,A)	17	4.0%
20	Other (W)	12	2.7%
21	Lunch/Break/Prep/End	70	15.9%
22	Descretionary Time (D	86	19.5%
Other Hrs	**5.90**	**Other Min**	**354**

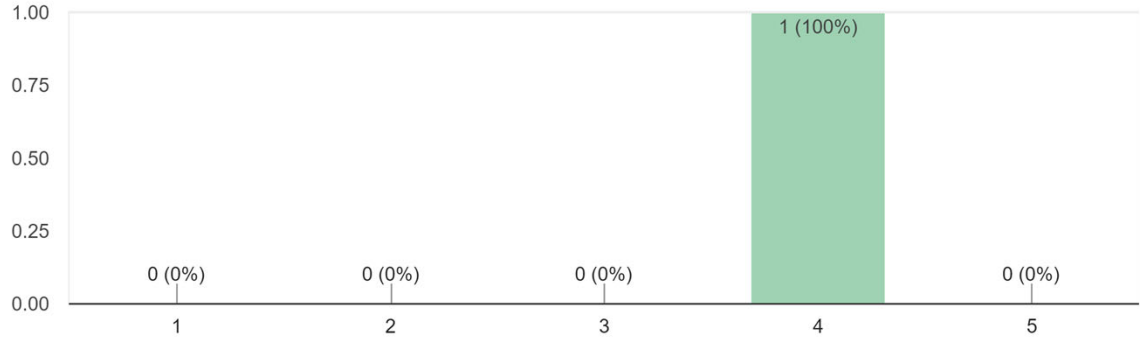


Supervisory 32.0% Reactive/Overhead 68.0%

Custodial Supervisor(s)

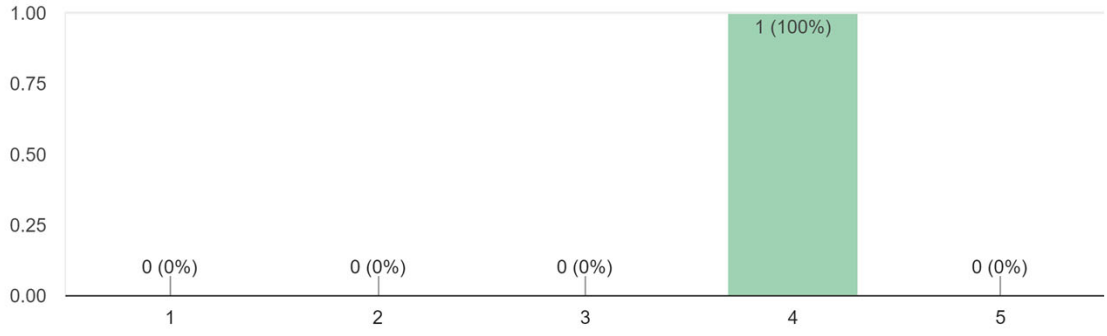
Rate your daily cleaning supplies, general purpose cleaner, glass cleaner, degreaser, etc., (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



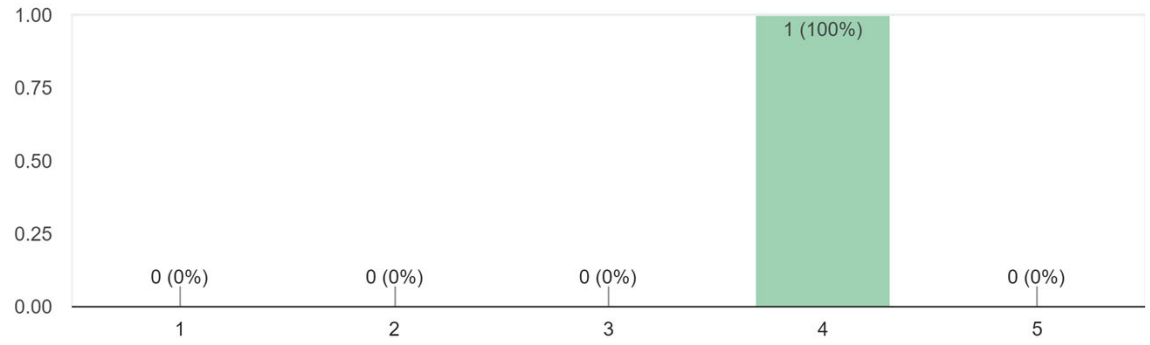
Rate your floor finish, shine, durability, scuff resistance, easily buffed etc., (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



Rate your stripper/shower scrub chemicals, high performance, fast acting, low odor, etc., (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

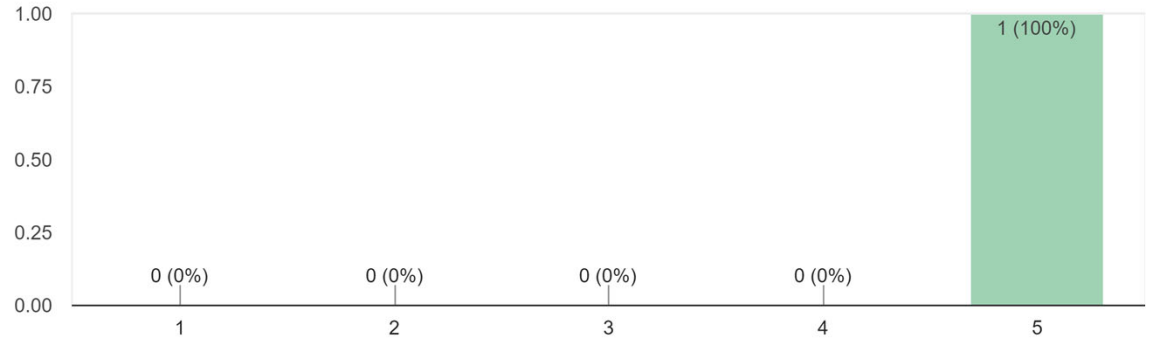
1 response



Comments on stripper/shower scrub chemicals:1 response
works great just a bit stinky

Rate your carpet cleaning chemicals, high performance, low odor, etc., (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



Comments on carpet cleaning chemicals:1 response
Best we have had!

Note: Typically, there will be 9 more graphs with comments.

Other duties

The “Other Duties” interview of Custodians is designed to quantify the duties driven by school activities that are beyond cleaning the buildings each day. A typical California school district of one million square feet will have around 45 custodians, compare that to an office complex of the same square footage requiring around 23 custodians. The difference between an office complex and school are the many duties required beyond cleaning for the school custodians. Quantifying the “Other Duties” task workload is best accomplished by interviewing the custodians. Listed below are some typical tasks quantified in the SMA interviews:

Event Support (Set-up and tear down for athletics, arts, clubs, etc.)

Cafeteria Support

Directly Assigned Calls (911 type reactive requests typically by radio)

Shipping / Receiving

Opening the Campus

Locking the Campus

Grounds Duties (Leaves and trash clean-up)

Maintenance Duties (light maintenance, i.e., bulb replacement, desk repairs, etc.)

Double Cleaning (Some areas may require more than one clean per day)

Graffiti Removal

Laundry (mops, rags, etc.)

Playground Inspections

Quality Checks

Recycling

Security

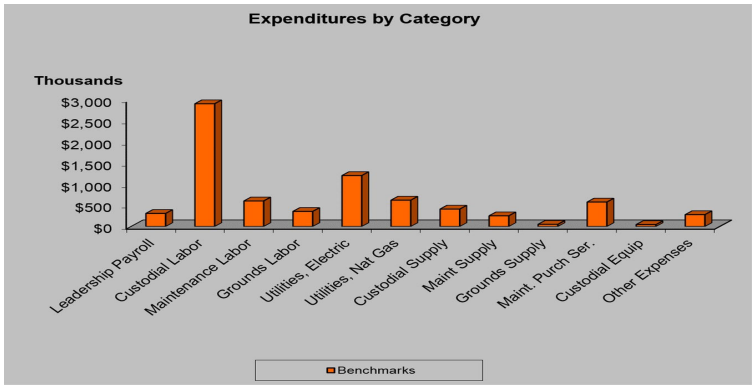
Stocking Materials (i.e., copy paper)

Clerical Work (Work orders, e-mail etc.)

Traffic Control

Custodial Equipment Program:

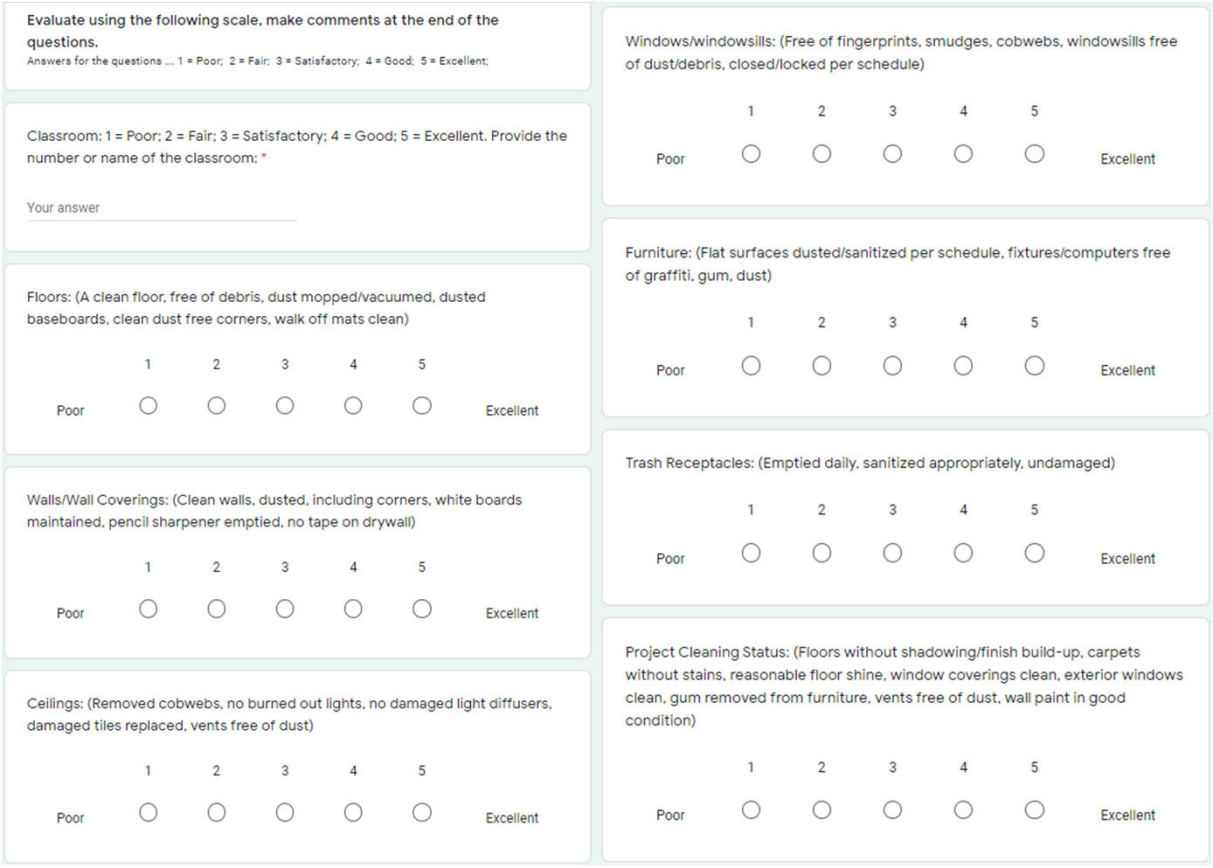
Equipment and tool investments should be considered in light of the graph below. This graph represents the proportion of spending in a typical school district facility operations budget. Note the high percentage allotted to custodial labor and benefits (FUSD custodial loaded payroll over $10 million). High quality tools and equipment make the Custodians more productive and is a tactical use of your significant payroll investment.



Our recommendation is the establishment of a budget line of proportional to your total custodial equipment value divided by five. This will allow for a depreciation cycle of five years for custodial equipment. Consider thinking of custodial equipment more like school bus depreciation/replacement cycle.
Interview of Miley Torres Custodial Repair Person (seven years in this position). Here are some of Miley's thoughts about District custodial equipment:
The submission of three quotes requirement often results in the lowest priced, lowest quality, piece of equipment.
We would have a better program if we could standardize all equipment.
Repairs and obtaining of parts are more difficult with a wide range equipment manufactures.
We emphasize buying simple, durable equipment because we need to keep it for a long time.
There seems to be a general reduction in durability of newer custodial equipment.
Our repair frequencies: 1st Backpack Vacuums, 2nd Wet Vacuums, 3rd Floor Machines, 4th Ride on Scrubbers, 5th Extractors etc.
Our Custodial vehicles are old.

Custodial Quality Assurance:

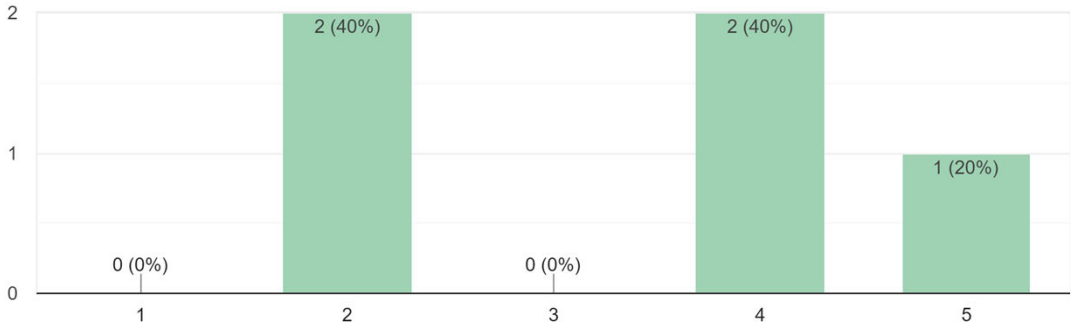
All districts need a regular sampling of quality … a set pattern of inspections of custodial quality. Ideally giving each building a weekly supervisory visit. These visits may very well be happening on an informal basis already, but quality is not measured systematically. Custodial inspections are a necessary next step to ensure that the department can tract custodial services. The following inspection format can be posted with the automated results to a spreadsheet. This Google form can be posted quickly using a smart phone, shown here is one section of the inspection:



Maintenance Worker

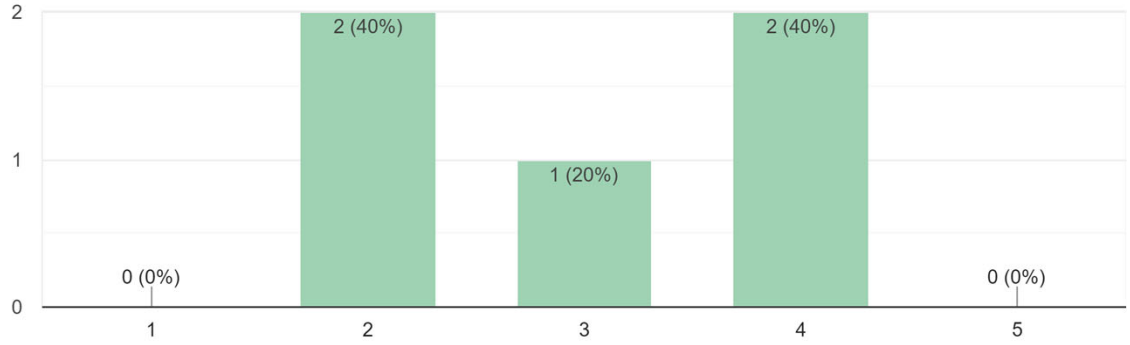
Rate the effectiveness & ease of use of the work order system: 1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

5 responses



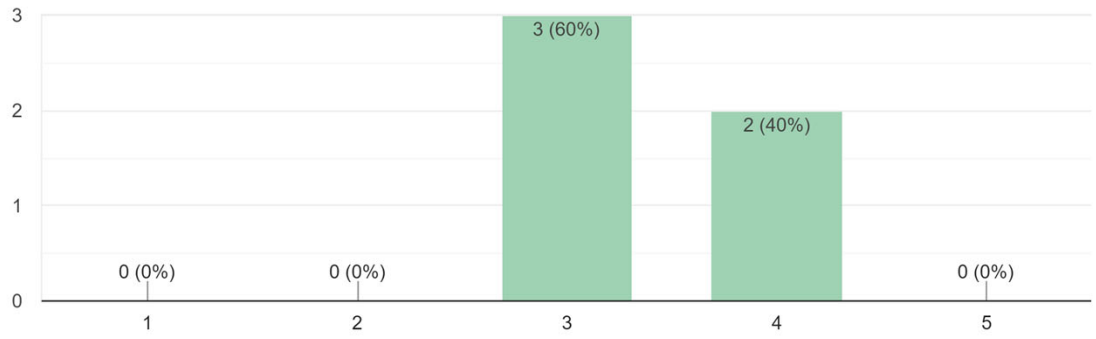
Rate the effectiveness & ease of use of the PM program: 1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

5 responses



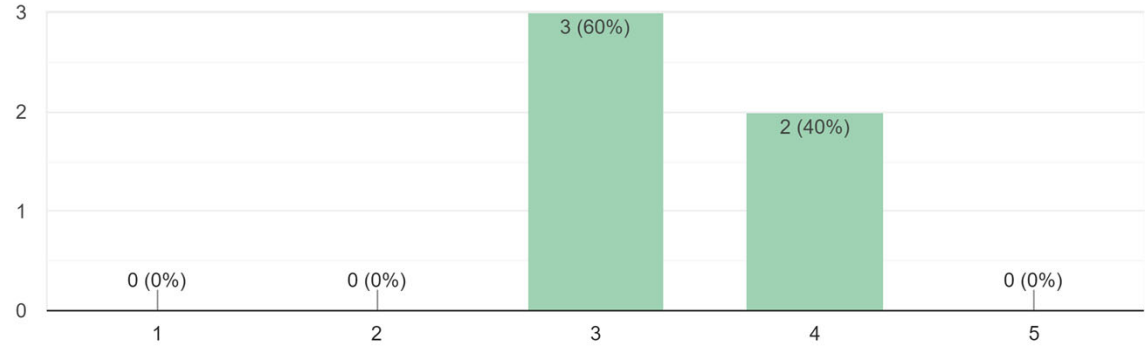
Rate the Maintenance parts supply inventory in District: 1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

5 responses



Rate the filter/belts supply inventory in District: 1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

5 responses



Note: Typically, there will be 9 more graphs with comments.

Maintenance Supervisor(s) Time Analysis:

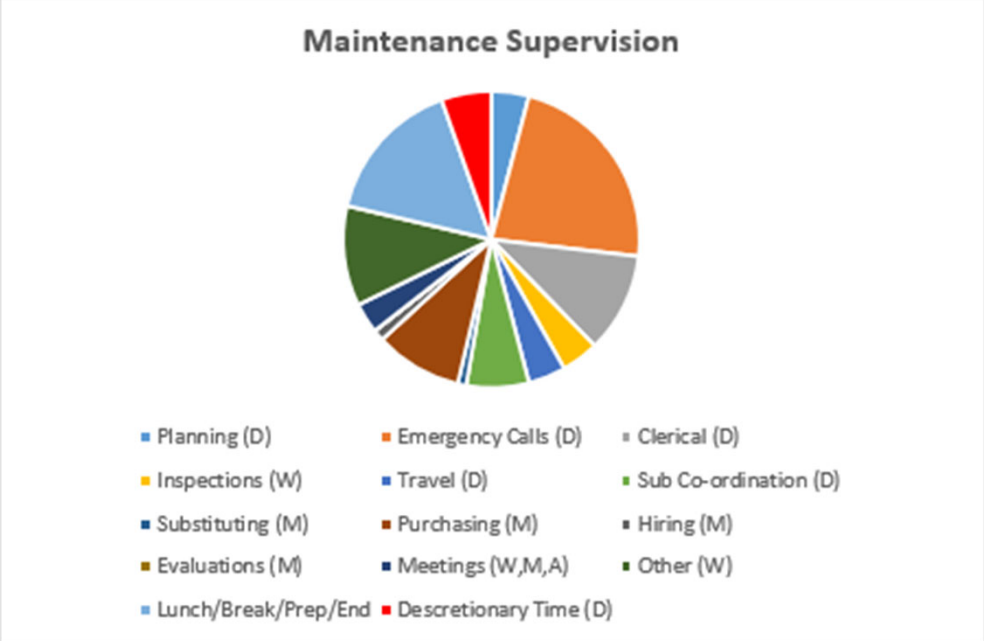
Supervisors often are over-programmed with busy work leaving little time for program improvement. This interview is designed to help understand what supervisors spend time doing.

Maintenance Supervisor(s) Time Analysis

911 Average 20 # Supv. 1

Routine Processes:	Min./Day	
1 Planning (D)	18	4.1%
3 Emergency Calls (D)	100	22.7%
5 Clerical (D)	48	10.9%
7 Inspections (W)	18	4.1%
9 Travel (D)	18	4.1%
11 Sub Co-ordination (D	30	6.8%
12 Substituting (M)	4	0.9%
14 Purchasing (M)	42	9.5%
16 Hiring (M)	5	1.2%
17 Evaluations (M)	0	0.0%
19 Meetings (W,M,A)	15	3.3%
20 Other (W)	48	10.9%
21 Lunch/Break/Prep/Er	70	15.9%
22 Descretionary Time (	24	5.4%

Other Hrs 6.93 Other Min. 416

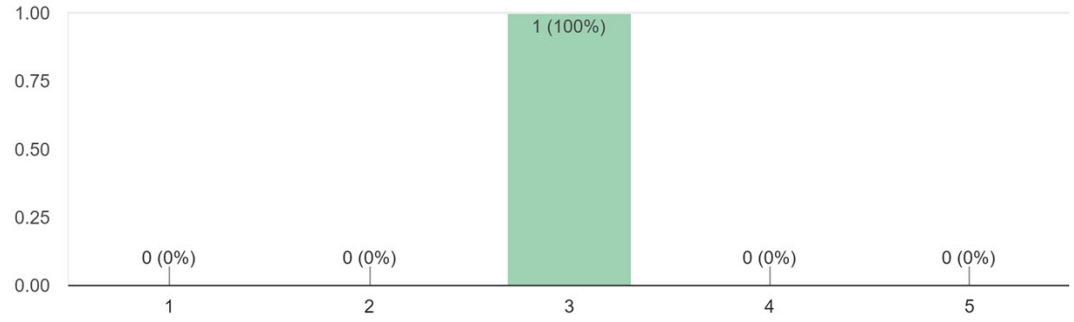


Supervisory 14.9% Reactive/Overhead 85.1%

Maintenance Supervisor

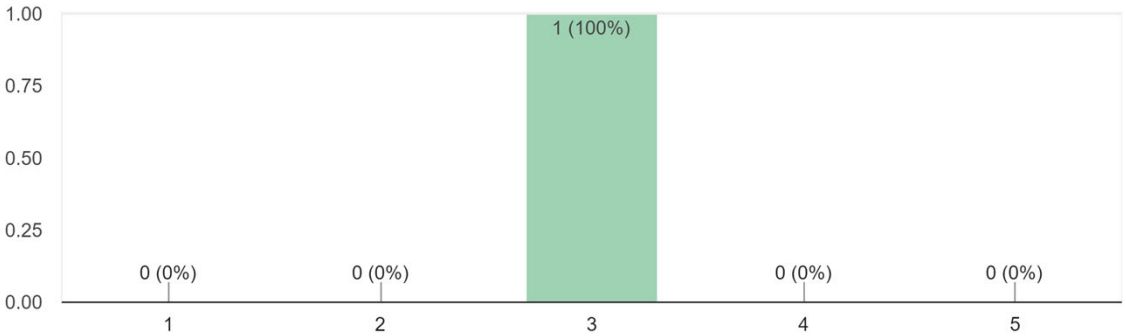
Rate the effectiveness & ease of use of the work order system: 1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

1 response



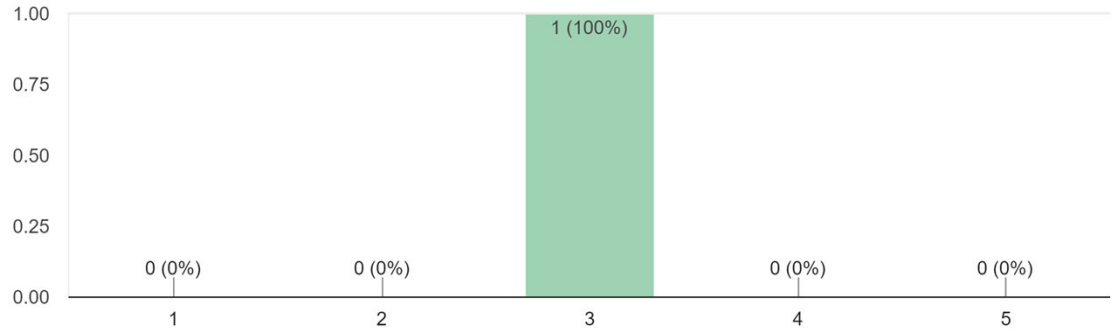
Rate the effectiveness & ease of use of the PM program: 1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

1 response



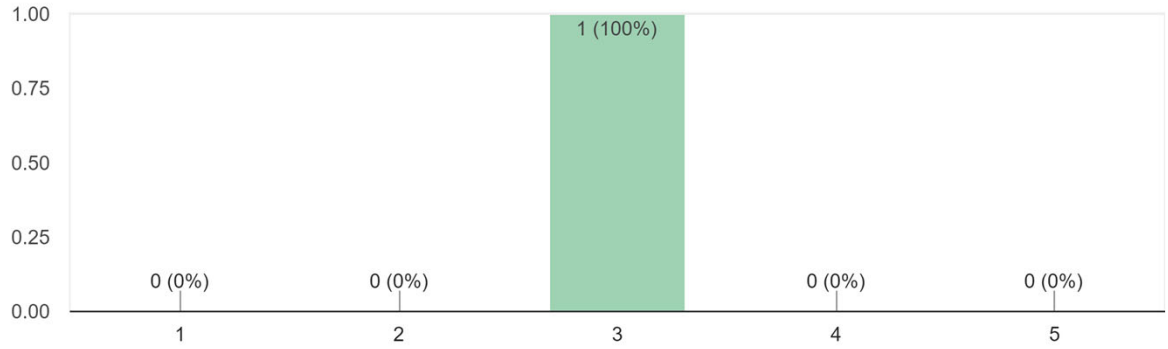
Rate the maintenance parts supply inventory: 1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

1 response



Rate the filter/belts supply inventory: 1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent

1 response



Note: Typically, there will be 9 more graphs with comments.

SMA Set … Includes time estimates and suggested sequencing … simple wording for the general maintenance person

4. Air Handling Unit

___ De-energize, lock out, and tag electrical circuit.
___ Clean unit and make visual examination of all parts.
___ Replace filters
___ Check belts for wear or cracks replace if needed and record belt(s) used on the PM work order.
___ Check for proper belt tension and alignment if applicable.
___ Check pulley mounting on shaft and wear on grooves.
___ Check for any play in bearings by moving fan shaft.
___ Check fan vanes and actuator for any loose play.
___ Clean drain pan and note excessive corrosion.
___ Check and clean heating and cooling coils as needed. Use fin comb if needed to straighten fins.
___ Grease fan bearings and check grease line for any cracks or splits.
___ Check fan motor by manually rotating pulley and listen for any unusual noise.
___ Clean motor, fan, damper blades and fan chamber.
___ Check condition of fan motor (paint, corrosion)
___ Check condition of ductwork, fan insulation and canvas.
___ Clean-up work area and remove trash.
___ Remove tags and restore to service.
___ Run unit and check for unusual noise or vibration.
___ Note the needed repairs by submitting SchoolDude work requests to correct any problems.
___ Record the time taken to service and the material used on the PM work order.

10 Condensing Unit (Air Cooled)

___ De-energize, lock out, and tag electrical circuit.
___ Clean the condenser coil with pressure sprayer using approved coil cleaner or compressed air… ensure that the coil is clear and clean.
___ Check for damage to the coil and comb if needed.
___ Check for any damage to condenser line.
___ Check fan blade for damage and easy turning.
___ Check motor mount for damage, check motor shaft for any endplay sideways and upward.
___ Check compressor contactors for burnt contacts
___ Lubricate fan motors and fan bearings if applicable.
___ Clean-up work area and remove trash.
___ Remove tags and restore to service.
___ Run unit and check for unusual noise or vibration.
___ Check refrigerant level and moisture content if a sight glass is available. If low level or moisture is indicated, contact the service personnel.
___ Note the needed repairs by submitting SchoolDude work requests to correct any problems.
___ Record the time taken to service and the material used on the PM work order.

Note: Repairs should be made only by properly trained service personnel

18 Exhaust Fan
___ De-energize, lock out, and tag electrical circuit.
___ Open safety cage to units and check belts for wear or cracks if applicable and replace any damaged belts.
___ Check pulley alignment and pulley setscrews.
___ Check for any play in bearings or wear on shaft.
___ Check motor mounting for cracks or bolts looseness.
___ Check fan for dirt buildup and clean as needed.
___ Spray an approved cleaner on dampers and check for binding.
___ Grease fan bearings as needed and wipe off any excess or old grease.
___ Clean-up work area and remove trash.
___ Remove tags and restore to service.
___ Run fan and check for unusual noise or vibration.
___ Note the needed repairs by submitting SchoolDude work requests to correct any problems.
___ Record the time taken to service and the material used on the PM work order.

RS Means Cost-works set …… Includes time estimates and sequencing … closest thing to an industry standard

D3045 110 1900 A Air handling unit, 3 tons through 24 tons Annual Time .800

1 Check with operating or area personnel for deficiencies.
2 Check controls and unit for proper operation.
3 Check for unusual noise or vibration.
4 Check tension, condition and alignment of belts, adjust as necessary.
5 Clean coils, evaporator drain pan, blower, motor and drain piping, as required.
6 Lubricate shaft and motor bearings.
7 Replace air filters.
8 Inspect exterior piping and valves for leaks; tighten connections as required.
9 Clean area around equipment.
10 Fill out maintenance checklist and report deficiencies.

D3045 110 1900 Q **Air handling unit, 3 tons through 24 tons Quarterly Time .420**

1 Check with operating or area personnel for deficiencies.
2 Check controls and unit for proper operation.
3 Check for unusual noise or vibration.
4 Check tension, condition, and alignment of belts, adjust as necessary.
6 Lubricate shaft and motor bearings.
7 Replace air filters.
8 Inspect exterior piping and valves for leaks; tighten connections as required.
9 Clean area around equipment.
10 Fill out maintenance checklist and report deficiencies.

JCH816 set was developed by the Department of Labor for Job Corps Centers … No time estimates; has sequencing

Air Handler Units

Frequency: Annual

Special Instructions:

1. Review manufacturer's instructions.
2. Schedule shut-down with operating personnel, as needed.
3. Open lock and tag electrical circuits.
4. Schedule preventive maintenance on motor.

Check Points:

1. Check fan blades for dust build-up and clean if necessary.
2. Check fan blades and moving parts for excessive wear.
3. Check fan RPM to design specifications.
4. Check bearing collar set screws on fan shaft to make sure they are tight.
5. Check dampers for dirt accumulations.
6. Check damper motors and linkage for proper operation. Adjust linkage on vanes if out of alignment.
7. Lubricate mechanical connections of dampers – sparingly.
8. Clean coils by brushing, blowing, vacuuming, or pressure washing.
9. Check coils for leaking, tightness of fittings.
10. Use fin comb to straighten coil fins.
11. Flush and clean condensate pans and drains.
12. Before heating seasons (in climates with below freezing weather): Drain chilled water-cooling coils; blow down to remove moisture; refill with anti-freeze and water solution; drain. (Use solution in other coils.)
13. Check freeze-stat for proper operation.
14. Vacuum interior of unit.
15. Lubricate fan shaft bearings while unit is running. Add grease slowly until slight bleeding is noted from the seals. Do not lubricate.
16. Adjust belt tension.

Tools & Materials:

Standard hand tools – Mechanic
Tachometer
Grease gun and oiler
Pressure washer
Vacuum
Fin comb
Cleaning tools and materials
Belt gauge

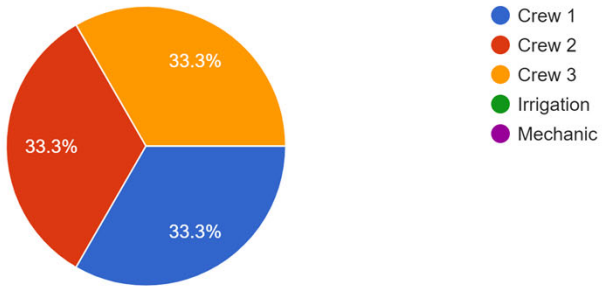
Preliminary Equipment List from Interviews

Item Number	Description	Area Number	Manufacturer	Model Number	Serial Number	Notes	Location	Alternate Type
	Exhaust Fan	Roof				greenheck	ES1	Exhaust Fan
	Exhaust Fan	Roof				greenheck	ES1	Exhaust Fan
4	Exhaust Fan	Roof				greenheck	ES1	Exhaust Fan
6	Exit Light	Boiler Room, Mechanical Room, Corridors/Entrances					ES1	Exit Light
6	Exit Light	Boiler Room, Mechanical Room, Corridors/Entrances					ES1	Exit Light
6	Exit Light	Boiler Room, Mechanical Room, Corridors/Entrances					ES1	Exit Light
6	Exit Light	Boiler Room, Mechanical Room, Corridors/Entrances					ES1	Exit Light
6	Exit Light	Boiler Room, Mechanical Room, Corridors/Entrances					ES1	Exit Light
6	Exit Light	Boiler Room, Mechanical Room, Corridors/Entrances					ES1	Exit Light
4	Fan Coil Unit	Mechanical Room, Fan Room				Carrier	ES1	Fan Coil Unit
4	Fan Coil Unit	Mechanical Room, Fan Room				Carrier	ES1	Fan Coil Unit
4	Fan Coil Unit	Mechanical Room, Fan Room				Carrier	ES1	Fan Coil Unit
4	Fan Coil Unit	Mechanical Room, Fan Room				Carrier	ES1	Fan Coil Unit
2	Food Warmer	Main Kitchen				Hatco	ES1	Food Warmer
2	Freezer, Commercial	Main Kitchen				Mo Tak	ES1	Freezer, Commercial
4	Furnace, Natural Gas	Mechanical Room				Carrier	ES1	Furnace, Natural Gas
4	Furnace, Natural Gas	Mechanical Room				Carrier	ES1	Furnace, Natural Gas
4	Furnace, Natural Gas	Mechanical Room				Carrier	ES1	Furnace, Natural Gas
4	Furnace, Natural Gas	Mechanical Room				Carrier	ES1	Furnace, Natural Gas
1	Grease Trap	Kitchen/Cafeteria				watts	ES1	Grease Trap
2	Heat Pump, Package	Roof				Ruud	ES1	Heat Pump, Package
2	Heat Pump, Package	Roof				Ruud	ES1	Heat Pump, Package
2	Heat Pump, Water Source	Mechanical Room				Johnson Controls	ES1	Heat Pump, Water Source
2	Heat Pump, Water Source	Mechanical Room				Johnson Controls	ES1	Heat Pump, Water Source
2	Ice Machine	Main Kitchen				Manitowic	ES1	Ice Machine
2	Kettle	Main Kitchen				Oxo	ES1	Kettle
2	Make-up Air Unit	Boiler Room				broan	ES1	Make-up Air Unit
2	Make-up Air Unit	Boiler Room				broan	ES1	Make-up Air Unit
2	Mixer	Main Kitchen				Kitchenaid	ES1	Mixer
2	Oven, Commercial	Main Kitchen				Blodgett	ES1	Oven, Commercial
1	Oven, Convection	Main Kitchen				Samsung	ES1	Oven, Convection
2	Panel Board/Circuit Breake	Mechanical Room, Outside the building				Square D	ES1	Panel Board/Circuit Breaker
2	Panel Board/Circuit Breake	Mechanical Room, Outside the building				Square D	ES1	Panel Board/Circuit Breaker
2	Pizza Oven	Main Kitchen				Gozney	ES1	Pizza Oven
4	Pump, Circulating	Boiler Room, Mechanical Room				taco	ES1	Pump, Circulating
4	Pump, Circulating	Boiler Room, Mechanical Room				taco	ES1	Pump, Circulating
4	Pump, Circulating	Boiler Room, Mechanical Room				taco	ES1	Pump, Circulating
4	Pump, Circulating	Boiler Room, Mechanical Room				taco	ES1	Pump, Circulating
2	Pump, Plumbing	Mechanical Room				Tramco	ES1	Pump, Plumbing
2	Pump, Plumbing	Mechanical Room				Tramco	ES1	Pump, Plumbing
2	Pump, Sump	Mechanical Room				Zoeller	ES1	Pump, Sump
2	Pump, Sump	Mechanical Room				Zoeller	ES1	Pump, Sump
1	Range, Commercial	Main Kitchen				Southbend	ES1	Range, Commercial
2	Refrigerator, Commercial	Main Kitchen				Frigidaire	ES1	Refrigerator, Commercial
4	Restroom Batteries	Restroom				elkay	ES1	Restroom Batteries
4	Restroom Batteries	Restroom				elkay	ES1	Restroom Batteries
4	Restroom Batteries	Restroom				elkay	ES1	Restroom Batteries

Grounds Worker

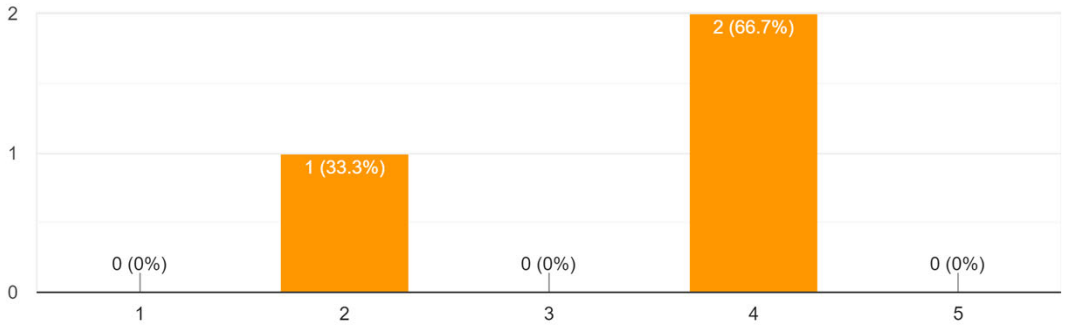
Please list your crew assignment:

3 responses



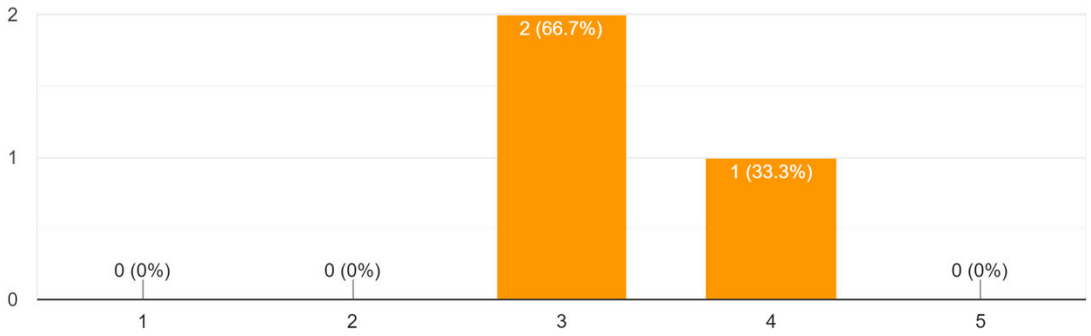
Rate the quality & frequency of mowing, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

3 responses



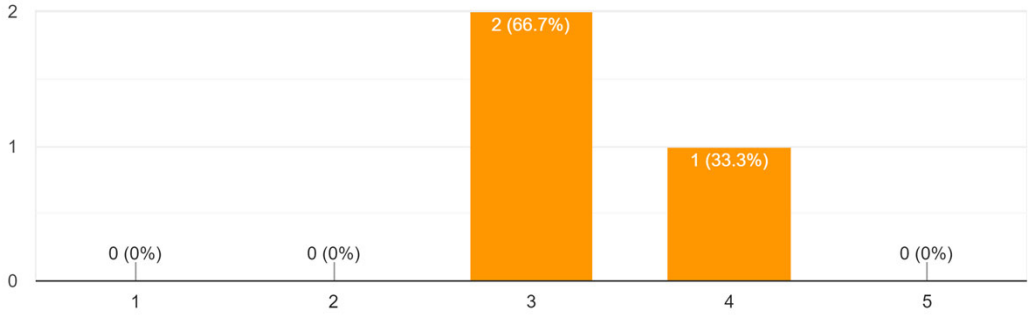
Rate the quality & frequency of detailed grooming work, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

3 responses



Rate the condition & appropriateness of mowing equipment, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

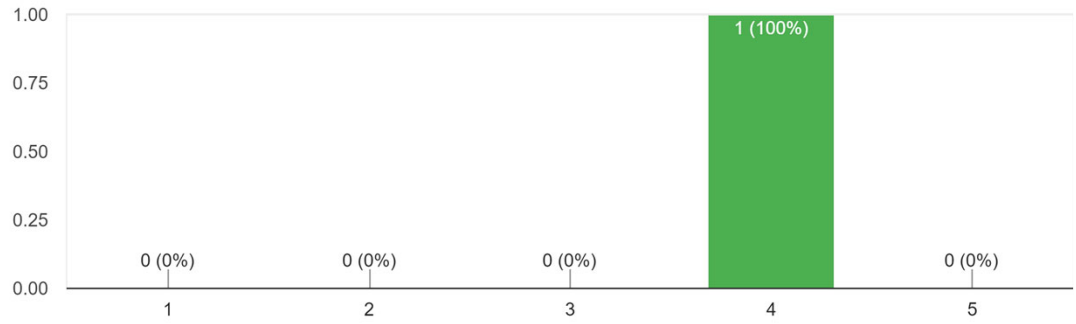
3 responses



Grounds Crew Leader

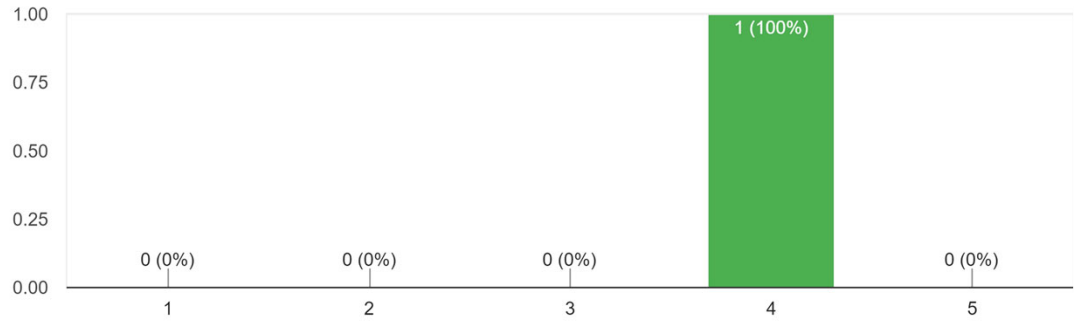
Rate the quality & frequency of mowing, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



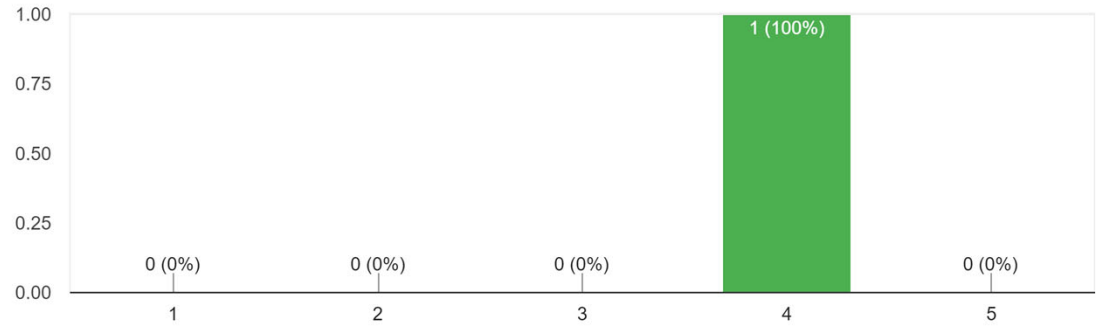
Rate the quality & frequency of detailed grooming work, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



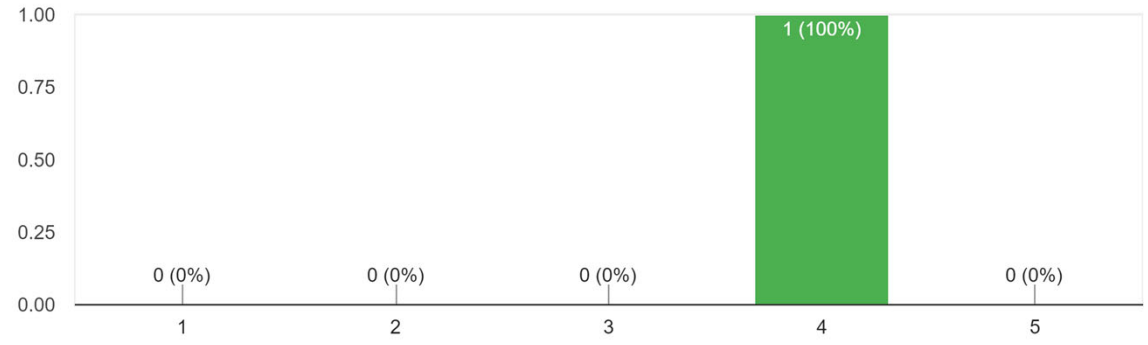
Rate the condition & appropriateness of mowing equipment, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



Rate the condition & appropriateness of hand tools ... edgers, weed whips, etc., (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



Note: Typically, there will be 8 more graphs with comments.

Grounds Supervisor(s) Time Analysis:

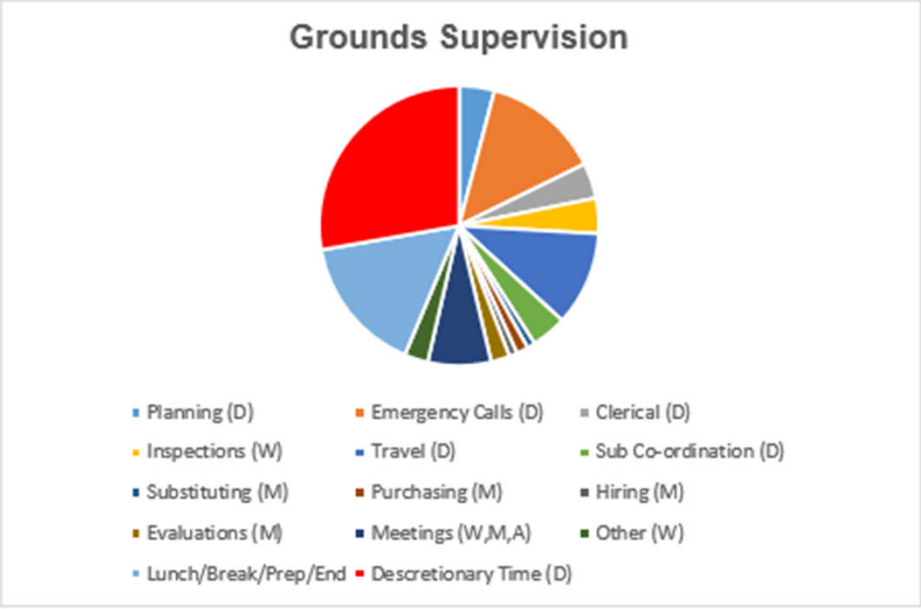
Supervisors often are over-programmed with busy work leaving little time for program improvement. This interview is designed to help understand what supervisors spend time doing.

Grounds Supervisor(s) Time Analysis

911 Average 20 # Supv. 1

Routine Processes:	Min./Day	
1 Planning (D)	18	4.1%
3 Emergency Calls (D)	60	13.6%
5 Clerical (D)	18	4.1%
7 Inspections (W)	18	4.1%
9 Travel (D)	48	10.9%
11 Sub Co-ordination (D	18	4.1%
12 Substituting (M)	4	0.9%
14 Purchasing (M)	6	1.4%
16 Hiring (M)	4	0.9%
17 Evaluations (M)	10	2.2%
19 Meetings (W,M,A)	32	7.3%
20 Other (W)	12	2.7%
21 Lunch/Break/Prep/Er	70	15.9%
22 Descretionary Time (	122	27.7%

Other Hrs 5.30 Other Min. 318

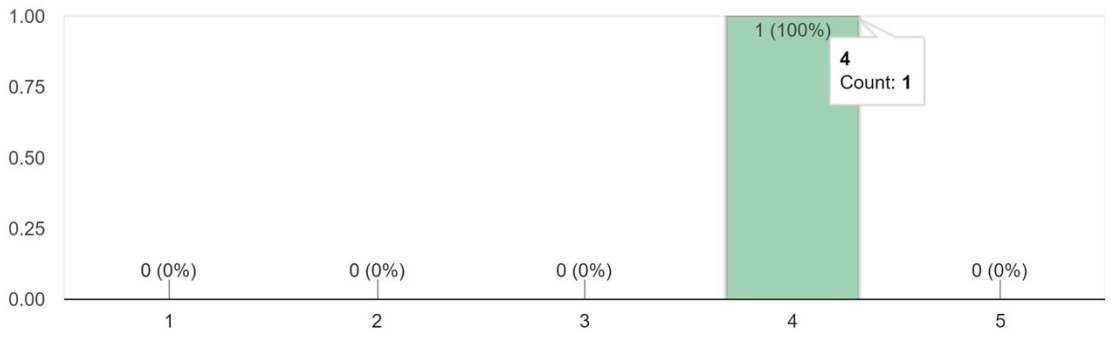


Supervisory 39.0% Reactive/Overhead 61.0%

Grounds Supervisor

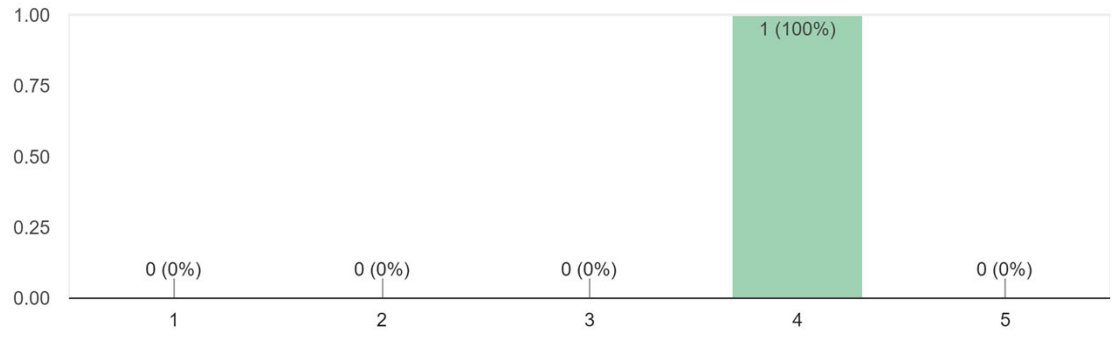
Rate the quality & frequency of mowing, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



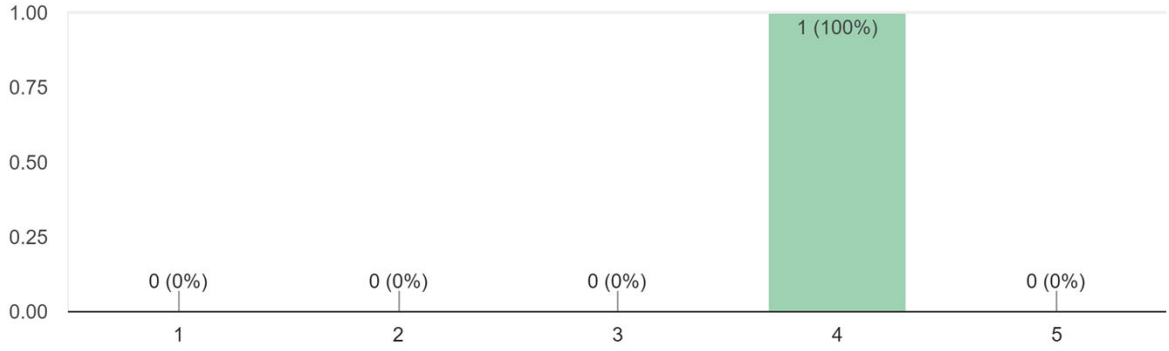
Rate the quality & frequency of detailed grooming work, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



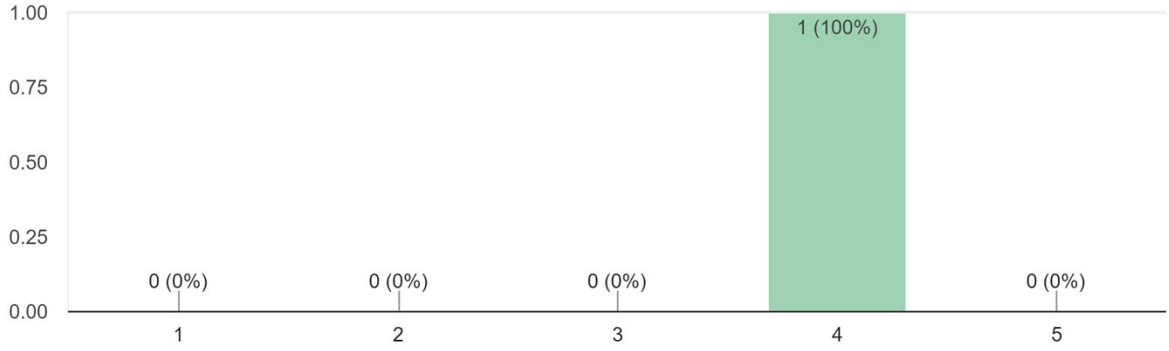
Rate the condition & appropriateness of mowing equipment, (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



Rate the condition & appropriateness of hand tools ... edgers, weed whips, etc., (1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent):

1 response



Note: Typically, there will be 7 more graphs with comments.

Grounds Crew Organization Review Example

Grounds Crew Reviews:

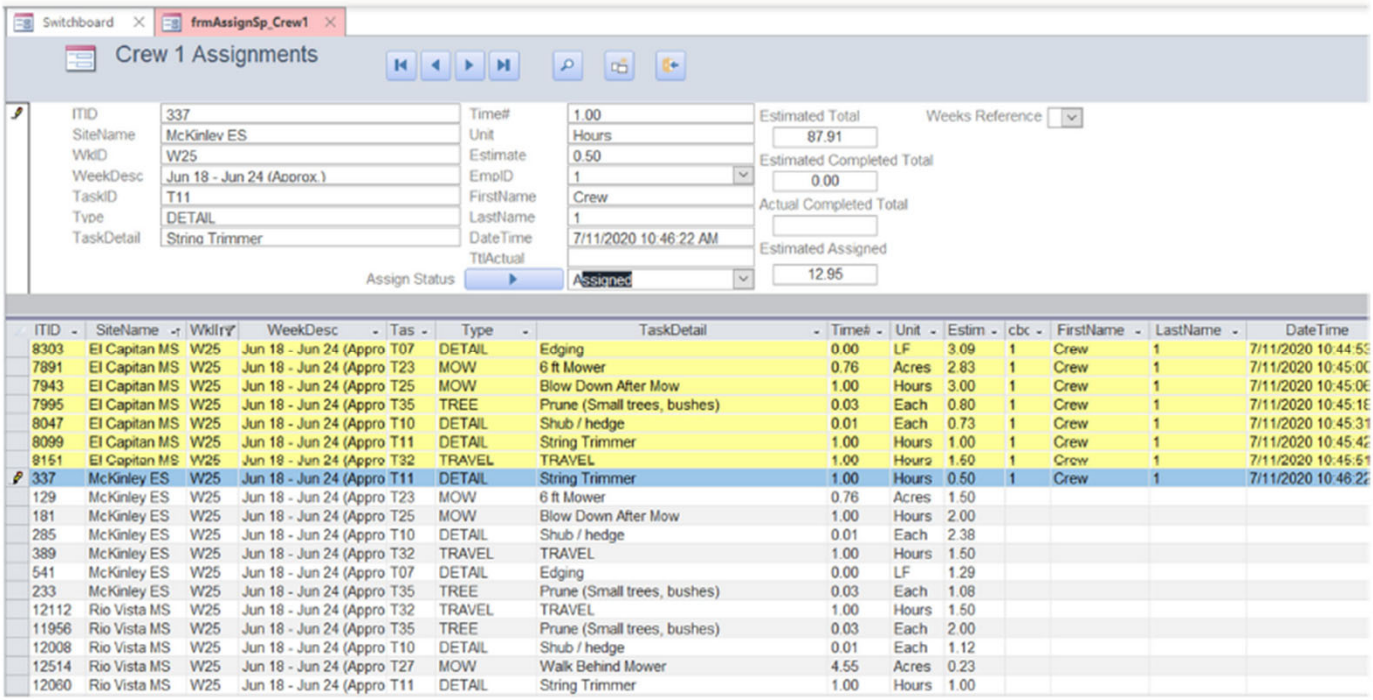
Considering the data in this review we support the proposed re-organization of the grounds department crews. The move to smaller three employee crews is a positive step to improve grounds services. Consider these factors:

1. The three crews will have the ability to stay on sites much longer. Some days with adjacent schools or a large site only one destination will be serviced. This length of stay should reduce inefficiency from student interruptions, the smaller crew will shift the type of work to keep productive then still have time to get back to the interrupted mowing. With the larger crews the time pressure is always on to service three or four sites in a day, quickly moving from site to site. The student interruptions now often hurt the level of service provided to the final site of the day.
2. There is not a designated team leader within the grounds department operations crews, this means small adjustments are made as a self-directed crew. Adjustments will be less complex with three people verses five. New employees should incorporate in more easily.
3. Three crews covering less sites will naturally create clearer ownership/accountability for the sites. All three employees own all the mowing and detail work of their sites.
4. I see an advantage for improved supervision. Support and guidance provided to the crews as they spend more time on each site should be less complex with fewer people in the crew and less movement.
5. Our statistics show the need for help in the high school sites, this configuration can free up more help to the high schools.

We realize there typically is some cost associated with re-organization, but the vehicle updates and improved mowing equipment seem reasonable given the advantages.

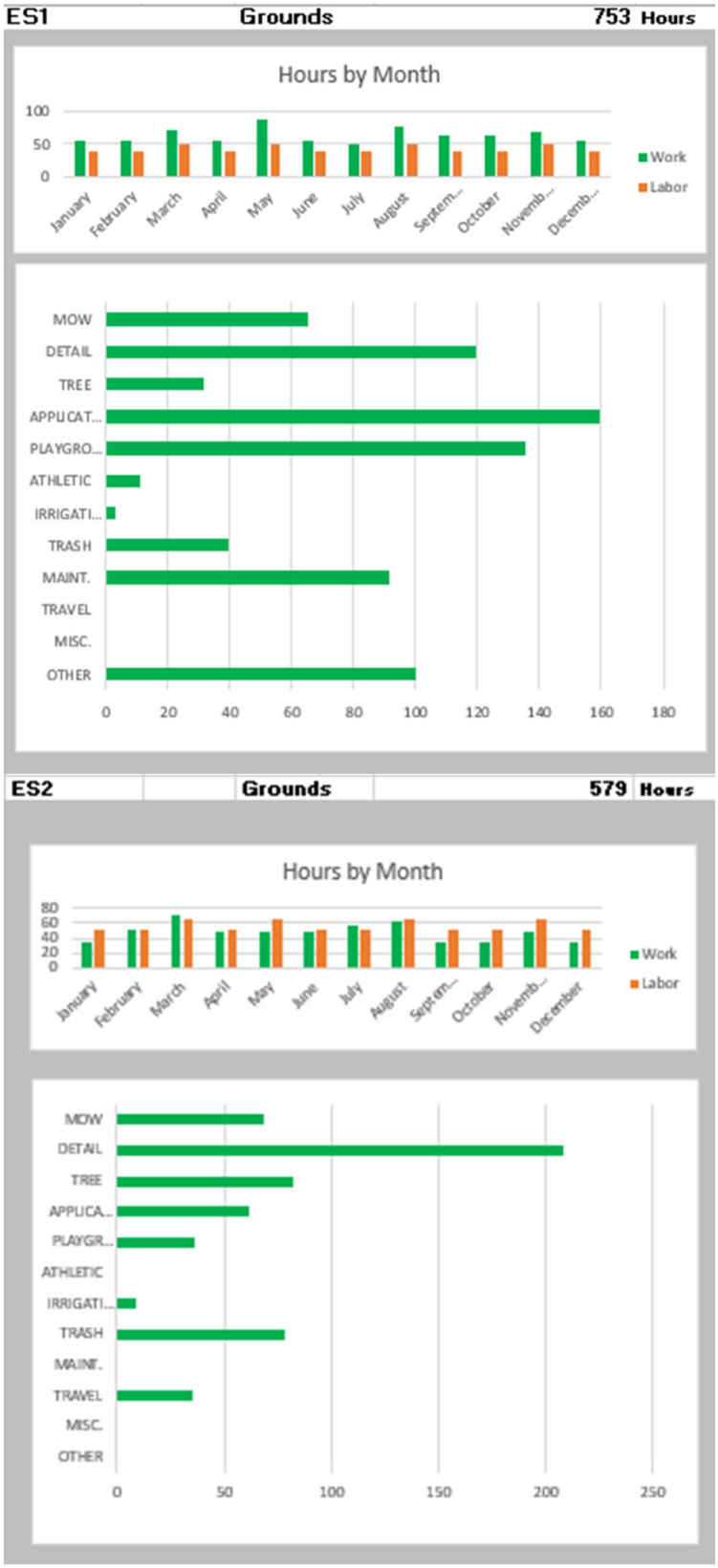
Database tracking of Crew Assignments Example:

The database system is in place to provide weekly tickets for each site. The database verification of weekly site work by category of work should build a history of the actual work being done and form the bases for adjusting labor and workload requirements. Over 15,000 individual tasks are posted in the database calendar for your district. Note the El Capitan MS example for Week 25.

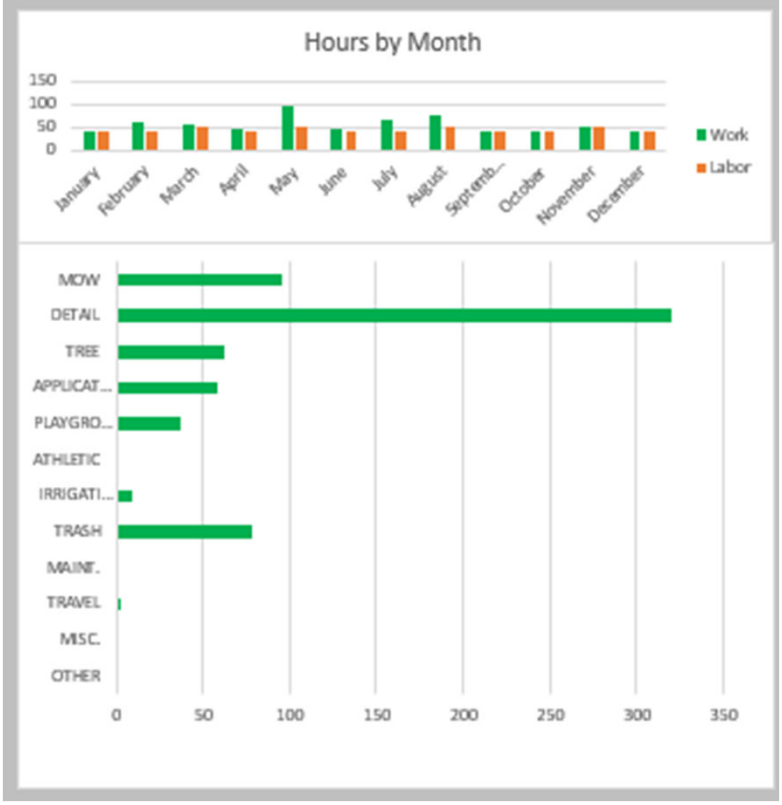


ITID	SiteName	WkID	WeekDesc	Tas	Type	TaskDetail	Time#	Unit	Estim	cbc	FirstName	LastName	DateTime
8303	El Capitan MS	W25	Jun 18 - Jun 24 (Appro	T07	DETAIL	Edging	0.00	LF	3.09	1	Crew	1	7/11/2020 10:44:53
7891	El Capitan MS	W25	Jun 18 - Jun 24 (Appro	T23	MOW	6 ft Mower	0.76	Acres	2.83	1	Crew	1	7/11/2020 10:45:00
7943	El Capitan MS	W25	Jun 18 - Jun 24 (Appro	T25	MOW	Blow Down After Mow	1.00	Hours	3.00	1	Crew	1	7/11/2020 10:45:06
7995	El Capitan MS	W25	Jun 18 - Jun 24 (Appro	T35	TREE	Prune (Small trees, bushes)	0.03	Each	0.80	1	Crew	1	7/11/2020 10:45:18
8047	El Capitan MS	W25	Jun 18 - Jun 24 (Appro	T10	DETAIL	Shub / hedge	0.01	Each	0.73	1	Crew	1	7/11/2020 10:45:31
8099	El Capitan MS	W25	Jun 18 - Jun 24 (Appro	T11	DETAIL	String Trimmer	1.00	Hours	1.00	1	Crew	1	7/11/2020 10:45:42
8151	El Capitan MS	W25	Jun 18 - Jun 24 (Appro	T32	TRAVEL	TRAVEL	1.00	Hours	1.50	1	Crew	1	7/11/2020 10:45:51
337	McKinley ES	W25	Jun 18 - Jun 24 (Appro	T11	DETAIL	String Trimmer	1.00	Hours	0.50	1	Crew	1	7/11/2020 10:46:22
129	McKinley ES	W25	Jun 18 - Jun 24 (Appro	T23	MOW	6 ft Mower	0.76	Acres	1.50				
181	McKinley ES	W25	Jun 18 - Jun 24 (Appro	T25	MOW	Blow Down After Mow	1.00	Hours	2.00				
285	McKinley ES	W25	Jun 18 - Jun 24 (Appro	T10	DETAIL	Shub / hedge	0.01	Each	2.38				
389	McKinley ES	W25	Jun 18 - Jun 24 (Appro	T32	TRAVEL	TRAVEL	1.00	Hours	1.50				
541	McKinley ES	W25	Jun 18 - Jun 24 (Appro	T07	DETAIL	Edging	0.00	LF	1.29				
233	McKinley ES	W25	Jun 18 - Jun 24 (Appro	T35	TREE	Prune (Small trees, bushes)	0.03	Each	1.08				
12112	Rio Vista MS	W25	Jun 18 - Jun 24 (Appro	T32	TRAVEL	TRAVEL	1.00	Hours	1.50				
11956	Rio Vista MS	W25	Jun 18 - Jun 24 (Appro	T35	TREE	Prune (Small trees, bushes)	0.03	Each	2.00				
12008	Rio Vista MS	W25	Jun 18 - Jun 24 (Appro	T10	DETAIL	Shub / hedge	0.01	Each	1.12				
12514	Rio Vista MS	W25	Jun 18 - Jun 24 (Appro	T27	MOW	Walk Behind Mower	4.55	Acres	0.23				
12060	Rio Vista MS	W25	Jun 18 - Jun 24 (Appro	T11	DETAIL	String Trimmer	1.00	Hours	1.00				

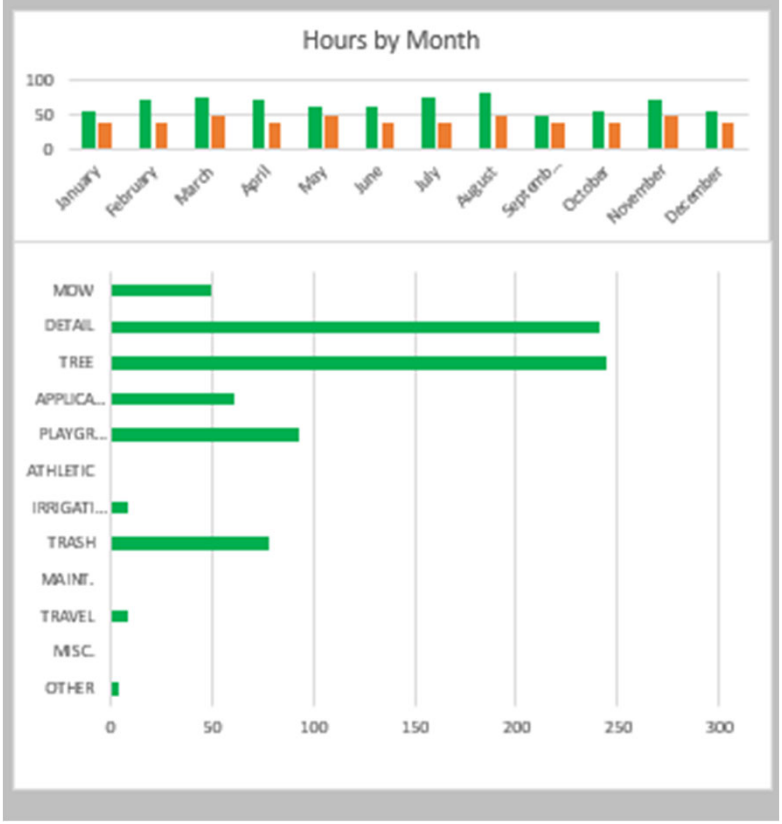
Each Campus' Hours by Month and Types of Usage

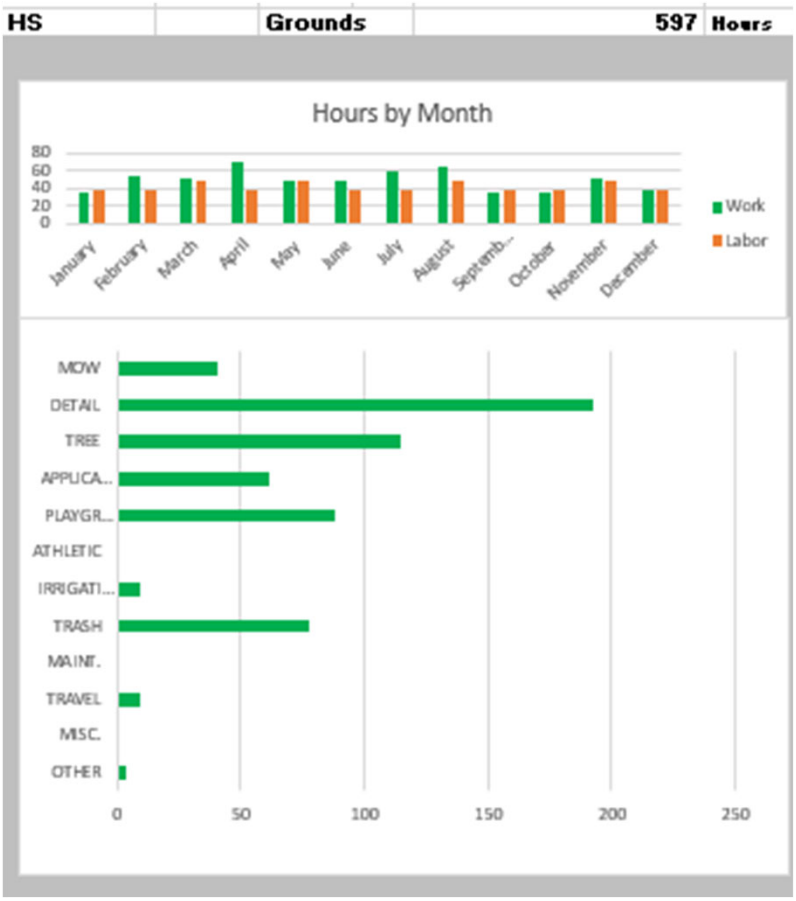


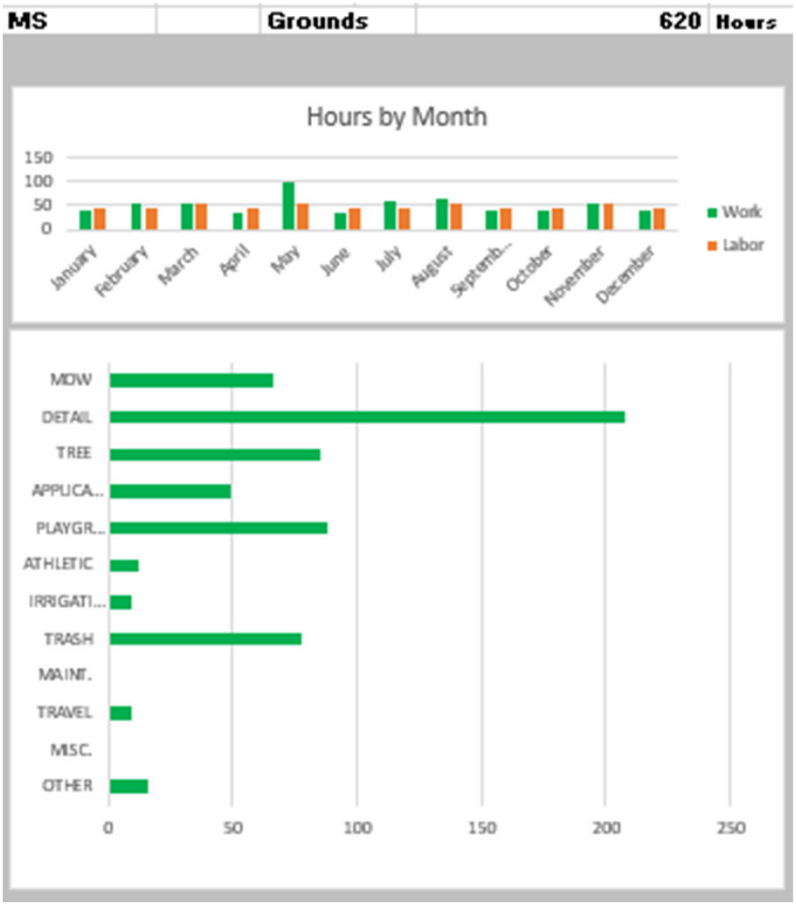
ES3	Grounds	663 Hours

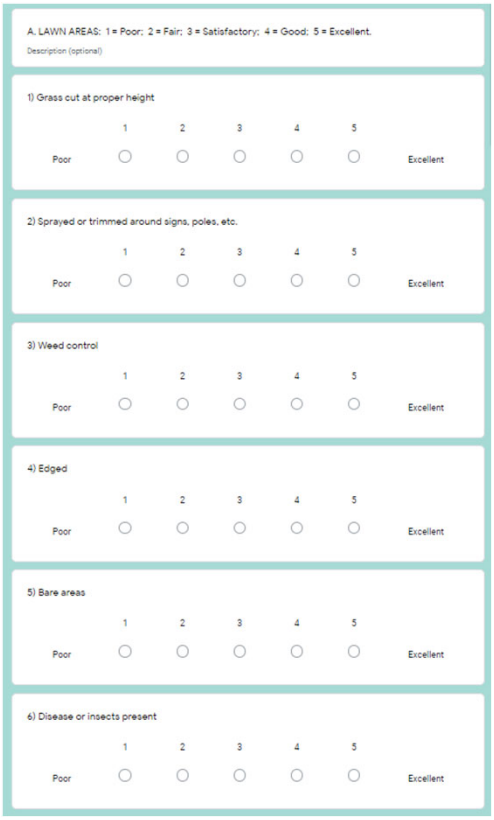


ES4	Grounds	791 Hours








A. LAWN AREAS: 1 = Poor; 2 = Fair; 3 = Satisfactory; 4 = Good; 5 = Excellent.
Description (optional)

1) Grass cut at proper height

	1	2	3	4	5	
Poor	○	○	○	○	○	Excellent

2) Sprayed or trimmed around signs, poles, etc.

	1	2	3	4	5	
Poor	○	○	○	○	○	Excellent

3) Weed control

	1	2	3	4	5	
Poor	○	○	○	○	○	Excellent

4) Edged

	1	2	3	4	5	
Poor	○	○	○	○	○	Excellent

5) Bare areas

	1	2	3	4	5	
Poor	○	○	○	○	○	Excellent

6) Disease or insects present

	1	2	3	4	5	
Poor	○	○	○	○	○	Excellent

Quality Assurance:

All districts need a regular sampling of quality … a set pattern of inspections of sites. Ideally giving each site a bi-weekly supervisory visit. These visits may very well be happening on an informal basis already, but quality is not measured systematically. Landscape inspections are a necessary next step to ensure that the department can tract the value of grounds services. The following inspection format can be posted into a smart phone with the automated result posting to a spreadsheet. This Google form can be posted in minutes using a smart phone, shown here is one page of the four-page inspection: