COOL SOLUTIONS GROUP

SMART CHURCH SOLUTIONS

eSPACE

2020 CHURCH FACILITY OPERATIONS BENCHMARKING REPORT

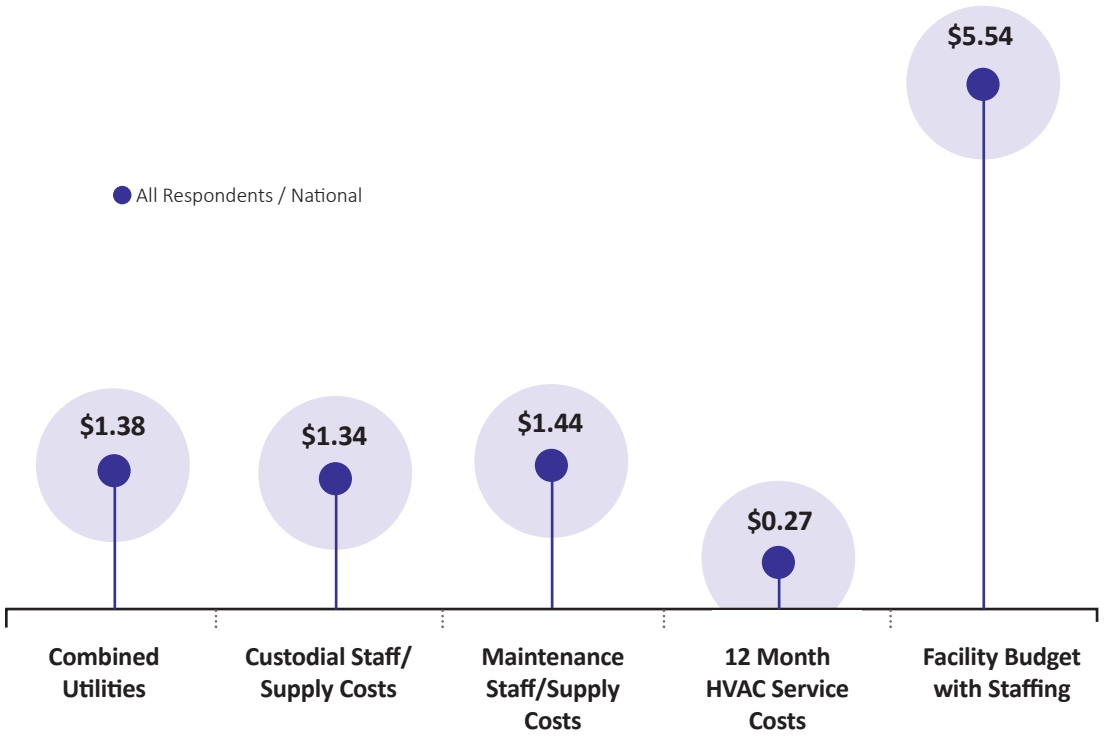
SMART CHURCH SOLUTIONS

Executive Summary - April 2020

Smart Church Solutions performed a Church Facility Operations Benchmarking Assessment to evaluate how churches of comparable size and operational tempos perform. Data collection occurred through a survey sent nationally through multiple outlets.

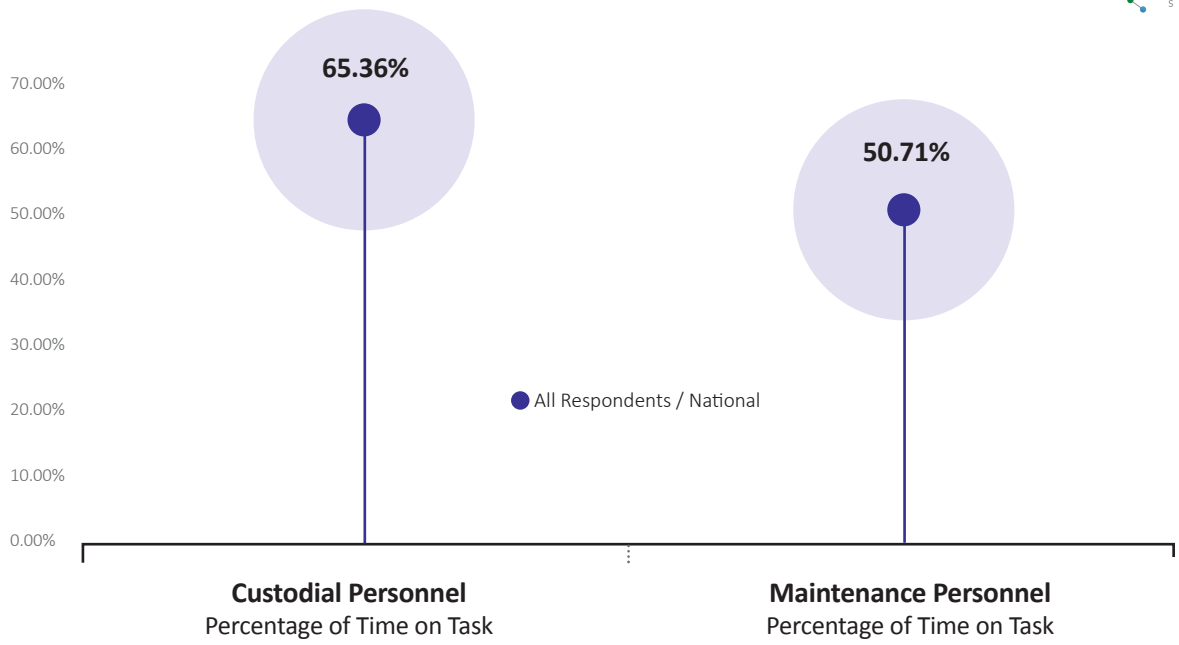
Once we qualified the data for accuracy and completeness, we analyzed the results. In the study, we worked with both the complete set (meaning All Respondents combined) as well as evaluating the square footage sub-sets when possible.

The following two charts reflect relevant expenditures **per square foot (using the median figures), and the effectiveness of respondents' staff in custodial and maintenance time on task for the All Respondent's set**:



Note: These are the respondent responses; they many not represent "best practice" expenditures.

"What is clear (and consistent across the sub-sets as well) is that there is a great deal of lost time by our custodial and maintenance teams."



Using the data, we have a reasonably clear understanding of the median expenditures per square foot and time spent on tasks for facilities ranging from less than 30,000 square feet to over 200,000 square feet. What is clear (and consistent across the sub-sets as well) is that there is a great deal of lost time by our custodial and maintenance teams.

Excluding vacation time, sick leave, and holidays, on average custodial teams focused on cleaning for 1,359.5 hours a year, leaving 720.5 hours spent on tasks outside of cleaning (adding in time away will reduce these hours). That equates to 13 hours a week (of an FTE) of lost cleaning potential. For maintenance, the numbers are more severe. On-task 1,054.8 hours annually, 1,025.2 hours worked annually on non-maintenance tasks. That is almost 20 hours a week of lost maintenance potential. Considering this lost time is essential when creating budgets and determining staffing schedules. The full-time equivalents you are planning on are (generally) not able to perform at a full-time level.

Observations

This study focuses on the costs per square foot when possible. The reasoning behind this is straight forward. The monies required to thoroughly clean, maintain, and support your facility stem from a fixed figure (the square footage). A 15-ton HVAC unit will cost the same amount of money to operate and will need the same level of maintenance whether your space is at capacity or running at 20% capacity. Often the facility budget is one of the first areas considered for a percentage reduction when the budget requires slimming down. Unless there is a corresponding reduction in square footage utilized, you are not adequately budgeting for the maintenance of your facility.

We intend this benchmark study to help guide and provide a realistic starting place for evaluating your facility expenditures and planning. There will always exist a variation between facilities and ministerial programs that limit the ability to provide a rigid standard. What is encouraging is that there are observable echoes in the results of this benchmarking project (focused exclusively on churches) with the recently released Operation and Maintenance Benchmarks report produced by the International Facility Management Association FM Research & Benchmarking Institute. The qualified responses we received indicate a better understanding of the need to incorporate facility industry best practices in the maintenance of the facilities entrusted to us.

The following pages will provide additional information on the different areas of evaluation in the study. Generally, we will show the "All Respondents" sub-set of data. In some cases, where it is relevant, the additional data sub-sets will be provided.

"A 15-ton HVAC unit will cost the same amount of money to operate and will need the same level of maintenance whether your space is at capacity or running at 20% capacity."

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Process

The process began with the assumption that collecting data from as many churches as possible would ensure the best opportunity of creating a realistic benchmark for all churches as well as the ability to consider smaller subsets of church size for more in-depth analysis.

To collect the data, the authors created an anonymous survey and distributed it across several channels over several months. Of the surveys received, the authors were able to qualify 70% during the review of answers. Qualification of responses included verification of the completeness of the survey, correct input type for responses requiring figures, and reasonable consistency across the 50-page survey.

Data analysis across the whole of the qualified responses created a baseline for comparison of the square footage sub-sets. Cost (or expenditure) per square foot is the preferred method of benchmarking rather than an annual budget number. The yearly budget may fluctuate, and in times of lean giving the budget may adjust by a percentage. The size of the facility, however, does not vary by "percentages" each year. The square footage will remain constant, along with the design of the function of the systems supporting your square footage. To realistically evaluate your facility expenditures, both current and from year to year, organizations should consider expenses per square foot.

To collect the data... Of the surveys received, the authors were able to qualify 70% during the review of answers.

Utility Information

The respondents provided the dollar amount of annual expenses for electricity, gas, and water (both for irrigation and non-irrigation). We performed a range of utility costs per square foot calculations utilizing a high/median/low framework based on the High/Median/Low range of the square footage ranges*.

All Respondents

Mean..... $149,945

Standard Error $16,370

Median $137,788

Per Sq Ft Cost - **High** $1.58

Per Sq Ft Cost - **Median** $1.38

Per Sq Ft Cost - **Low** $1.22

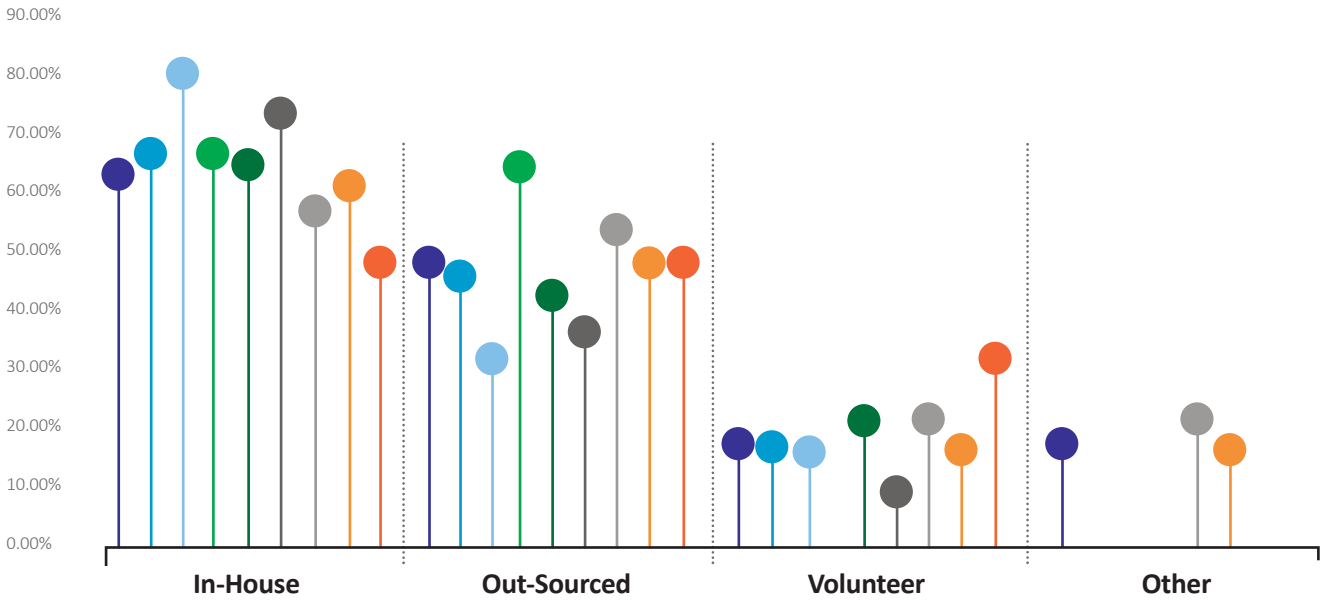
Sub-sets	High	Median	Low
Under 30,000 sq ft	1.20	.96	.80
30-60,000 sq ft	1.69	1.13	.84
60-90,000 sq ft	1.57	1.26	1.05
90-12,000 sq ft	1.41	1.21	1.06
120-150,000 sq ft	1.33	1.18	1.06
150-180,000 sq ft	1.32	1.20	1.10
180-200,000 sq ft†	1.10	1.04	.99
Over 200,000 sq ft	1.74	1.62	1.52

*The reported costs for each area produced similar bell curves in each utility; these curves skew right (in terms of statistical analysis, when a Bell Curve "skews right" it means most data is less than the mean). Some exceptionally large churches responded to the survey which created the positive skew.

†Least number of respondents for this sub-set; this may account for the lower per-square-foot costs. We recommend if your facility is in this range, utilize the "All Respondents" numbers.

Staffing Information

Custodial Services Staffing. Our survey asked respondents about who performed custodial services from a list of choices. Choices included: In-House, Out-Source, Volunteer, and Other. It is more common to see a combination of custodial staffing to facilitate the cleaning of a facility. The larger facilities tend to have a greater reliance on In-house staff.

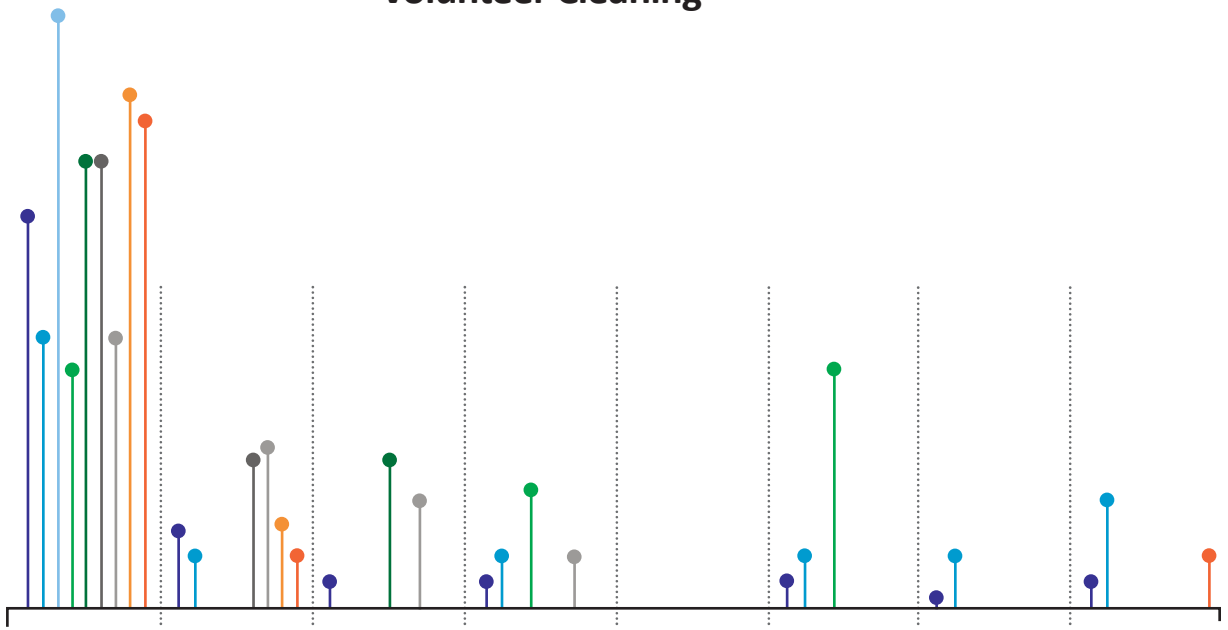


* National/	In-House	Out-Sourced	Volunteer	Other
All Respondents	65.13%	50.00%	17.76%	3.29%
> 200	69.57%	47.83%	17.39%	0.00%
180-200	83.33%	33.33%	16.67%	0.00%
150-180	69.23%	69.23%	0.00%	0.00%
120-150	66.67%	44.44%	22.22%	0.00%
90-120	76.19%	38.10%	9.52%	0.00%
60-90	59.38%	56.25%	21.88%	9.38%
30-60	63.33%	50.00%	16.67%	6.67%
< 30	50.00%	50.00%	33.33%	0.00%

**legend numbers are per 1000*

For those that utilize volunteers, 65.57% reported engaging them for no more than 5 hours a week. With the lost time our custodial teams experience in performing non-cleaning tasks, volunteers appear to be under-utilized.

Volunteer Cleaning

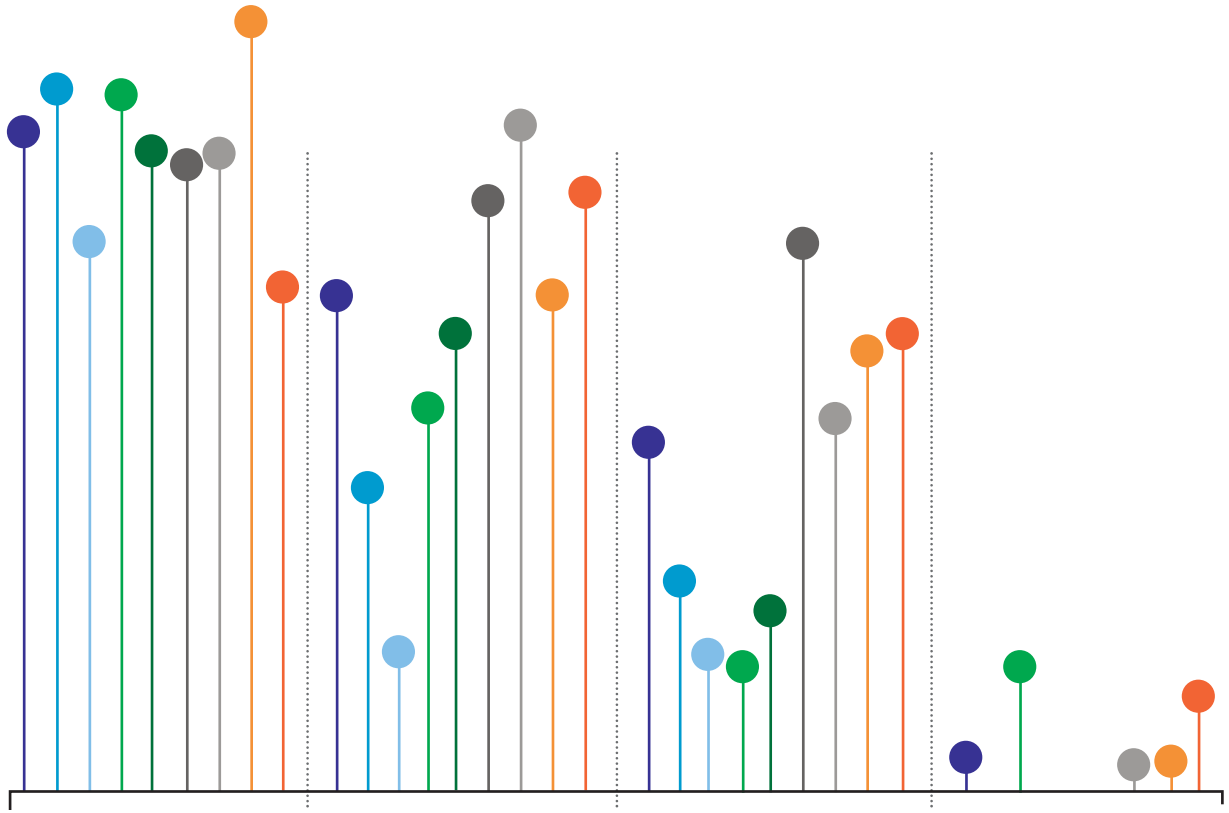


* National/	1-5†	5-10†	10-15†	15-20†	20-25†	25-30†	30-35†	35-40†
All Respondents	65.57%	13.11%	4.92%	4.92%	0.00%	4.92%	1.64%	4.92%
> 200	45.45%	9.09%	0.00%	9.09%	0.00%	9.09%	9.09%	18.18%
180-200	100.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
150-180	40.00%	0.00%	0.00%	20.00%	0.00%	40.00%	0.00%	0.00%
120-150	75.00%	0.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%
90-120	75.00%	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
60-90	45.45%	27.27%	18.18%	9.09%	0.00%	0.00%	0.00%	0.00%
30-60	85.71%	14.29%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
< 30	81.82%	9.09%	0.00%	0.00%	0.00%	0.00%	0.00%	9.09%

**legend numbers are hours per 1000* *†numbers are hours per week*

Maintenance Service Staffing. Our survey asked respondents to select who performs maintenance services from a list of choices. Choices included: In-House, Out-Source, Volunteer, and Other. In-house is the most prevalent option, and the smaller churches tend to rely on outsourced and volunteers more for maintenance. It is more common to see a combination of maintenance staffing options rather than one staffing methodology in church facilities.

Maintenance Staffing



* National/	In-House	Out-Sourced	Volunteer	Other (please specify)
All Respondents	80.00%	60.00%	42.58%	3.87%
> 200	85.19%	37.04%	25.93%	0.00%
180-200	66.67%	16.67%	16.67%	0.00%
150-180	84.62%	46.15%	15.38%	15.38%
120-150	77.78%	55.56%	22.22%	0.00%
90-120	76.19%	71.43%	66.67%	0.00%
60-90	77.42%	80.65%	45.16%	3.23%
30-60	93.33%	60.00%	53.33%	3.33%
< 30	61.11%	72.22%	55.56%	11.11%

** legend numbers are per 1000*

The churches 60,000 sq ft or less, and above 150,000 square foot tend to rely more on in-house maintenance teams.

For those that utilize volunteers for maintenance, 67.96% of respondents used volunteers for no more than 5 hours a week for maintenance projects.

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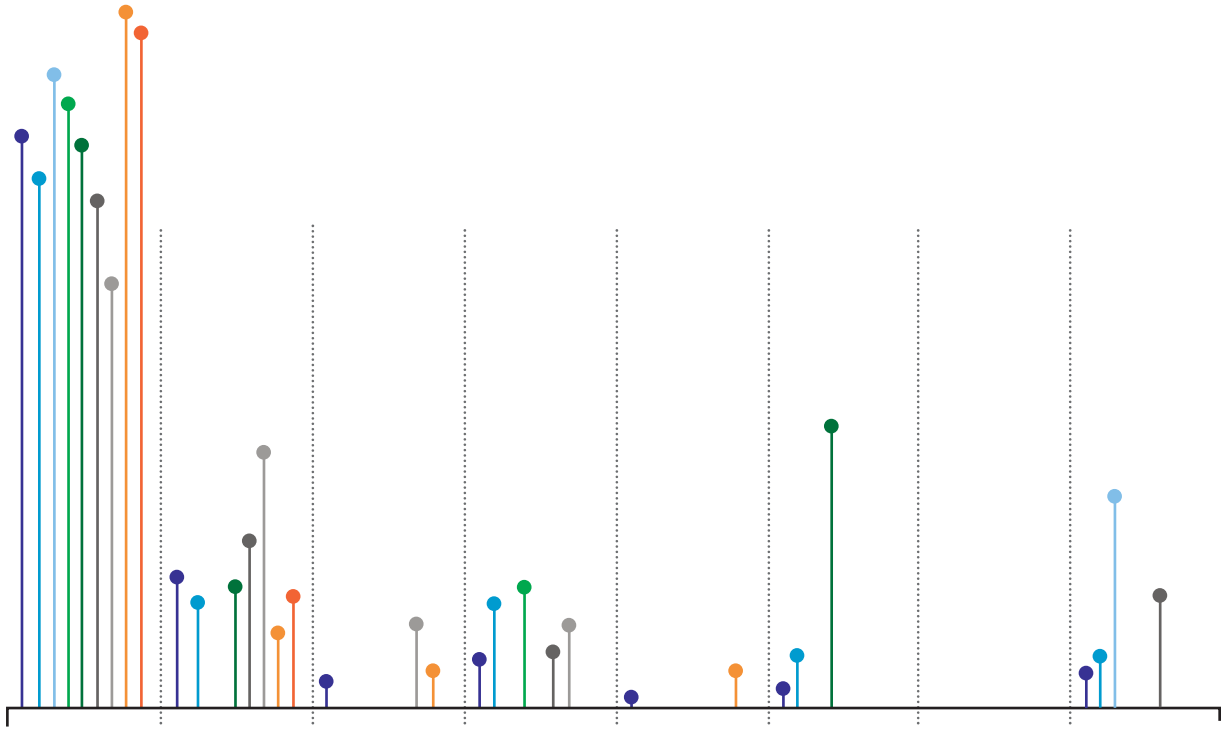
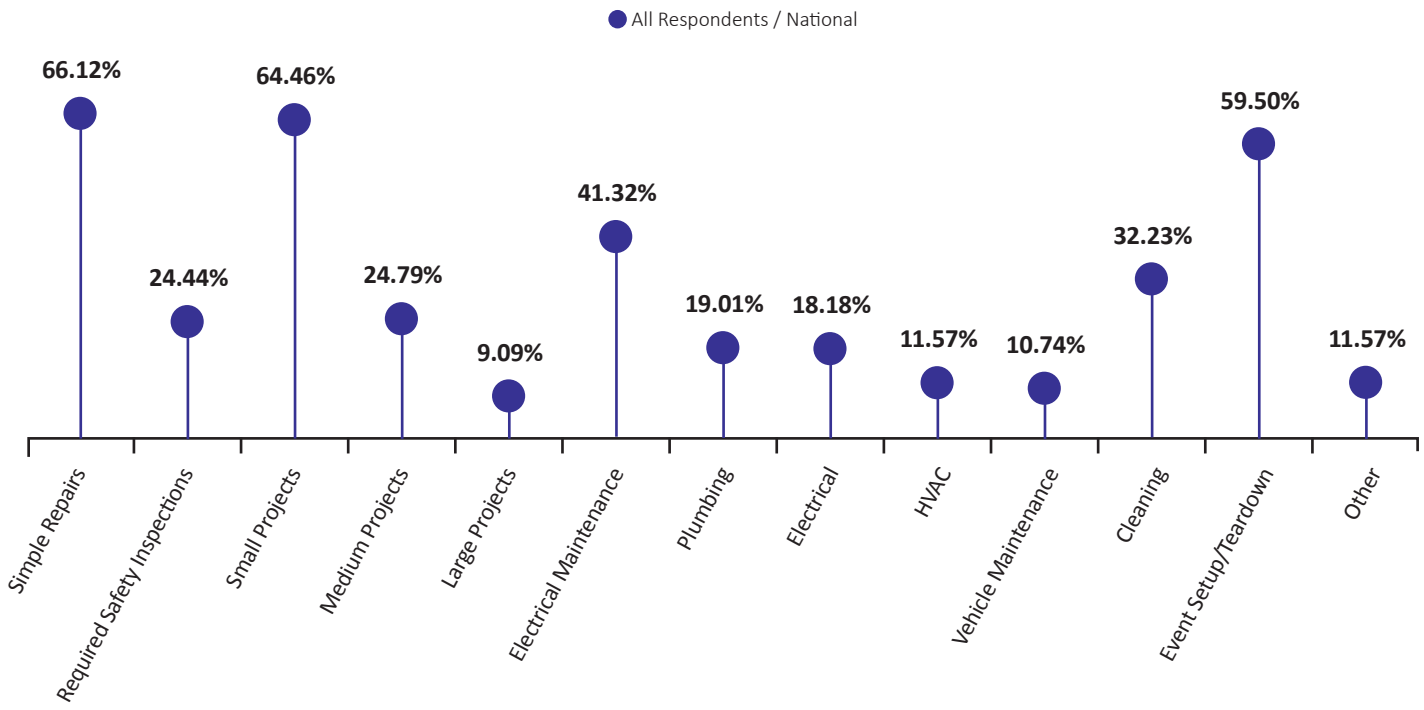
Volunteer Maintenance



* National/	1-5†	5-10†	10-15†	15-20†	20-25†	25-30†	30-35†	35-40†
All Respondents	67.96%	15.53%	2.91%	5.83%	0.97%	1.94%	0.00%	3.88%
> 200	62.50%	12.50%%	0.00%	12.50%	0.00%	6.25%	0.00%	6.25%
180-200	75.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	25.00%
150-180v	71.43%	14.29%	0.00%	14.29%	0.00%	0.00%	0.00%	0.00%
120-150	66.67%	0.00%	0.00%	0.00%	0.00%	33.33%	0.00%	0.00%
90-120	60.00%	20.00%	0.00%	6.67%	0.00%	0.00%	0.00%	13.33%
60-90	50.00%	30.00%	10.00%	10.00%	0.00%	0.00%	0.00%	0.00%
30-60	82.61%	8.70%	4.35%	0.00%	4.35%	0.00%	0.00%	0.00%
< 30	80.00%	13.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

**legend numbers are hours per 1000* †*numbers are hours per week*

Custodial and Maintenance Staff Annual Cost



Survey respondents provided the combined annual cost to the church for In-house and Out-sourced custodial and maintenance. For custodial, the national average was $120,913 annually; maintenance was $122,391. **The median per square foot cost reported for custodial staffing is $1.11 and $1.13 per square foot for maintenance staffing** — these figures derived from the All Respondent data-set.

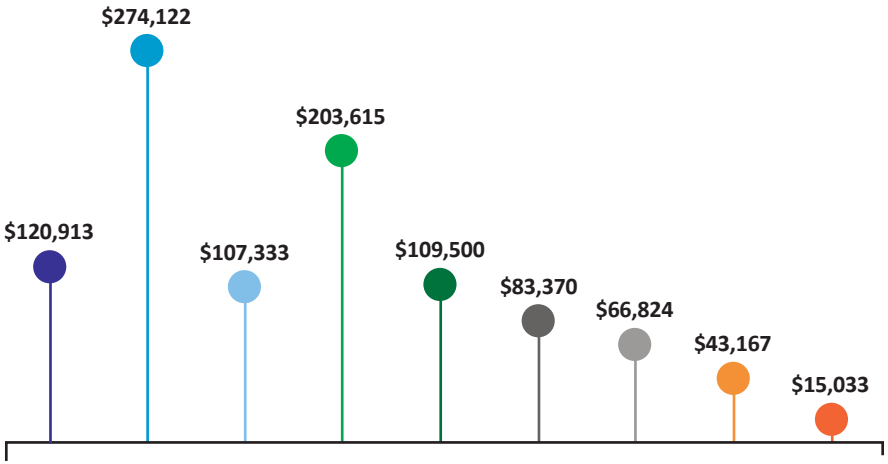
The highest percentage of volunteer maintenance work was Simple Repairs, Small Projects, and Event Setup/Teardown.

Median Per Square Foot Expenditure

Square Footage	Custodial	Maintenance
All Respondents	$1.11	$1.13
>200	$1.27	$1.12
180-200†	$0.56	$0.46
150-180	$1.23	$0.61
120-150	$0.81	$0.51
90-120	$1.41	$0.79
60-90	$0.89	$0.83
30-60	$0.96	$0.88
<30	$0.60	$1.21

†Limited number of responses received for this range. We recommend that if you fall into this range, you use the next highest range or the All Respondent figure.

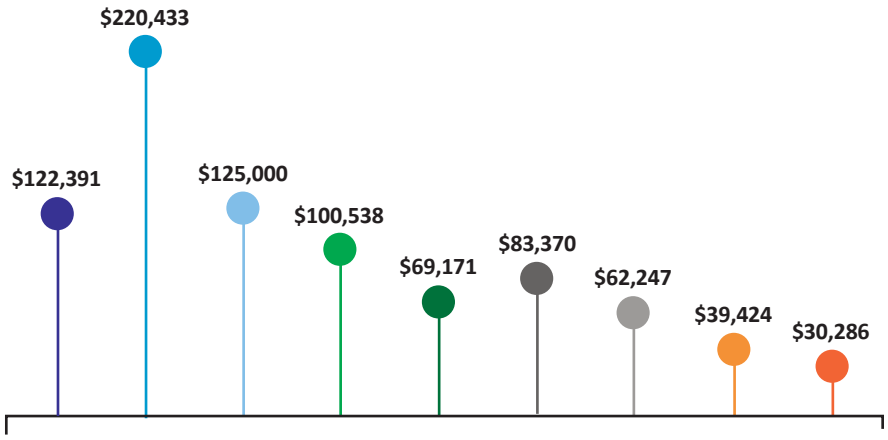
Annual Custodial Costs



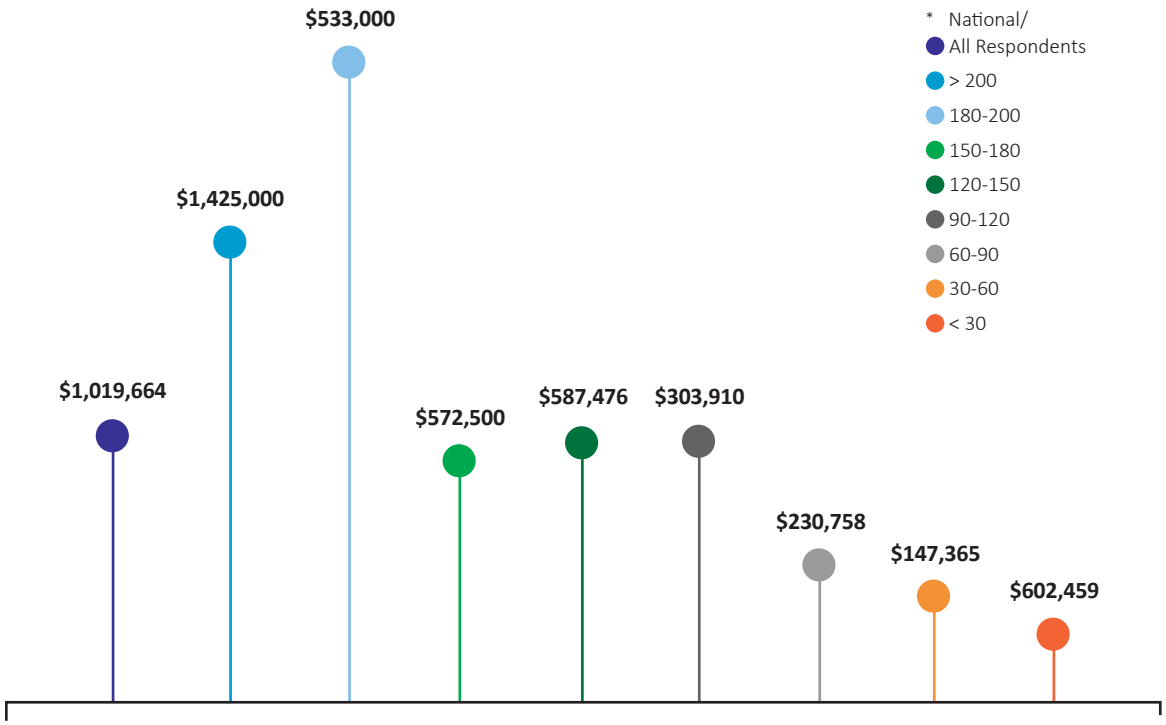
* National/
- All Respondents
- > 200
- 180-200
- 150-180
- 120-150
- 90-120
- 60-90
- 30-60
- < 30

** legend numbers are per 1000*

Annual Maintenance Costs



Total Annual Facility Budget with Staff



** legend numbers are per 1000*

Total Annual Facility Costs
per square foot

Square Footage	Cost per SF
All Respondents	$5.54
>200	$4.74
180-200†	$7.50
150-180	$3.23
120-150	$4.24
90-120	$5.60
60-90	$4.05
30-60	$5.13
<30	$5.89

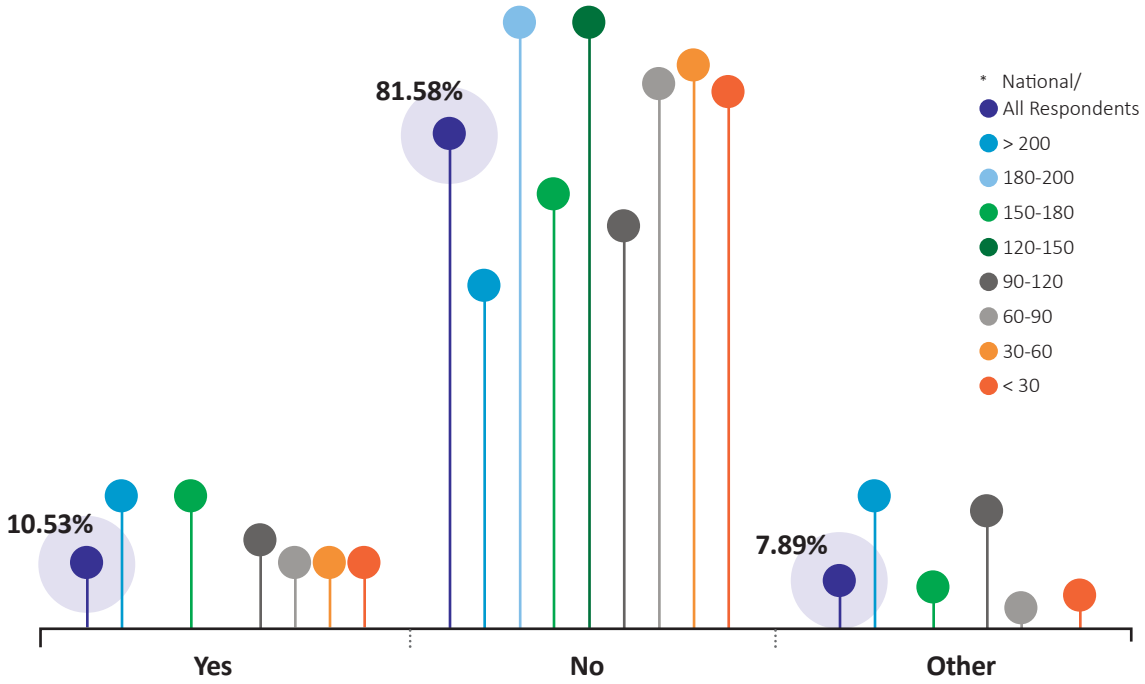
†Limited number of responses received for this range. We recommend that if you fall into this range, you use the next highest range or the All Respondent figure.

Total Annual Facility Cost to the Church Including Staff. The survey recorded a total facility budget to include staff to allow for another comparative data point.

Do you "back-charge" the cost of custodial or maintenance ministry departments?

Back-charging for Services. Some organizations "back-charge" other departments when supporting events to better account for what each program costs the facility. Some back-charging occurs internally between departments; sometimes, it is for outside organizations. Most of the respondents' report that they do not back-charge for events.

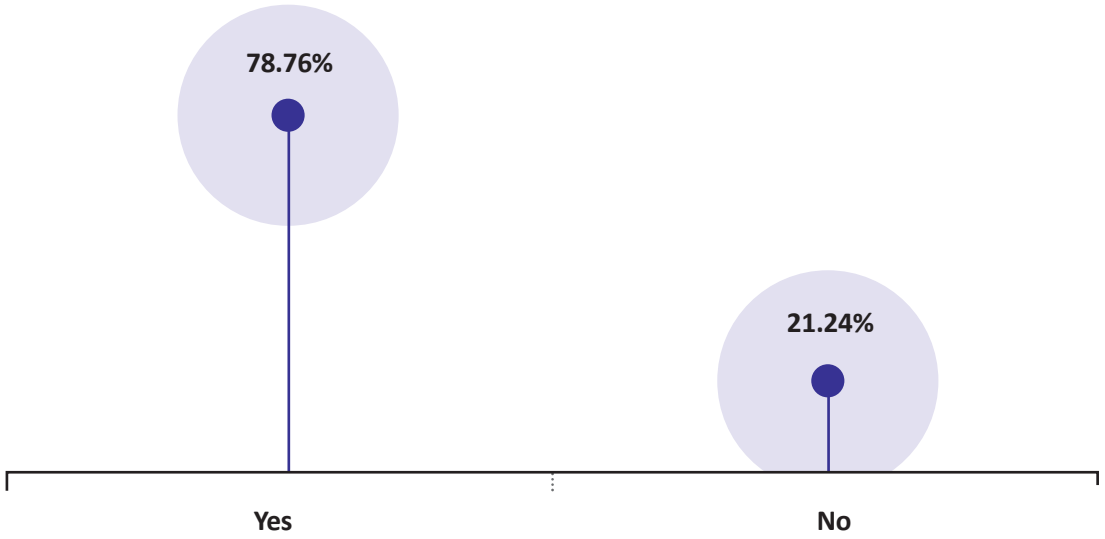
Capital Reserves. Most respondents indicated that they set aside monies for capital reserves. All the datasets reviewed featured similar percentages. The mechanism chosen by the majority was based on projected or perceived needs. What is considered "affordable" and "desired amount to save" were the next two popular choices.



** legend numbers are per 1000*

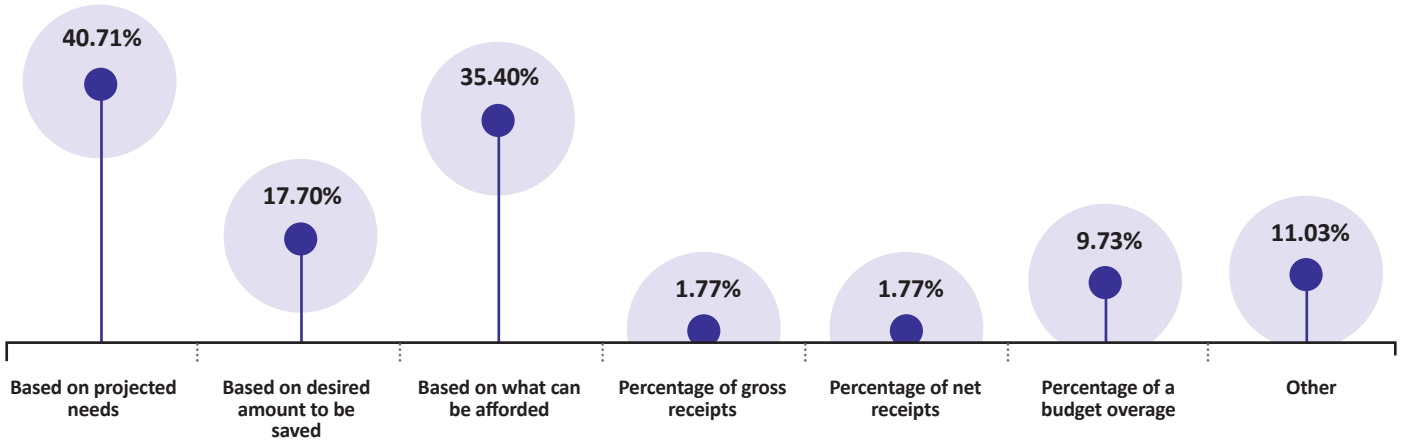
Organizations may want to consider calculating the cost of supporting the different ministries in their facility as an advanced data point.

Do you set aside money for capital reserves (life-cycle planning)?



All Respondents / National

How Respondents Fund Capital Reserves



While the majority of the respondents to set aside for capital reserves, less than half base it on projected needs.

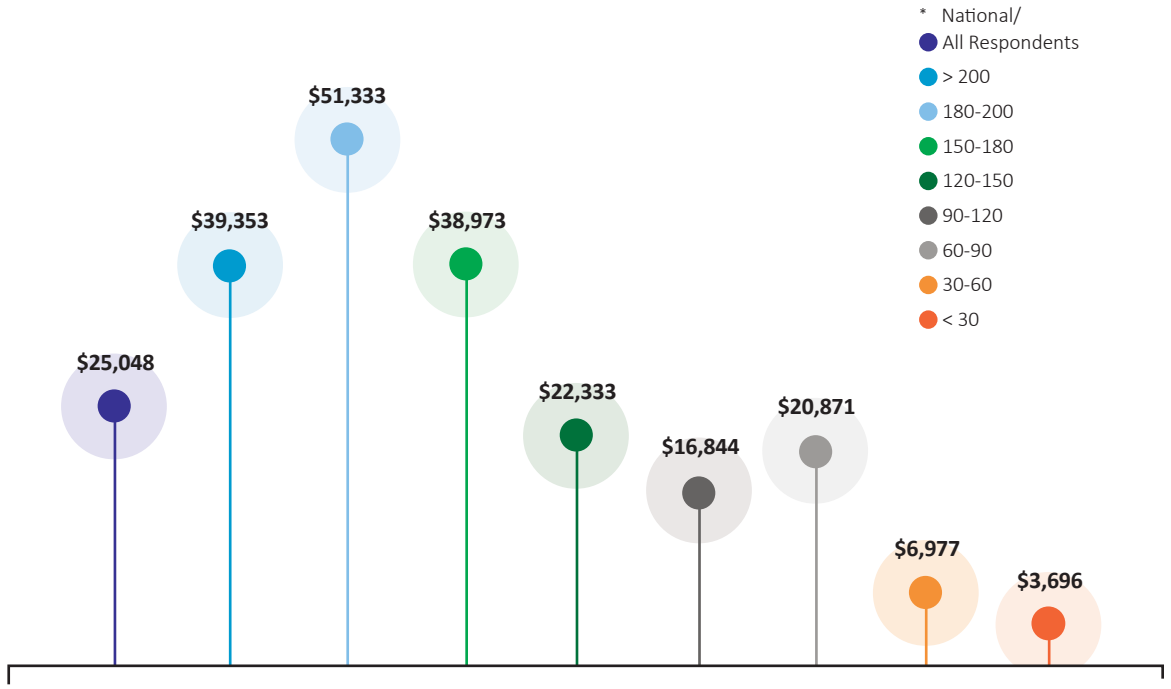
Churches need to understand the life-cycle of ALL facility components to effectively calculate capital reserve needs.

Total Annual Custodial Supplies Costs
per square foot

Square Footage	Cost per SF
All Respondents	$0.23
>200	$0.18
180-200†	$0.27
150-180	$0.24
120-150	$0.17
90-120	$0.16
60-90	$0.28
30-60	$0.16
<30	$0.15

†Limited number of responses received for this range. We recommend that if you fall into this range, you use the next highest range or the All Respondent figure.

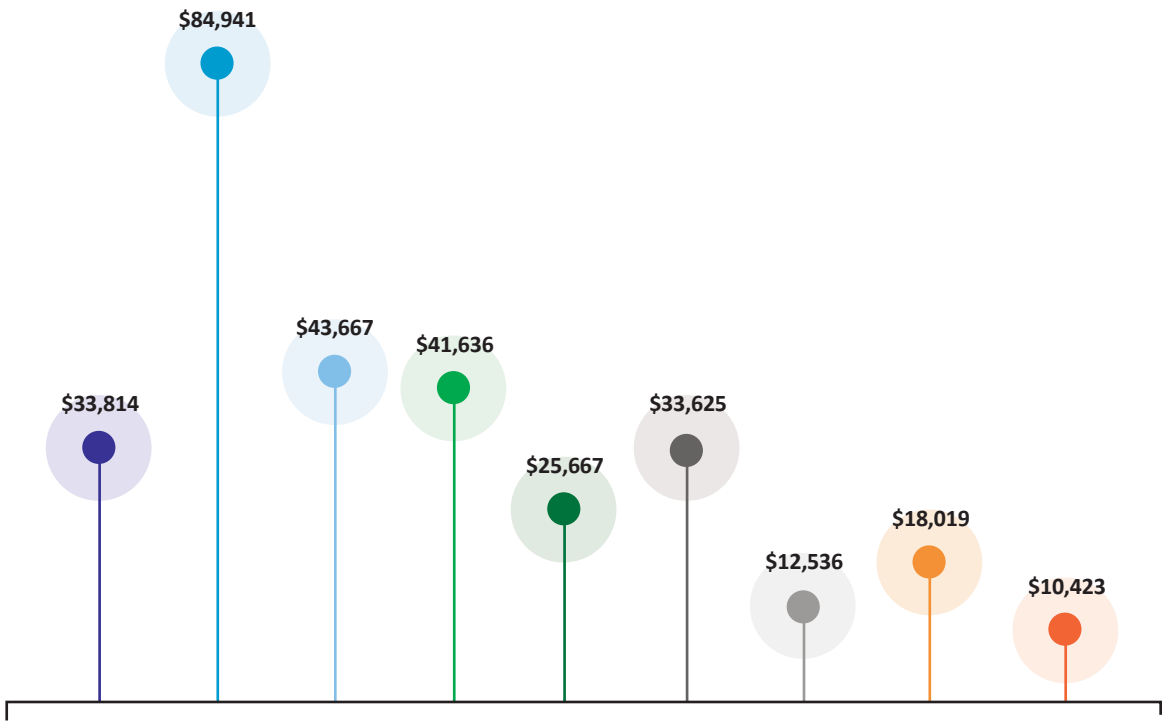
Total Annual Custodial Supplies



** legend numbers are per 1000*

Breakout of Custodial and Maintenance Supplies. Churches provided their annual cost for custodial and maintenance supplies to clarify expenses per square foot. Comparing across the datasets, the costs per square foot are remarkably similar. Maintenance supply spending per square foot is slightly higher when just considering the larger churches. The reported median expenditures per square foot for custodial are $0.23; for maintenance, it is $0.31.

Total Annual Maintenance Supplies



** legend numbers are per 1000*

Total Annual Maintenance Supplies Costs

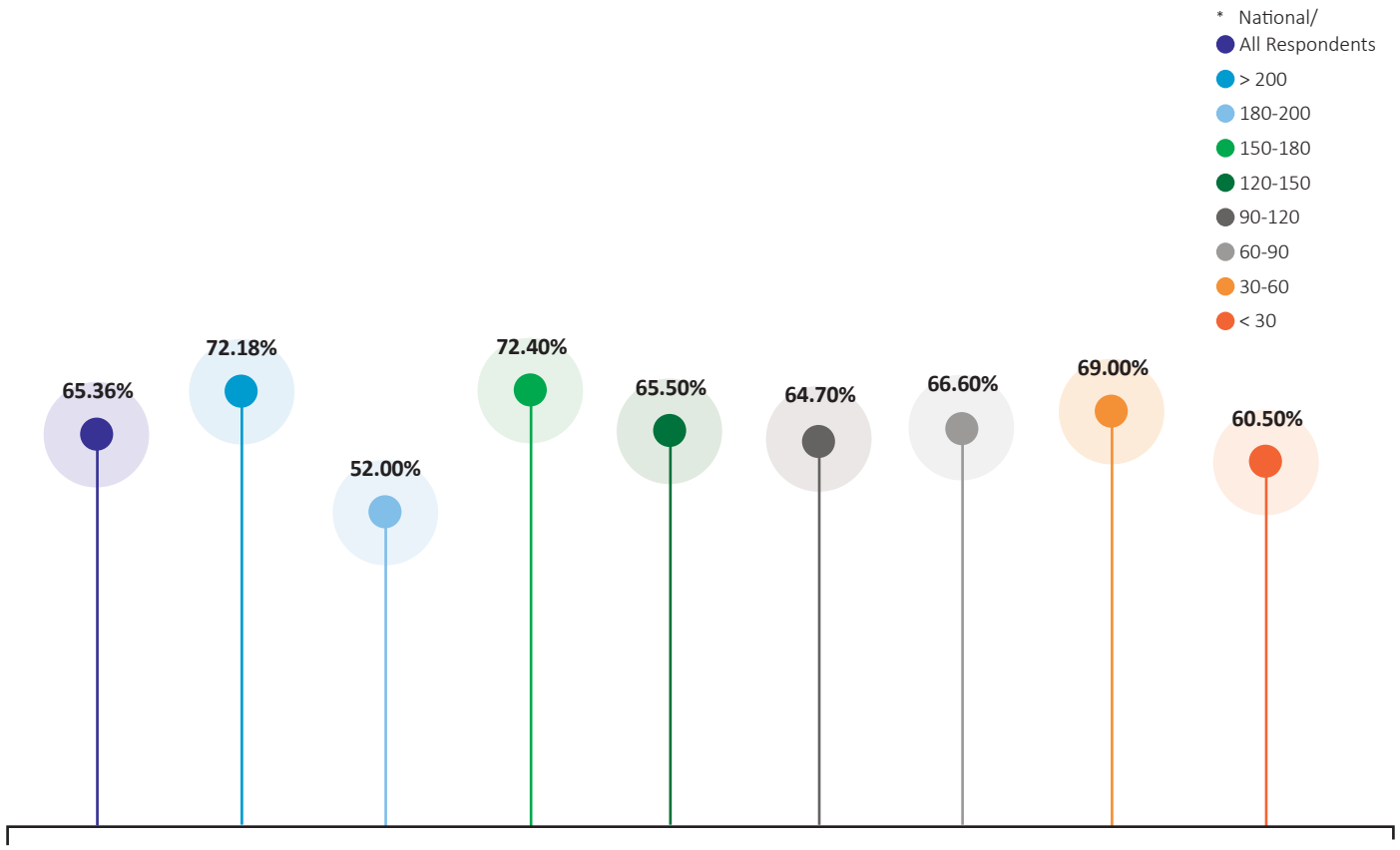
per square foot

Square Footage	Cost per SF
All Respondents	$0.31
>200	$0.40
180-200†	$0.23
150-180	$0.25
120-150	$0.19
90-120	$0.32
60-90	$0.17
30-60	$0.40
<30	$0.42

†Limited number of responses received for this range. We recommend that if you fall into this range, you use the next highest range or the All Respondent figure.

"[for custodial teams] ...13 hours a week (of an FTE) of lost cleaning potential"

If you use an in-house custodial staff, on average what percentage of their time is spent on cleaning vs. non-cleaning tasks?



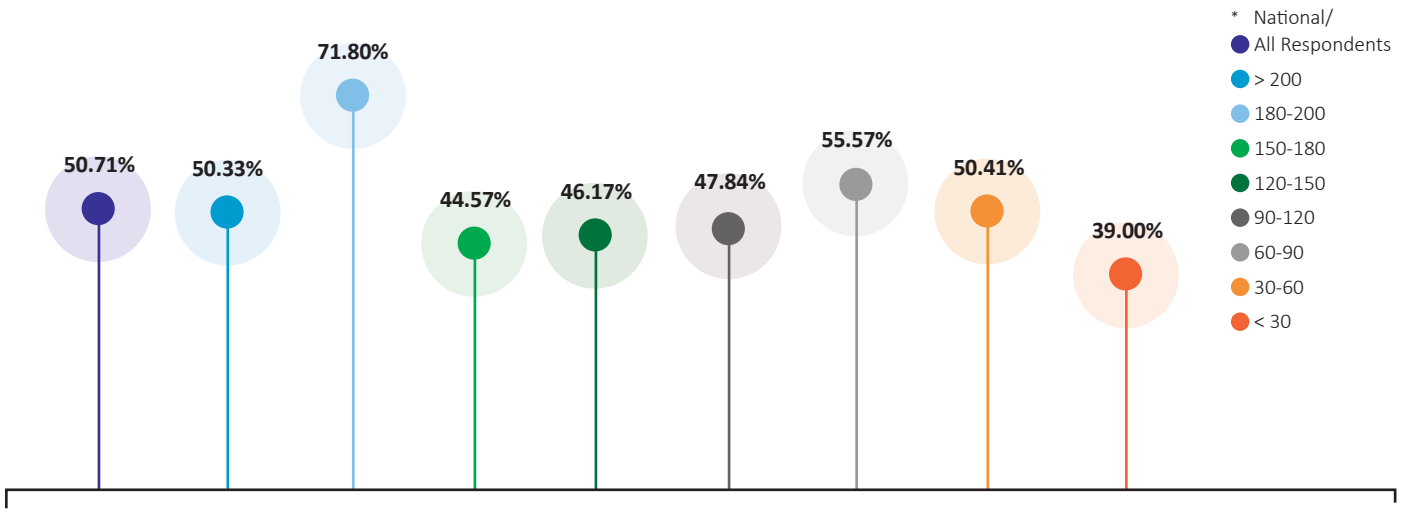
The reported percentage of time teams spend performing custodial tasks.

** legend numbers are per 1000*

Custodial/Maintenance Percentage On-Task. From the qualified survey respondents, we have a snapshot of the perceived time spent on task for facilities ranging from less than 30,000 square feet to over 200,000 square feet. What is clear (and consistent across the sub-sets as well) is that there is a great deal of lost time in our custodial and maintenance teams.

If you use an in-house maintenance team, on average what percentage of their time is spent on non-maintenance tasks?

(event support, moving things for staff, etc.)



The reported percentage of time teams spend performing maintenance tasks.

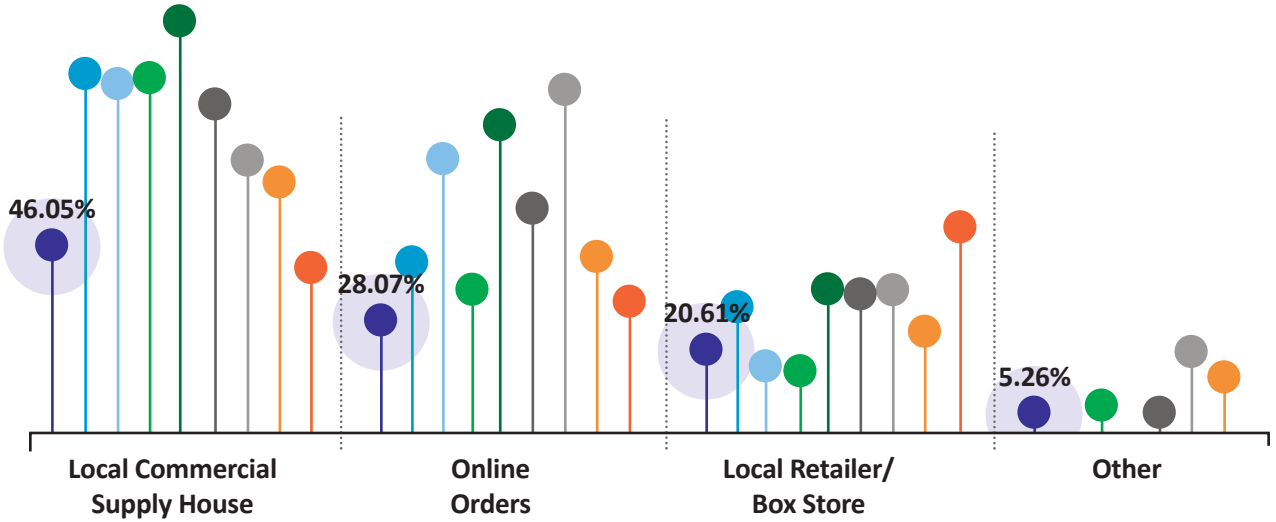
** legend numbers are per 1000*

Excluding vacation time, sick leave, and holidays, on average, custodial teams remain focused on cleaning for 1,359.5 hours a year, leaving 720.5 hours on tasks outside of cleaning (adding in time away will reduce these hours). That equates to 13 hours a week (per FTE) of lost cleaning potential. Maintenance teams appear to remain on maintenance tasks 1,054.8 hours a year, 1,025.2 hours annually are spent working on non-maintenance tasks. That is almost 20 hours a week of lost maintenance potential. The lost time is essential to consider when creating budgets and determining staffing schedules. That full-time equivalents you are planning on are (generally) not able to perform at a full-time level.

"[for maintenance teams] ...almost 20 hours a week of lost maintenance potential."

Where do you source your chemicals?

Custodial Items. The survey included several questions designed to determine the usage and adoption of modern cleaning techniques, equipment, and chemical selection within churches. Most churches report utilizing the local commercial chemical supply house for their chemical purchases. 51.72% of the qualified respondents take advantage of chemical dilution control. “Green Cleaning” is a priority for just under half of the qualified respondents.

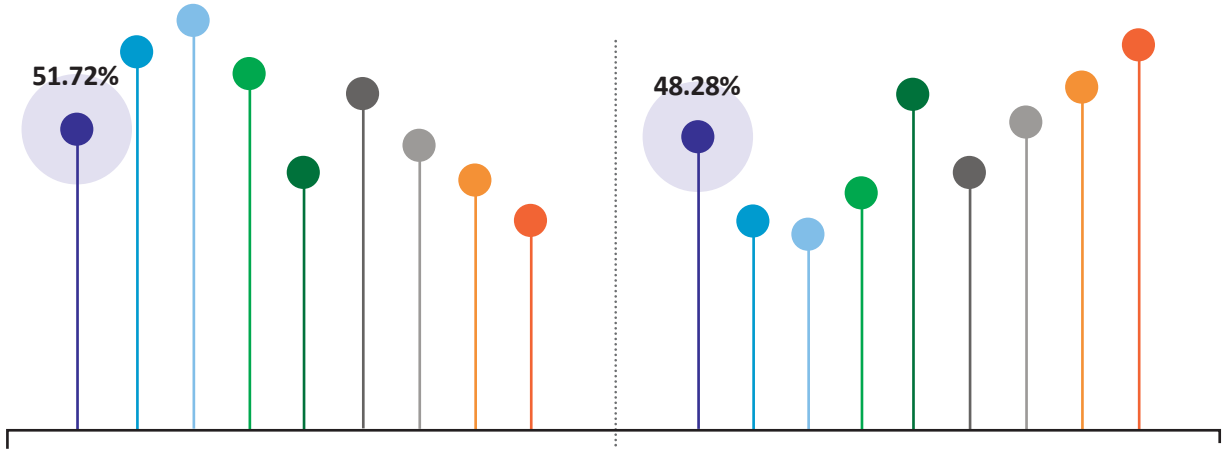


* National/				
All Respondents	46.05%	28.07%	20.61%	5.26%
> 200	86.96%	43.48%	30.43%	0.00%
180-200	83.33%	66.67%	16.67%	0.00%
150-180	85.71%	35.71%	14.29%	7.14%
120-150	100.00%	75.00%	37.50%	0.00%
90-120	80.00%	55.00%	35.00%	5.00%
60-90	66.67%	36.67%	36.67%	20.00%
30-60	60.71%	32.14%	25.00%	14.29%
< 30	38.89%	44.44%	50.00%	0.00%

** legend numbers are per 1000*

“Green Cleaning” is a priority for just under half of the qualified respondents.

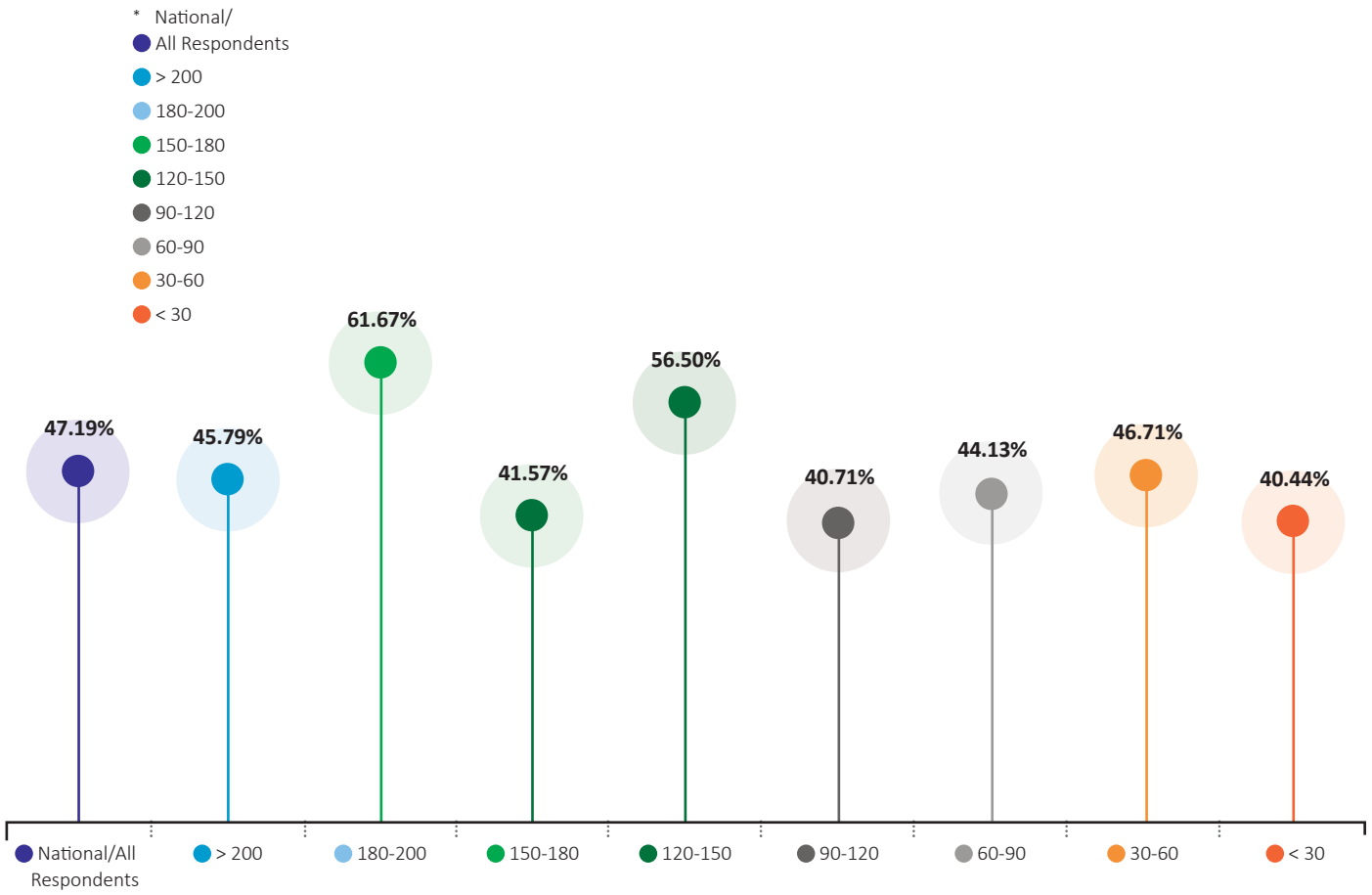
Do you utilize a dilution control, or metered delivery system, of some type?



* National/	Yes	No
All Respondents	51.72%	48.28%
> 200	78.26%	21.74%
180-200	83.33%	16.67%
150-180	69.23%	30.77%
120-150	37.50%	62.50%
90-120	63.16%	36.84%
60-90	46.67%	53.33%
30-60	35.71%	64.29%
< 30	22.22%	77.78%

** legend numbers are per 1000*

How important is “green” certified chemical certification in your chemical selection?



** legend numbers are per 1000*

The adoption of modern cleaning practices could positively impact the cleanliness and custodial expenses of over half of the respondents.

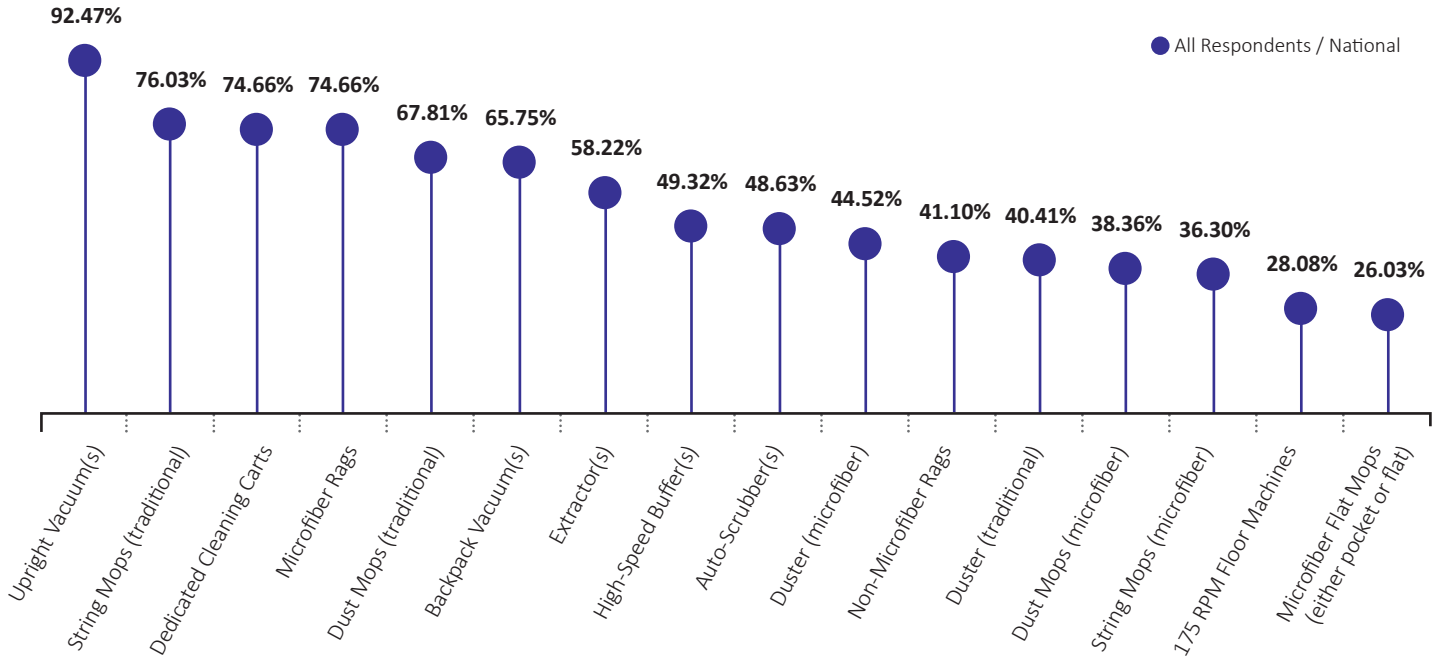
Green cleaning practices will improve occupant comfort and provide a safer facility.

"About half of the respondents claimed that microfiber was an integral component of their cleaning program."

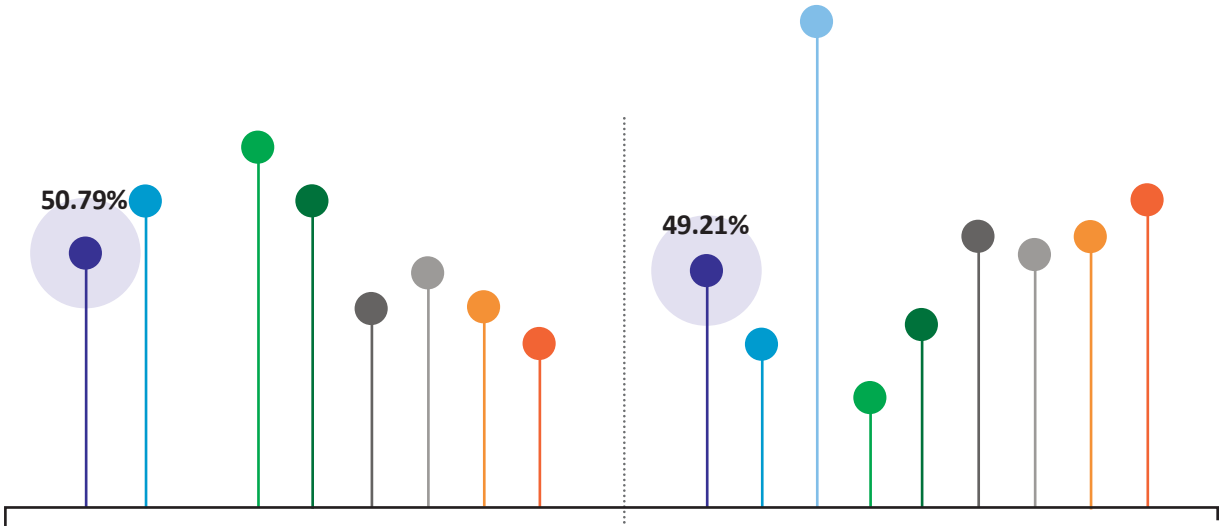
What equipment do you use in your facility?

The top three equipment "tools" in use for All Respondents is dedicated cleaning carts, microfiber rags, and upright vacuums. Interestingly, more of the smaller churches reported using backpack vacuums by a small margin.

The national average sees a 17% greater usage of traditional string mops than larger churches. The use of microfiber appears to be in use more with larger churches versus the national average; this may relate to the cost of microfiber equipment. About half of the respondents claimed that microfiber was an integral component of their cleaning program.



Is microfiber an integral component of your cleaning program?



* National/	Yes	No
All Respondents	50.79%	49.21%
> 200	65.22%	34.78%
180-200	0.00%	100.00%
150-180	76.92%	23.08%
120-150	62.50%	37.50%
90-120	42.11%	57.89%
60-90	48.28%	51.72%
30-60	42.86%	57.14%
< 30	35.29%	64.71%

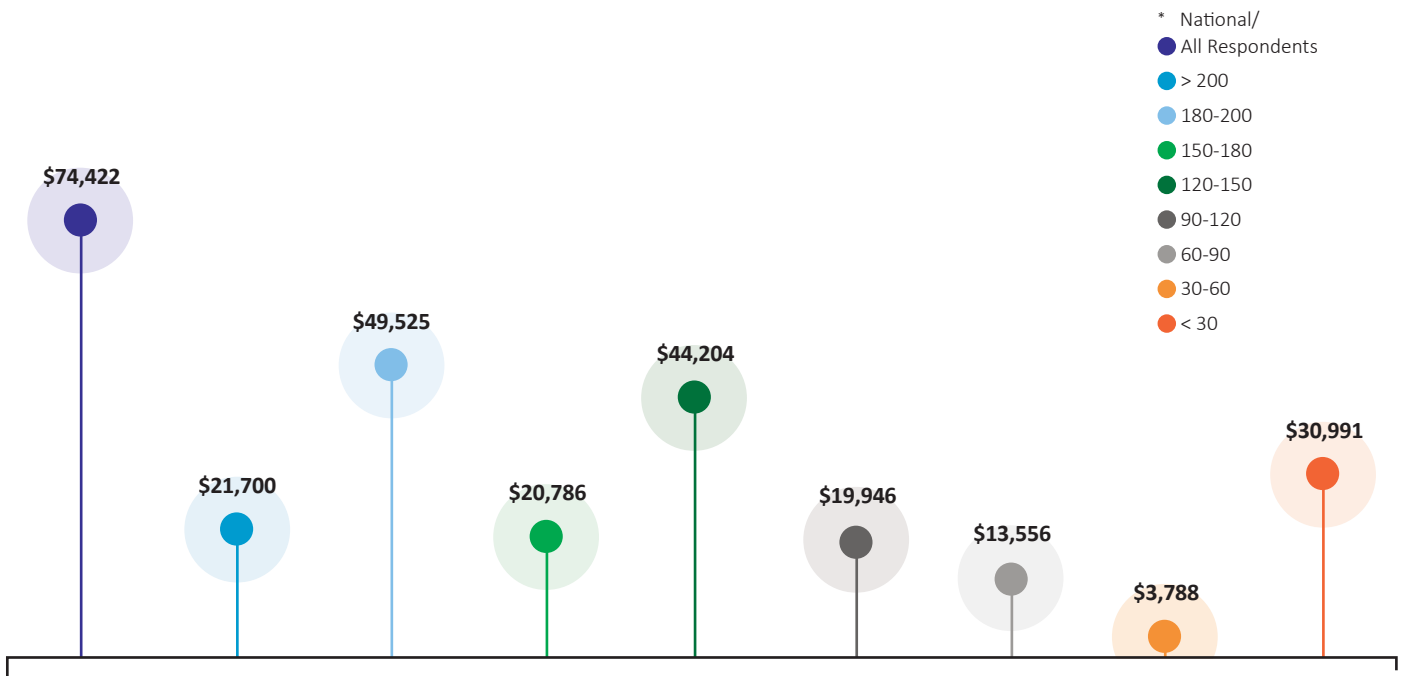
** legend numbers are per 1000*

Modern Cleaning the adoption of current and modern cleaning practices would reduce labor costs and potential injuries as well as providing a more efficient and cost-effective result.

HVAC Costs
Preventative maintenance has a direct influence on the operational efficiency and life-span of a unit.

12 Month HVAC Maintenance Costs

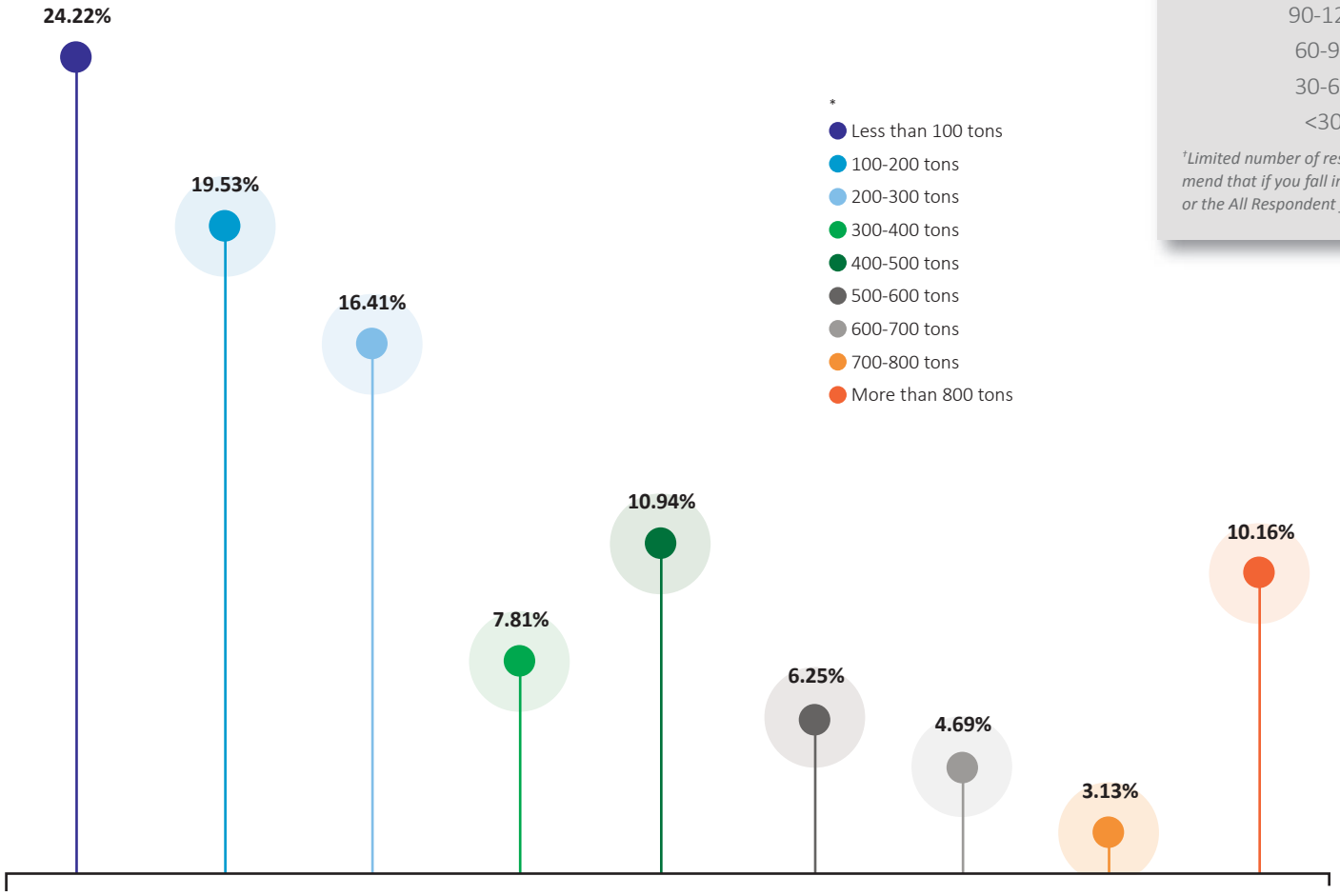
HVAC Costs and Information. The survey collected HVAC costs and information regarding preferences and type of equipment in use. The annual costs of maintaining and repairing/replacing HVAC equipment can have a direct impact on the utility costs for an organization. Energy Star states that at a minimum, on average, 30% of a facility's operating expenses are attributable to heating and cooling equipment operation.



** legend numbers are per 1000*

Total Tonnage Maintained

Additional HVAC Information. The following will detail HVAC information from the national (All Respondent) perspective.



** legend numbers are per 1000*

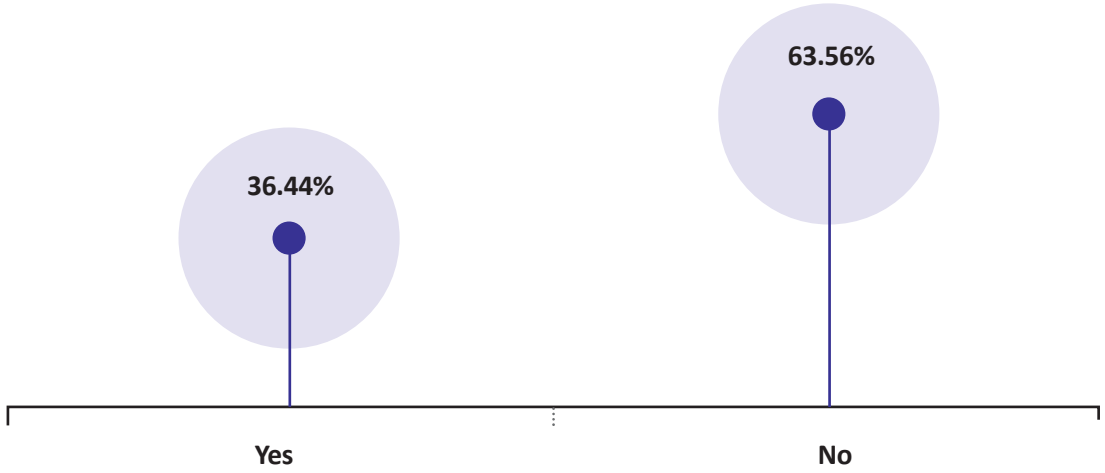
Total Annual HVAC Costs for Maintenance
per square foot

Square Footage	Cost per SF
All Respondents	$0.29
>200	$0.35
180-200	$0.11
150-180†	$0.30
120-150	$0.15
90-120	$0.42
60-90	$0.27
30-60	$0.30
<30	$0.15

†Limited number of responses received for this range. We recommend that if you fall into this range, you use the next highest range or the All Respondent figure.

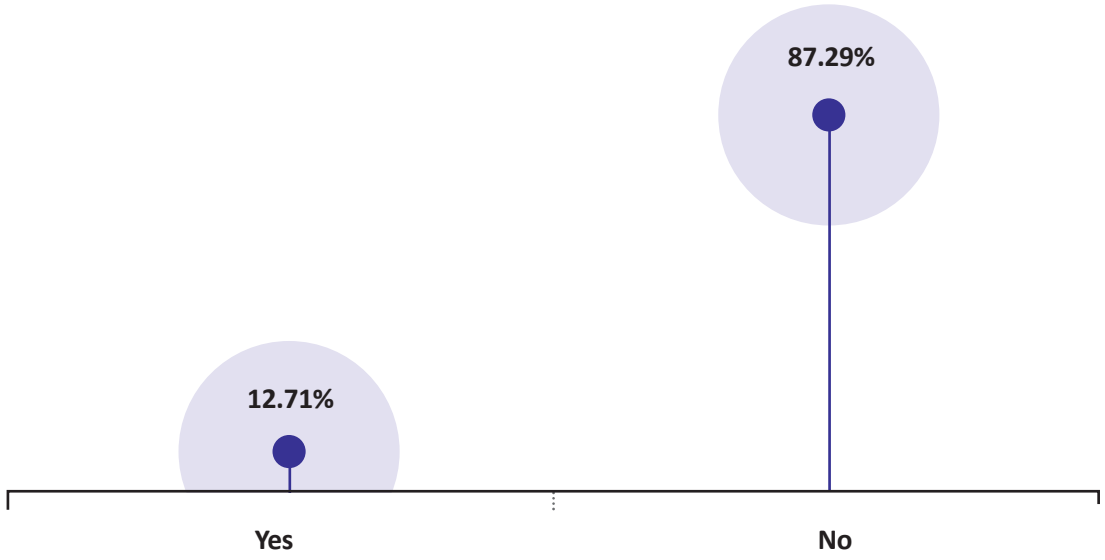
Type of Units
Most respondents utilize DX (direct exchange) air-conditioning units.

Do you have a chiller?

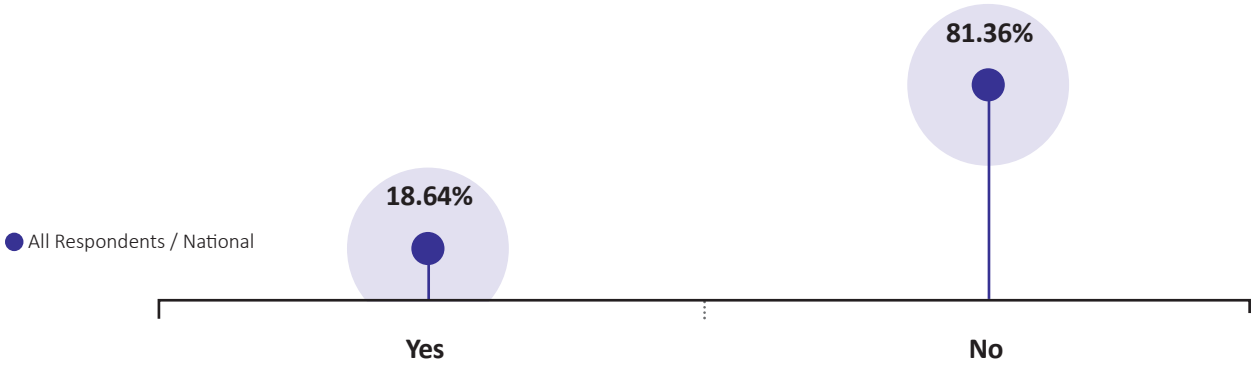


All Respondents / National

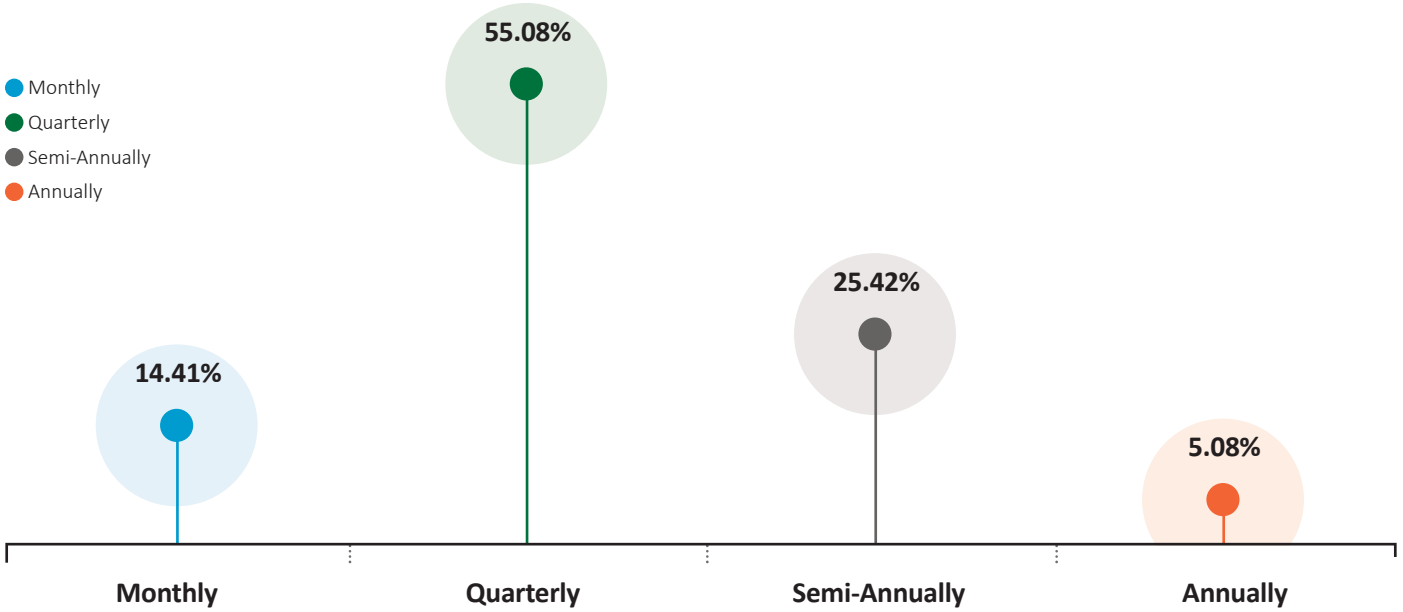
Do you have a cooling tower?



Do you have a water treatment system for your HVAC equipment (if applicable)?



How often are filter changes performed?

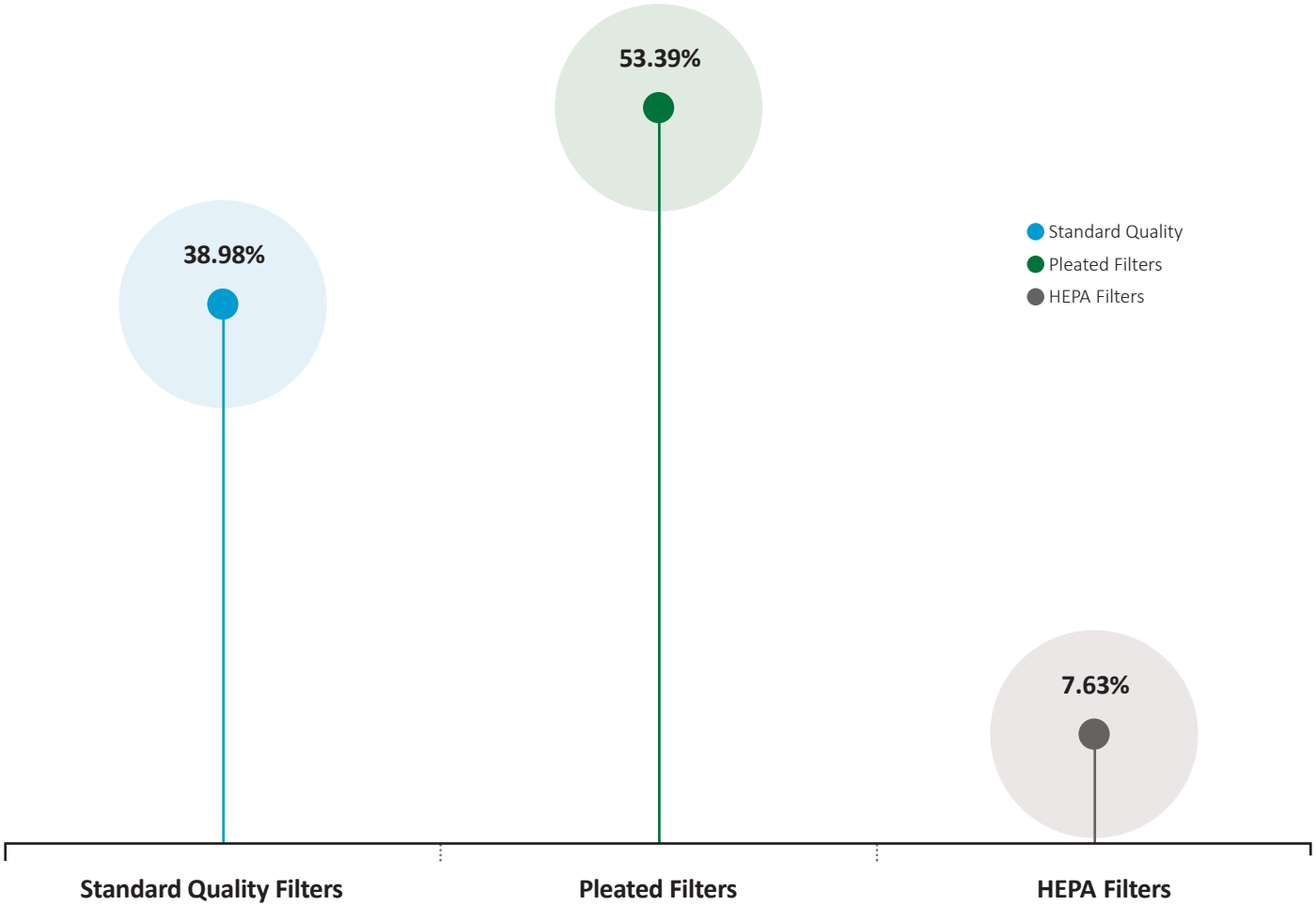


Filter Changes

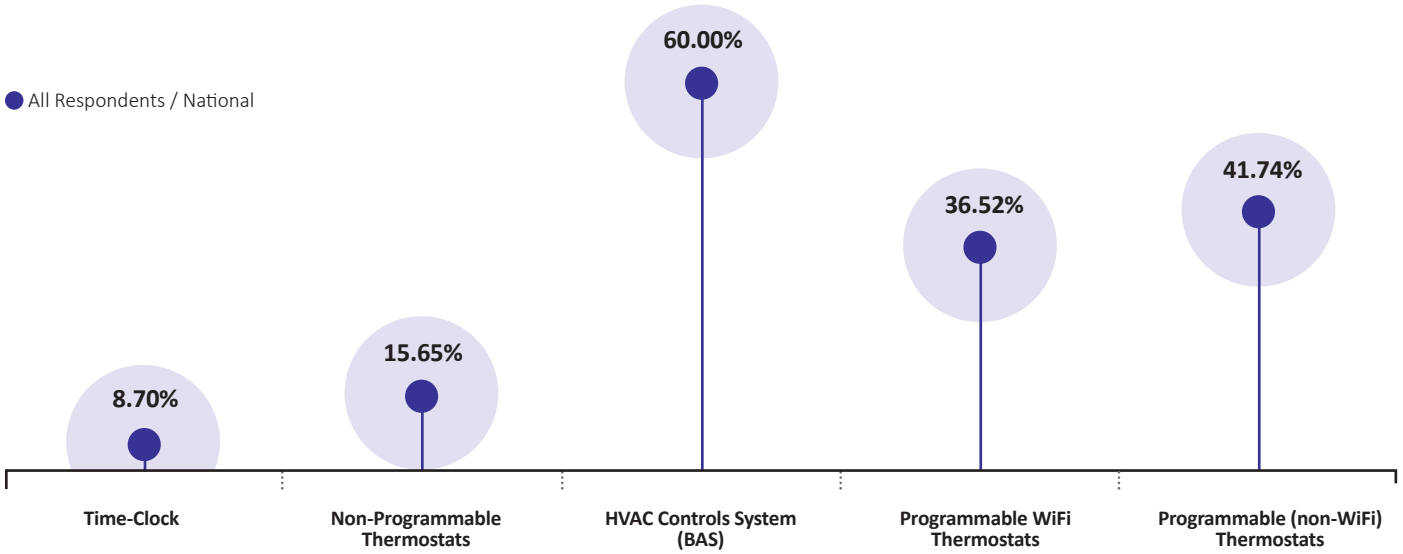
While modern pleated filters allow for a longer interval between changing, checking units monthly allows organizations to find any potential issues sooner.

A slight majority of respondents indicated preferring pleated filters, which is typical for quarterly filter changes.

What type of filters do you prefer?

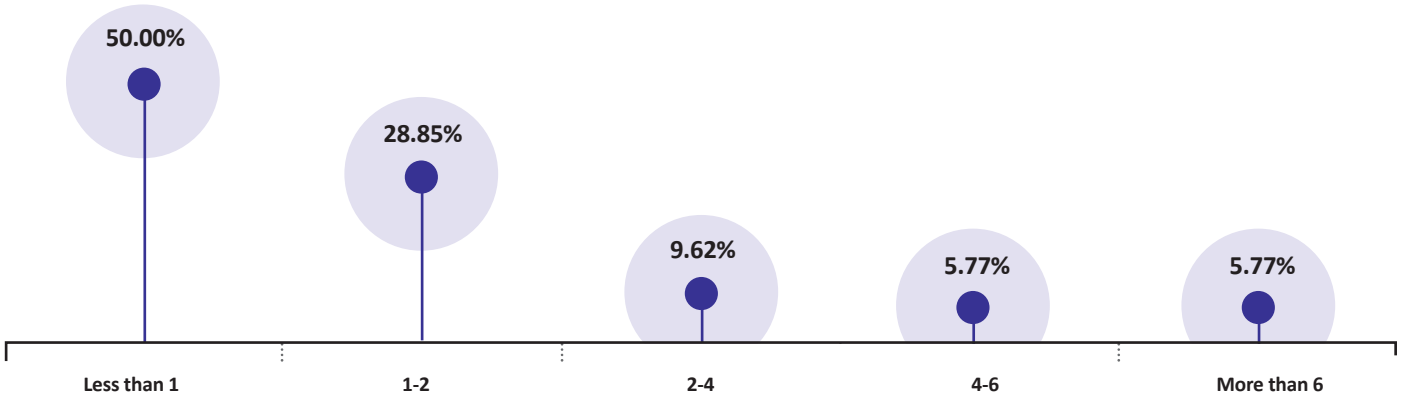


Do you have an HVAC control system?



Breakdown of HVAC controls in use. Top three brands reported in use are Honeywell, Trane, and Entouch/Johnson Controls (tie).

If you utilize HVAC controls, how many hours a week are spent scheduling?

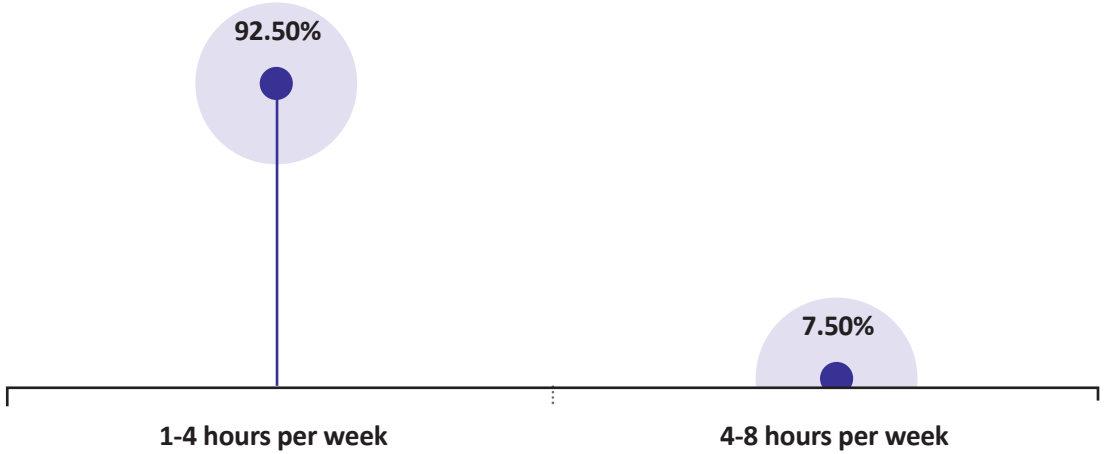


Hours spent scheduling per week with HVAC controls.

HVAC Controls and Integration. The survey asked respondents to share information regarding HVAC controls and automation. Many respondents indicated some level of an HVAC control system, less than a quarter in both datasets reported event calendar integration.

Hours spent programming per week without HVAC controls.

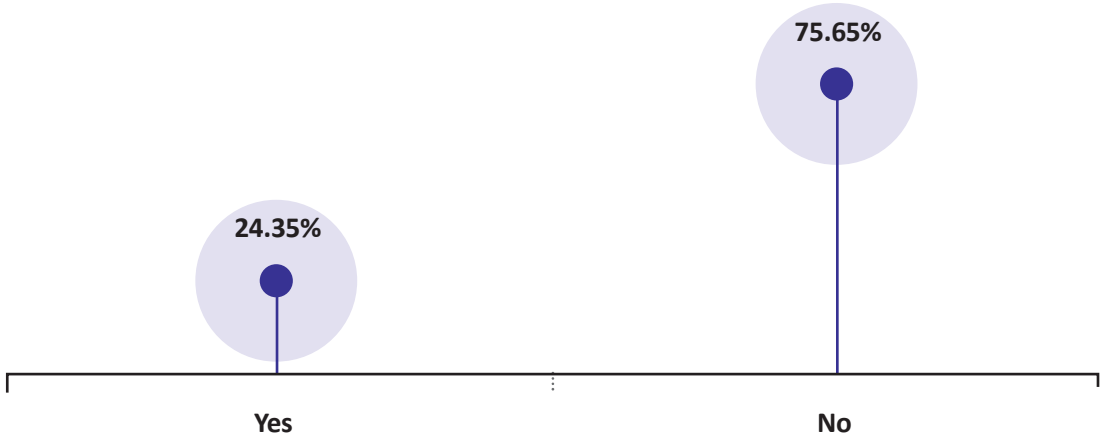
If you do not use HVAC controls or communicating thermostats, how many hours a week are spent adjusting thermostats?



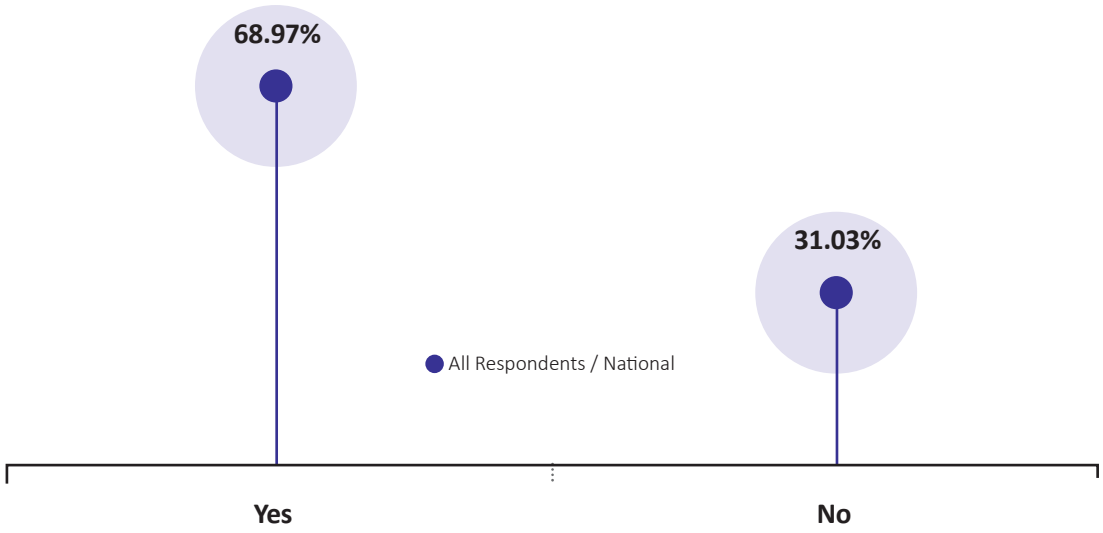
All Respondents / National

Percentage of respondents that integrated HVAC controls with a calendaring program. 33% of respondents reported integrating with eSPACE and COOLSPACE, 7.41% utilize a TRANE calendaring integration. The remaining respondents reported uses of various systems (less than 2% per system reported).

Have you integrated your HVAC controls with a scheduler/calendaring program?



Do you have an electronic access control system?



Percentage of respondents with some electronic access control system.

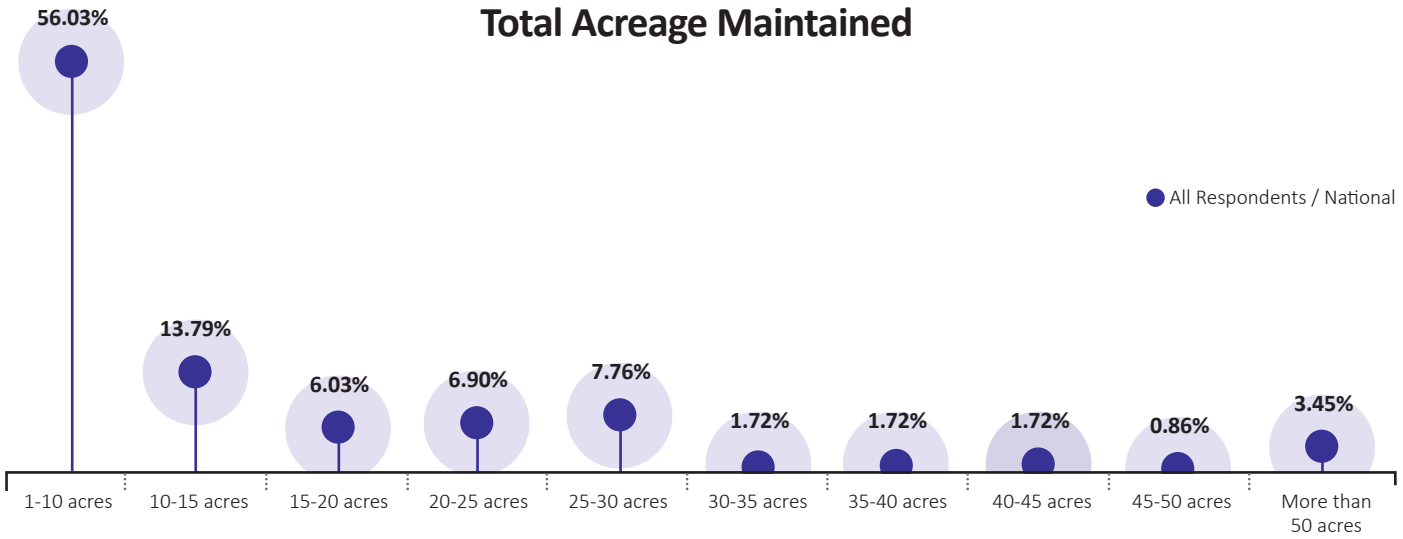
Electronic Access Control. The benchmarking survey collected responses on electronic access control, types in use, and hours spent opening and closing doors.

In the survey, we inquired about electronic access control integration. For the respondents that utilized electronic access control, there was no statistically significant report of a calendaring integration. The reported types of electronic access control in use ranged from electronic push-button type locks to fully integrated card-reading systems. While fully integrated electronic access control is in use in many commercial facilities across the nation, churches are slower to adopt a full-building approach. Many respondents reported that their children or preschool areas are the primary areas electronic access control is in use.

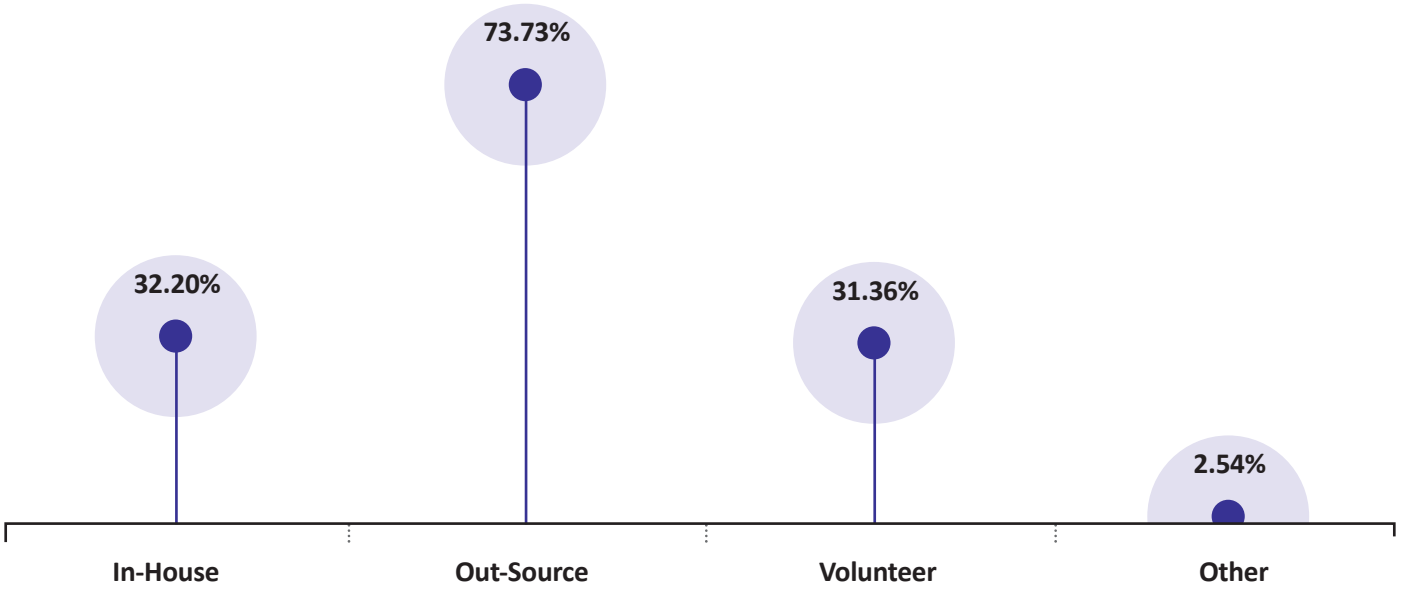
Other Automation in Use Lighting and landscaping irrigation were the other systems reported as currently integrated by a small percentage of respondents. Integrating lighting control with an event calendar is the next logical area of energy and operational efficiency enhancements to consider.

Landscaping.
Respondents identified the amount of landscaping maintained, the individual or group responsible for maintaining it, and the cost of maintaining.

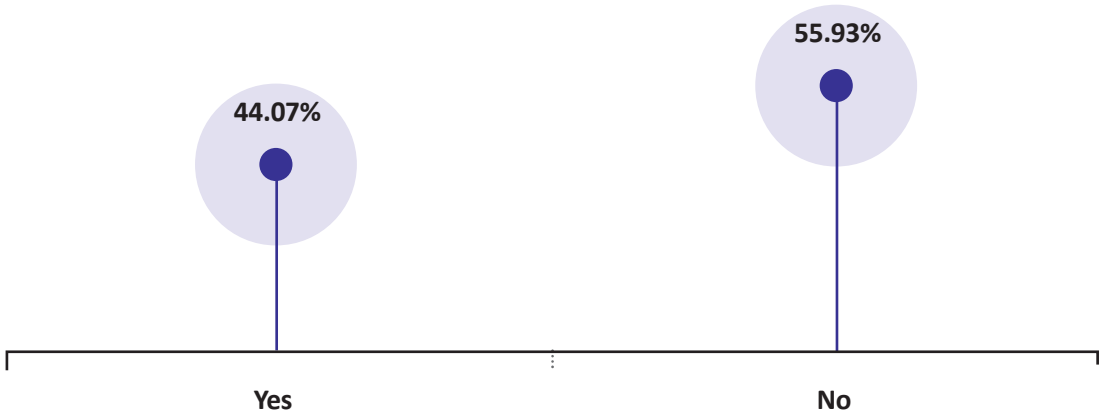
Total Acreage Maintained



How is the landscape maintained in your facility?

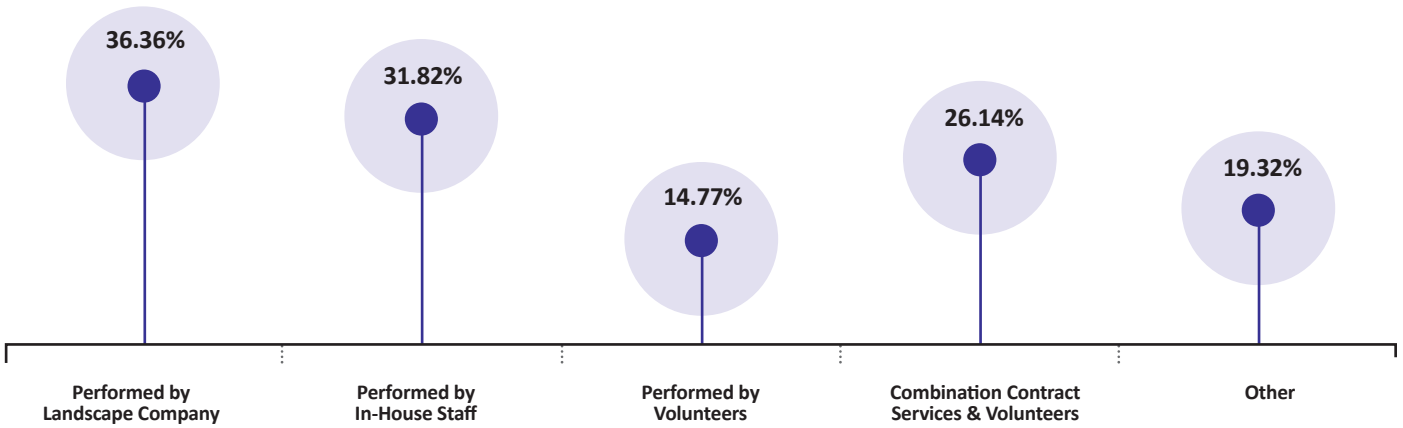


Do you contract out for arborist (tree pruning) services?



All Respondents / National

If relevant, who performs snow removal?



Utilizing Volunteers
Landscaping and exterior maintenance projects (to include coordinating with contractors) is an excellent area to consider utilizing your volunteers to allow paid-staff to concentrate on the interior of the facility.

*There is a great deal of flex for custodial staffing. 30,000 represents a median number for a middle intensity cleaning result.

Conclusion

This **2020 Church Facility Operations Benchmarking Report** is another tool for you to utilize to help improve your facility's organizational and budgeting practices. In collecting the data for the report, some items stood out. Over 35% of the respondents did not qualify for inclusion in the study. The respondents either did not know the answer to many of the questions, or their responses did not meet any logical or realistic standard.

The lack of fundamental facility knowledge is an issue with many churches across the country. Intentional and efficient budgeting can only occur when you know and understand the size of your facility and what you are spending/what it costs to maintain it per square foot. The report broke down to median cost per square foot for this reason: your square footage remains the same whether your giving increases or not. When your attendance goes down, the cost to maintain everything (per square foot) will remain the same as when it is at capacity. When looking at an annual budget figure and reducing it by a percentage, the number does not seem as harmful. Take that same number and show the difference in spending per square foot; you reveal the real story.

Our intent with this report is to provide a useful starting point to gauge your facility's organizational health.

However, this is not intended to be a one-time process. Based on the data received, there are several immediate areas for every church to consider both now and ongoing:

Staffing

- Staff (both custodial and maintenance) spend much of their time performing “other” tasks. Improvements in training and better separation between job-specific tasks and other tasks would improve the overall health and maintenance of many facilities. In some cases, hiring an entry-level person would be more efficient than allowing your trained staff to move things from place to place.

- Based on previous studies performed by IFMA®, Smart Church Solutions, and the APPA, the average facility requires one FTE (Full Time Equivalent) worker per 25,000-35,000 square feet for maintenance and on average one FTE per 30,000 square feet for custodial*. Our study showed that churches, on average, appear to staff at 50% of this recommended rate. This staffing level reduces further by the reported time spent “off-task” (35% for custodial, 50% for maintenance).

This reduced staffing level and time on task will increase deferred maintenance and cleaning concerns.

- **Facility Condition Assessments**
  - This data is most effective when used in conjunction with a realistic assessment of the current condition of the facility. The per square foot expenditures assumes that you are maintaining and replacing items as required and on-time. If that is not the case, spending per square foot will need to increase to address the shortfall. That can only be realized once you know where you are.
- **Janitorial Supplies and Practices**
  - There appears to be an opportunity for those that perform cleaning In-house. Essentially only 50% of respondents are taking advantage of green cleaning practices, microfiber, and mechanization. Adoption of these can increase productivity, the effectiveness of cleaning, and reduce costs.
  - Previous studied by Smart Church Solutions and IFMA® report a range of $1.50-$2.50 per square foot for custodial costs. This is the range for building meeting desired cleaning results. Based on reported results most churches underfund/understaff in this area. This can result in facilities that are not as clean as they should be. In determining a desired cleaning result, it is important to remember that typically churches serve two medically fragile demographics (very young/very old). Basic levels of cleaning may not be appropriate for your facility.
- **Maintenance**
  - Previous studied by Smart Church Solutions and IFMA® report a range of $2.25 to $3.00 per square foot for maintenance costs. Many of the respondents reported spending significantly less than the recommended range. Modern church facilities are operating in a comparable manner to the large commercial facilities (multi-day operations with significant occupant turn-over every day) which requires appropriate levels of staffing and budgets to avoid compounding deferred maintenance.

Standards and Practice
There is an opportunity for most facilities to improve training opportunities for their teams as well as develop better standards.

Data Collection
Most of the recommendations found in here require good data to be collected so that a realistic path forward can be determined.

If you cannot gather all the data in-house, consider investing in hiring out the data-collection and evaluation process.

- **Utility Costs**

  - This study has affirmed data previously reported in other studies by IFMA® and Smart Church Solutions. The reported range for utility expense, per square foot, are between $1.00 to $1.50. Efficient facilities generally operate near the $1.25 per square foot range. Facilities that spend more than $1.25 but less than $1.50 will generally benefit from equipment and intelligent control investments to further reduce expenditures. Facilities that are above the $1.50 per square foot range should review behaviors within the facility (how personnel use the systems) and performance of the equipment (is it operating as designed). Addressing these two items may reduce costs initially. Conversely, if you are below the $1.00 per square foot range, you may have an oversized facility that is underutilized.

- **Life Cycle Monitoring**

  - Successful organizations will use a tool to establish and track budgeting needs to plan for Capital Reserves carefully. The goal should be to have the cash on hand to replace items as they reach the end of service life. Only 40% of respondents reported finding their Capital Reserves based on projected needs, and 20% of respondents did not set aside funds for Capital Reserves. Best practices suggest that most churches should be allocating $2.00 to $3.00 per square foot per year for capital reserves and life cycle planning. While this high-level formula is tried and tested, the best method of determining the appropriate amount of capital reserve funds is to use a tool to line item all the facility components with a life cycle. This tool should account for the Current Replacement Cost, Remaining Useful Life, an Inflation Factor and a means by which to project annual monies to be set aside and projected expenditures of the funds in the future.

- **IoT Opportunities**

  - There exist opportunities for churches of all sizes to take advantage of the improvement in the Internet of Things, specifically HVAC and Lighting integration. Based on our

experience and findings, these integration opportunities have a potential increase in operational efficiency of 20-30%. Efficiencies are maximized when the control systems are integrated with a scheduling program that can react to changing event needs automatically. The reason that this is so critical is because, based on the above information, churches are spending an excessive amount of time (thus money) performing tasks by skilled personnel that could be automated which would free up more time for these people to perform the needed tasks. As stated above, churches understaff their facility teams, so it would be prudent to make more efficient use of the human resources entrusted to us by automating the “mundane” tasks such as manually regulating HVAC controls and unlocking doors.

Put it together.
The path forward is maximized when improvements are integrated across all areas of a facility.

Now What?
This information will just add to the noise facility stewards hear every day if no positive action is not taken. You do not have to do everything at once, but you will need to start today...every day we wait is another day of deterioration.

SMART CHURCH SOLUTIONS

Final Thoughts

While this is no surprise to the researchers and the team involved in this project, this report reinforces a concern that churches are under-funding their facility operations budgets and capital reserves. The under-funding of ongoing operational budgets and staffing are a direct contributor to deferred maintenance in the majority of churches in America. Deferred maintenance, left unaddressed, compounds at an exponential rate and can be a drain on the churches budget in future years. In addition, churches without a proactive capital reserve and life cycle plan will face large future expenditures that can cripple many churches financially. These issues are not only a physical concern and reality, but also a spiritual one. If we genuinely believe that everything on earth belongs to God and He has entrusted them to us as His Stewards, we MUST take the stewardship of our worship and ministry facilities seriously.

We encourage you to start the process of taking a more intentional approach to becoming more effective and efficient with your facility operations. We hope the information provided in this report is of benefit to you. When you are ready to take the next step, we are here prepared to partner with you.

SMART CHURCH SOLUTIONS

Additional Resources

- **Facility Evaluator** — When was the last time your church facility had a "physical" or checkup? 10 years ago? 20 years ago? Never? If it has been more than 1 year, act now! This free evaluation will give you a snapshot of how your facility lines up with the national norms.
  https://www.smartchurchsolutions.com/church-facility-evaluator

- **Cycle Calculator** —Nearly every component of your facilities will have to be replaced or significantly modified at some point during its effective life cycle. Do you have a plan to address the inevitable? The Life Cycle Calculator sets you on the right path to be the best steward of the facilities entrusted to you. This FREE tool will assist you with the reality of capital reserves and renewals.
  https://www.smartchurchsolutions.com/espace/lifecycle-calculator

- **eSPACE** —Event Scheduling and Work Order Management Software.
  https://www.smartchurchsolutions.com/espace/work-order-management

- **Church Facility Stewardship Manual** – This nearly 300 page exhaustive tool provides: Facility Management Check Lists – Facility Maintenance Ideas – Facility Team Job Descriptions – Templates – Glossary of Terms – Best Practices – Process, Procedures, & Tips – Articles and Helpful Content.
  https://www.cfms.cool/downloads/intentional-church-series-facility-stewardship-manual/

- **The Four Buckets of Church Facility Budgeting** (eBook) — This resource is a tremendous guide to help you determine what your budgets should be and the various buckets monies should be allocated. Operational budgeting is not rocket science, but it must be INTENTIONAL.
  https://www.smartchurchsolutions.com/four-buckets-of-church-facility-budgeting

- **Facility Condition Assessment** —Let our team of Facility Specialists check the health of your facility

You are NOT alone.
You have resources available to you. Let us help you make improvements in your facility one step at a time.

Smart Church Solutions

Charlotte, NC 28270

1.888.448.5664

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  https://www.smartchurchsolutions.com/espace/lifecycle-calculator

Trade Associations

- **National Association of Church Facility Managers** – *https://nacfm.com/*
- **IFMA** (International facility Management Association) – *https://www.ifma.org/*
- **ISSA** (International Sanitary Supply Association) – *https://www.issa.com*
- **APPA** – Leadership in Educational Facilities – *https://www.appa.org*
- **BOMA** (Building Owners and Managers Association) – *https://www.boma.org*

Reach out to us with any questions at:
SmartChurchSolutions.com or **Lee@SmartChurchSolutions.com**