

## Staffing Trends

The following tables illustrate the maintenance staffing trends and current status. Over the years, a concentrated effort has been made to fund additional positions within the financial resources available to the Board.

The Department of Maintenance team has been able to retain a clean, functional, and solid educational environment despite the past staffing trends. This success can lead one to believe that maintenance functions and budgets are adequately addressed. While the maintenance team has been highly effective in maintaining the facilities, there are limitations to the extent to which this can be accomplished. The following tables are used to monitor management effectiveness, workload trends, work backlog, and staffing level to ensure operational effectiveness and show resource challenges.

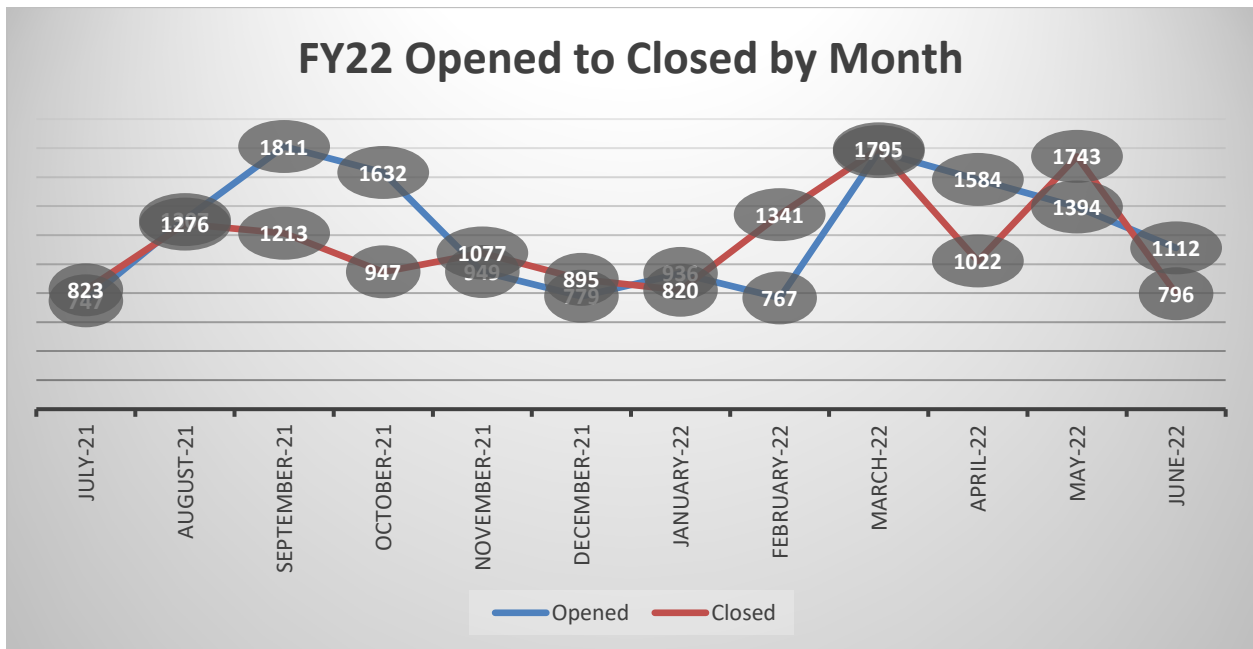
**Table 1** Fiscal Year Utilization

Fiscal Year	Percent Utilization	Acceptable Rate of Utilization
2012	84.96%	72% - 84%
2013	79.15%	
2014	80.18%	
2015	80.79%	
2016	80.50%	
2017	81.38%	
2018	83.99%	
2019	82.48%	
2020	85.20%	
2021	77.87%	
2022	76.32%	

**Table 1** shows the utilization for fiscal years 2012 through 2022. This information illustrates that the utilization of the Department of Maintenance has decreased in the past ten years from 84.96% in FY 2012 to 76.32% in FY 2022 (with a short-term decrease of 85.2 % in FY 20 to 76.32 in FY 22). According to R. Keith Mobley, Contributing Editor “Labor Utilization,” an acceptable utilization rate ranges from 72% to 84%, maintenance

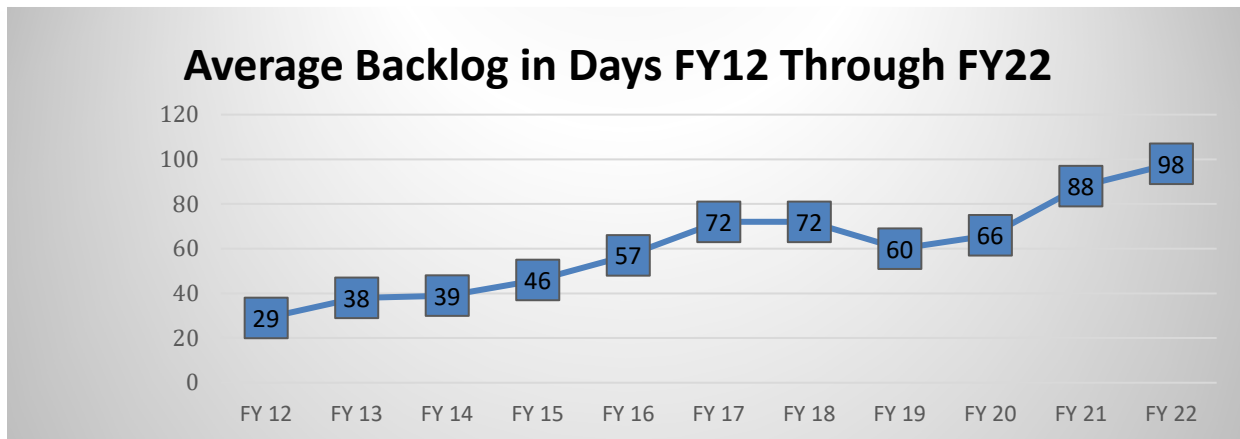
organizations could achieve 84% utilization assuming all work was planned and correctly supervised. The decreased utilization this year was likely due to the impact of the persistent vacancy of maintenance trade positions. This information will continue to be collected and used to help manage decisions affecting productivity, utilization, and management support.

**Table 2** Work Orders (Open to Closed)



**Table 2** illustrates the amount of work orders opened and closed by month for FY 2022.

**Table 3** Average Annual Backlog

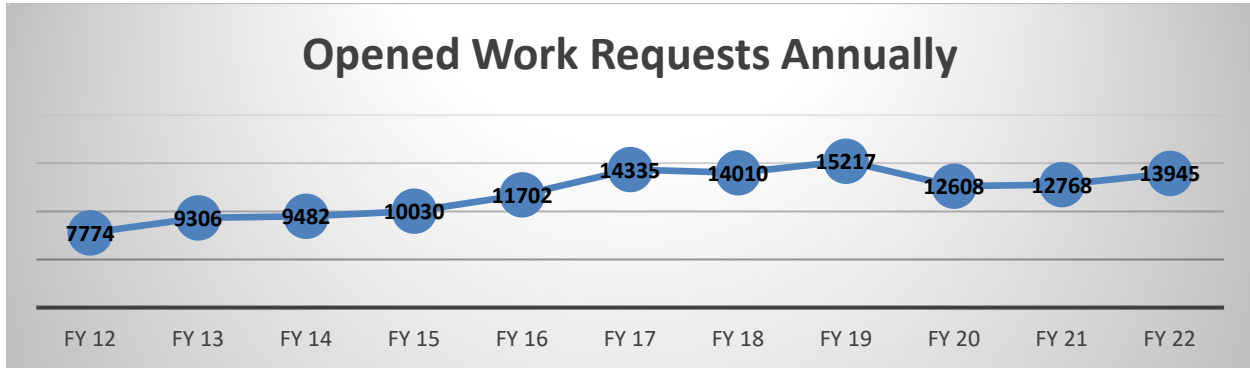


**Table 3** shows the average backlog in days for each year. This information shows an average backlog of 98 days in FY 2022. The increase of backlog overtime is due to many factors such as:

- FY 15 - The addition of Captain Walter F. Duke Elementary School 77,572 sq. ft.
- FY 16-22 - An increase in work order requests beyond our current ability to respond. Since FY 16, we have experienced an increase of 2,243 work orders annually (**Table 3.A.**)
- Staffing Levels see (**Table 4**), and persistently vacant positions
- Aging of schools with 1,065,952 (41%) square feet of school space reaching 20 years of age (**Table 7**)

Industry standards consider a 30 to 60 day backlog of work healthy. Although from a customer service perspective in a non-profit environment, response to any work request delayed more than 30 days can cause dissatisfaction of the customer. This was confirmed based on the customer survey results.

**Table 3.A.** Work Order Request



**Table 4** Maintenance Staffing

Fiscal Year	Sq. Ft. of Facilities	Current Staffing	Current Staffing Ratio Per Sq. Ft.	APPA Suggested Staffing Ratio Per Sq. Ft.	APPA Suggested Staffing	APPA Diff +/-
2012	2,253,697	32.7	68,920	67,456	33	-1
2013	2,446,476	33.25	73,578	67,456	36	-3
2014	2,446,476	34.3	71,326	67,456	36	-2
2015	2,446,476	34.3	71,326	67,456	36	-2
2016	2,530,438	34.05	74,315	67,456	38	-3
2017	2,535,638	33.85	74,908	67,456	38	-4
2018	2,535,638	33.85	74,908	67,456	38	-4
2019	2,535,638	33.85	74,908	67,456	38	-4
2020	2,571,404	33.85	75,965	67,456	38	-4
2021	2,582,230	33.85	76,284	67,456	38	-4
2022	2,585,230	33.85	76,373	67,456	38	-4

\* APPA American Physical Plan Association  
(based on Level 2 Comprehensive Stewardship)

**Table 4** shows the recommended staffing levels compared to the current staffing levels based on the American Physical Plan Association suggested staffing ratio, for APPA’s Level 2 (Comprehensive Stewardship).

Based on the information in tables 1, 2, 3, 3a, and 4, the Department of Maintenance has a 98-day backlog of work and work utilization is at 76%. This information indicates our utilization is healthy, our backlog is unhealthy, and our staffing is less than recommended. Based on this data, the Department of Maintenance will be requesting

increased funding for the contracted services categories and / or FTEs to supplement the work required to maintain the current level of service and facility conditions.

## **Planned / Unplanned Work Order Request**

**Planned:** A scheduled work request is used for situations/issues not affecting the learning environment, safety, or physical well-being of the staff, students, or facility (i.e., moving assistance, installation, assembly of new equipment, additions, relocating of utilities, and/or interior configuration modifications) and does not require an immediate or priority response. This category also includes preventive maintenance work orders and inspections, as well as the resulting action required.

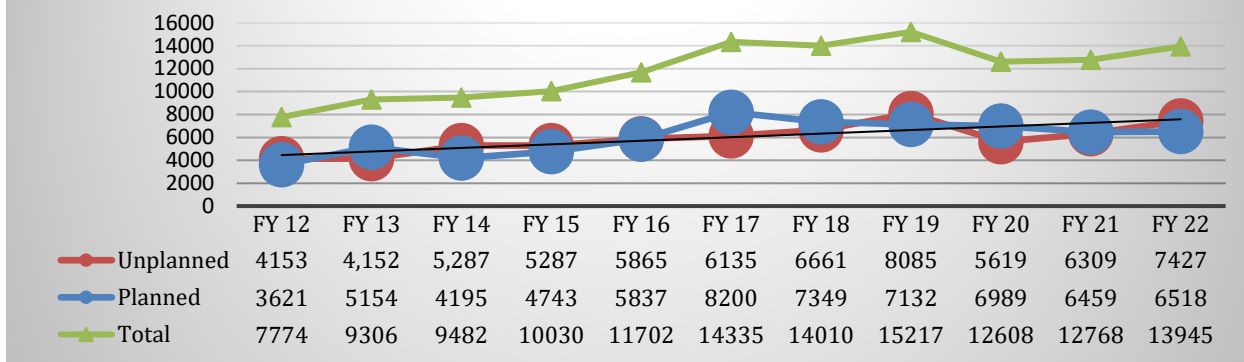
**Unplanned:** Any work request that is urgent or requires a priority response or results from an inspection done by an independent party that affects the safety or physical well-being of the staff, students, or facility.

The Department of Maintenance has made a continuous effort to reduce the amount of unplanned work to improve the teaching and working environments for the students, staff, and community of SMCPs by implementing a rigorous preventive maintenance program. As the following chart shows, since July 2011 the amount of planned and unplanned work has remained consistent at about 51% planned and 49% unplanned, while the total amount of work orders has increased by 48%. It is generally accepted that after the amount of planned work surpasses unplanned work that not only will a "Preventive Maintenance Schedule" continue to increase its effectiveness, but the amount of work orders completed will also increase. This is due to the benefits of planned work environments; this provides the ability to plan, purchase and execute repairs, renovations, and replacements in a planned, preventive, and non-reactionary manner.

As a percent of total work orders received in 2012, 53% were unplanned with 47% planned, in 2022, 53% were unplanned and 47% were planned. **(See Table 5.A.)**

### **Table 5.A.**

## Planned / Unplanned Work Requests



The above charts show after a steady increase in total workorders, we have maintained the proportion that are planned and unplanned. With the backlog growing, it becomes vital to plan as much work as possible to improve effectiveness. Planned work orders are primarily comprised of logistic requests and preventive maintenance tasks and the associated renovation, repair, or replacement tasks. We will be monitoring unplanned work requests closely to determine if there is a pattern of items requested in an effort to predict the needs before they disrupt the educational process. The total amount of work orders has increased by 6,171 compared to FY 2012.

In summary, the increase in work orders overall is directly related to growing portion of our school inventory reaching or exceeding 20 years of life. Prioritizing preventive maintenance and the related task ahead of unplanned work, requires shifting resources away from unplanned work, which is negatively affecting our customer service and eroding the credibility of the department. To further our preventive maintenance tasks and advancement to a more proactive maintenance organization, while not undervaluing the importance of unplanned work orders from our schools, greater resources are required.