

ADPSAFT Executive Briefing- The State of M&O

In response to an equity lawsuit ruling in 2005, the Department of Education mandated statewide facilities assessments and executed an agreement with SchoolDude to provide a solution for their more than 200 school districts to track maintenance work orders and preventive maintenance (PM) work.

There are currently 238 public school districts that are licensing over 850 SchoolDude solutions in Arkansas. All public schools leverage maintenance, preventive maintenance, and KPI platforms. Forty-three districts manage field trips, 30 manage IT incidents, 15 manage utility bills and energy conservation, and 13 manage inventory control with SchoolDude.

SchoolDude solutions are currently supporting approximately 475,000 students in 5,694 sites (school buildings) in Arkansas. 14,524 educators and support staff leverage the online requester portal to report and track repair requests. Maintenance teams completed over 190,773 repair requests and 212,501 PMs in FY 2015 alone.

Arkansas Public School Districts Success

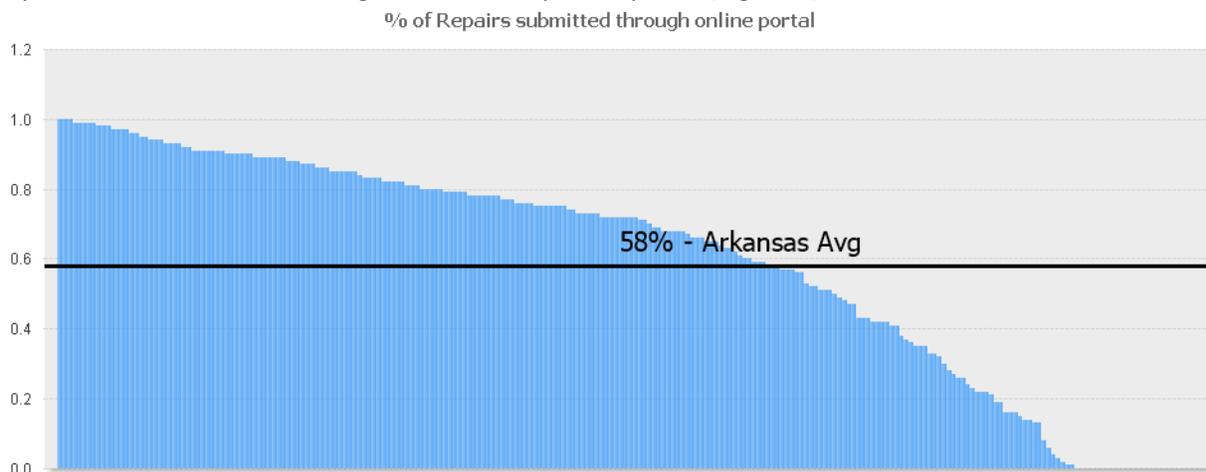
School districts become the benefactors of the following with a statewide agreement:

- 70% Total Cost of Ownership reduction from a Software as a Service (SaaS) suite of solutions
- Consistent and integrated operations interface for teachers and staff
- Ability to share “best practices” and “lessons learned” with peers throughout the state and nation

Streamlining M&O

Districts have streamlined their request to completion process by at least 15 minutes per work order by leveraging security roles, electronic routing, and automated email notifications. With approximately 400,000 work orders annually, that equates to 100,000 hours saved and approximately \$2M in efficiency gains statewide.

A significant component of streamlining the M&O repairs is including customers in the process and increasing transparency and communication. By leveraging an online requester portal, customers receive automatic status updates and can review a history of their requests. This reduces the number of calls to the Maintenance office and increases customer satisfaction. In FY 2015, 58% of all repair requests were submitted through an online requester portal (Figure 1).



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Figure 1

PM Program – an Ounce of Prevention

Not only are M&O teams in Arkansas providing a high level of customer service for repair requests, teams are proactively working to address building component needs with preventive and planned maintenance (PM). The average school building in Arkansas has 11 active PM schedules running to manage everything from HVAC to Roofing to

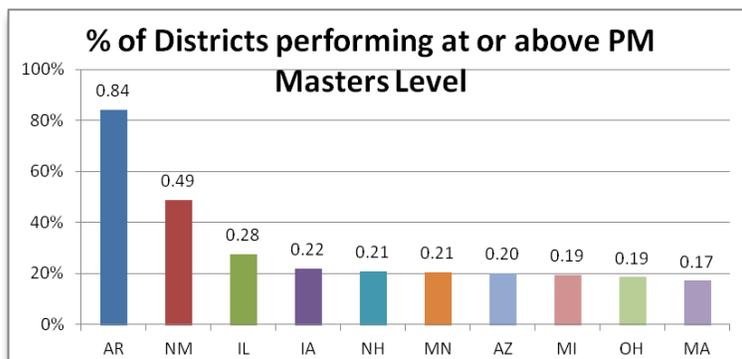


Figure 2

pro-active maintenance. Arkansas stands alone as a state in their dedication of resources to PM work, with 84% of all districts performing PM work at a Master's level, defined as >30% of all work performed as PM for 3+ years. (Figure 2)

The value of PM work to a facilities overall condition and the economic impact is overwhelming. While PM plays a significant role to the learning environment for students, there are also serious financial implications as well.

- **Fewer Failures** - A timely PM program usually uncovers problems before they become serious enough to cause equipment failures. Breakdowns can be reduced by 50 percent.
- **More Planned Work** - The timeliness of preventive maintenance inspections usually uncovers those major jobs that require planning. Sufficient lead time allows planning to be done.
- **Fewer Emergencies** - An effective PM program has every maintenance employee on the alert for things that cause problems. As a result, fewer problems that would cause an emergency situation escape detection. Emergency work can be reduced by half.
- **Reduced Overtime** - One of the largest contributing factors to overtime is the need to perform emergency work. A reduction in emergency work usually produces a corresponding decrease in overtime.
- **Extended Equipment Life** - PM invariably rewards its users by extending equipment life by as much as 20 percent and increasing dependability.
- **Better Use of Maintenance Personnel** - A job done under emergency conditions is 15 percent more costly in labor than a similar, well planned job. A maintenance department with a good PM program commits more staff to planned work. The result is more effective, productive use of this manpower.
- **Improved Equipment Operation** - Well-cared-for equipment is its own reward - it runs better.
- **Less Downtime** - Because the PM program can reduce emergency work, it follows that downtime can also be reduced.

(Tomlingson)

In 2011 SchoolDude conducted a national study on the financial impact of a PM program. We analyzed over 6,000 educational institutions and identified top performers in preventive maintenance. These PM Masters qualified by: Allocating 30% or more of their manpower to PM, completed 98% or more of their

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PM work, and sustained those levels for three years or more. Details of the methodology and results of the study can be found in the white paper – [An Ounce of Prevention is Worth a Pound of Cure](#).

What we found in the national study was a 50-65% reduction in the rate of emergency repairs and a 28-29% reduction in the average cost per work order. Emergency work is costly and disruptive, often requiring overtime, emergency shipping, expedited services, and disruptions to the classroom.

In Arkansas a similar trend emerged after the implementation of a statewide PM program began in earnest in 2007. As more resources were applied to planned and preventive work, the number of emergency repairs declined. As of 2015, emergency work orders dropped by 65% from 2007 levels. (Figure 3)

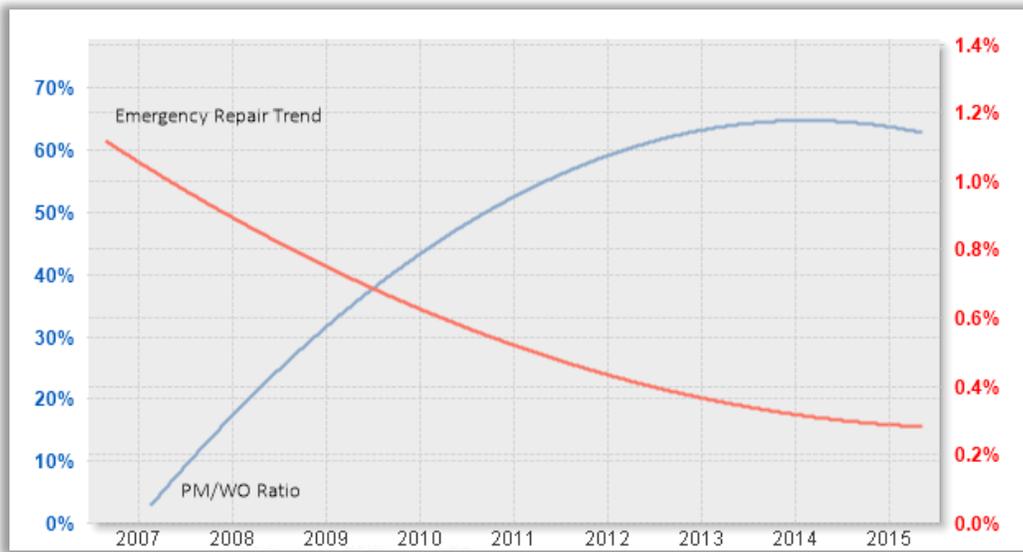


Figure 3

Not only have emergency work orders declined, the overall amount of repair requests have started to decline. In 2012, five years after implementing a PM program state wide, the total count of work orders flattened out. In 2014 we started to see a 2-3% reduction in the amount of reactive repair requests. (Figure 4)

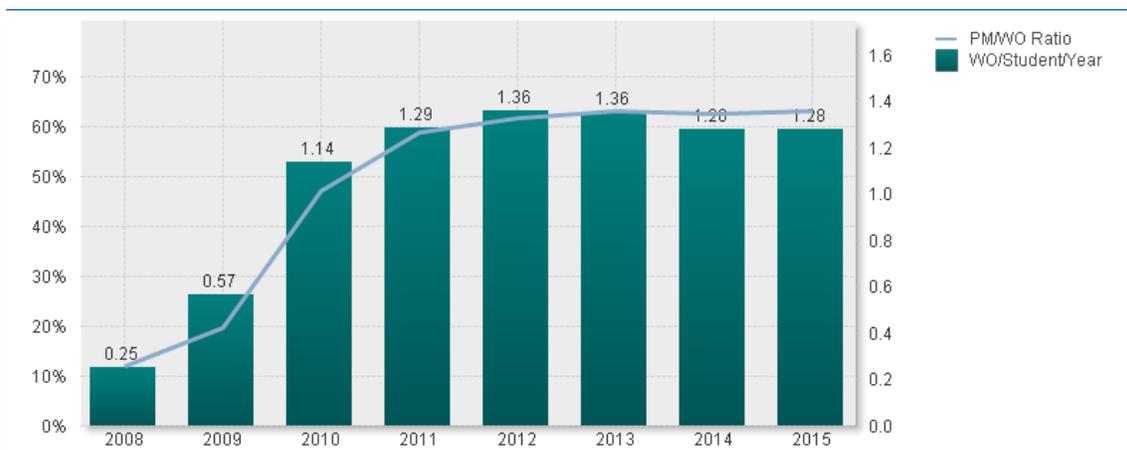


Figure 4

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State Comparisons with Dude Data

SchoolDude’s new platform streamlines solutions and creates the ability to easily collaborate—allowing schools to take full advantage of SchoolDude knowledge, data, and the key performance indicators (KPIs) from schools across the country. The platforms feature everything to boost efficiency, increase transparency, and be a responsible steward of your community’s resources.

This platform also puts SchoolDude in a unique position to evaluate operations data at a national view with our solutions in schools that serve nearly half of K-12 student population in the country. (Figure 5) By creating common KPIs that can be applied to every institution on the platform, we’ve created an environment where data can shine a spotlight on success.

The state comparison charts below use these KPIs to show which states are having success. While not all states have a partnership with SchoolDude, as the client map demonstrates (Figure 6), SchoolDude clients mirror the population of United States and there is significant penetration in every state.

| | |
|---|------------|
| Public K-12 using SchoolDude Maintenance solutions | 3,856 |
| Sum Enrollment | 25,170,411 |
| Average Enrollment | 6,528 |
| Min Enrollment | 12 |
| Max Enrollment | 256,472 |
| Median Enrollment | 3,049 |

Figure 5



Figure 6

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% of Total WOs as PMs

- Why is it important?
 - This metric evaluates how successful a school's PM program is. It measures how much M&O resources are dedicated to PM vs reactive work.
- What's included in the data?
 - Completed/closed work orders created from a PM schedule within the most recent 12 month window, divided by all completed/closed work orders created within the same 12 month window.
- Factors that influence this KPI
 - Implementation of PMDirect, resource allocation of PM work, staffing

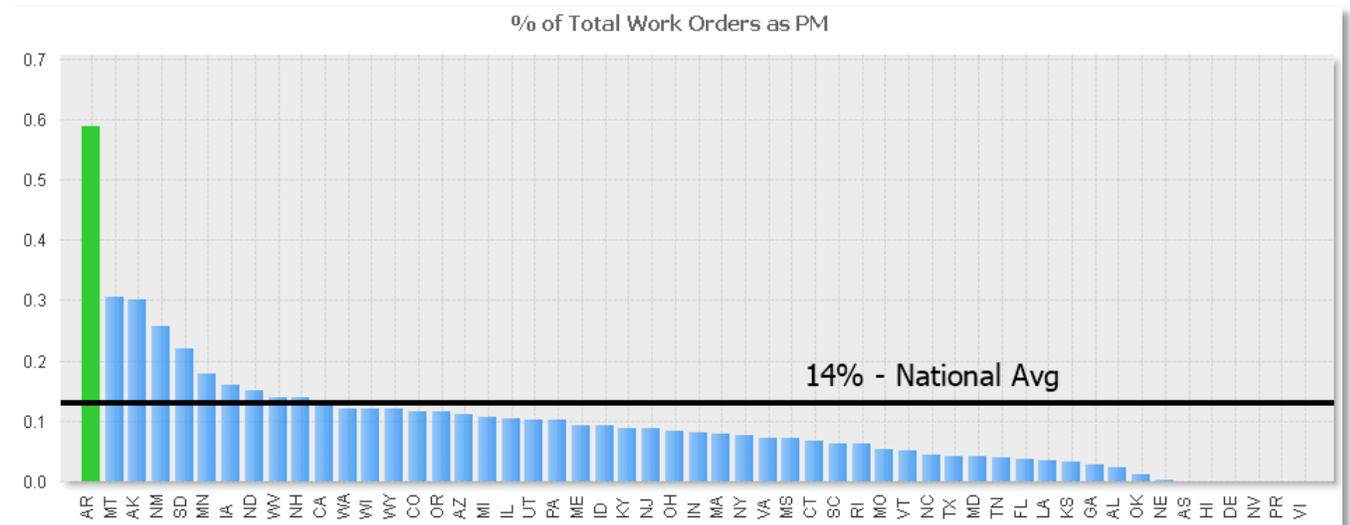


Figure 7

Arkansas leads the way in the % of total work as PM. The average Arkansas district performs about 58% of all work as PM, compared to the average for school districts nationally, which is 14%. We attribute this to the leadership and making PM a requirement in the state legislature. State partnerships in New Mexico and West Virginia also promote a strong PM program state wide. At a school level, we find that just getting a PM program up and running is a significant challenge. Most schools lack the resources, don't have the required information, and are simply too busy putting out fires to make PM a priority. Getting districts in the mindset of making PM a part of their culture is a monumental achievement for Arkansas districts.

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PMs Completed <=30 Days

- Why is it important?
 - This metric is a measurement of the responsiveness of PM work and an indicator of the overall health of your PM program.
- What's included in the data?
 - Work Orders created by a PM schedule within the most recent 12 month window with a complete/closed status, low, medium, or high priorities, and completion date minus created date <=31 days
- Factors that influence this KPI
 - Implementation of PM strategies including floating PM team and dedicated resources, staffing and technician participation.

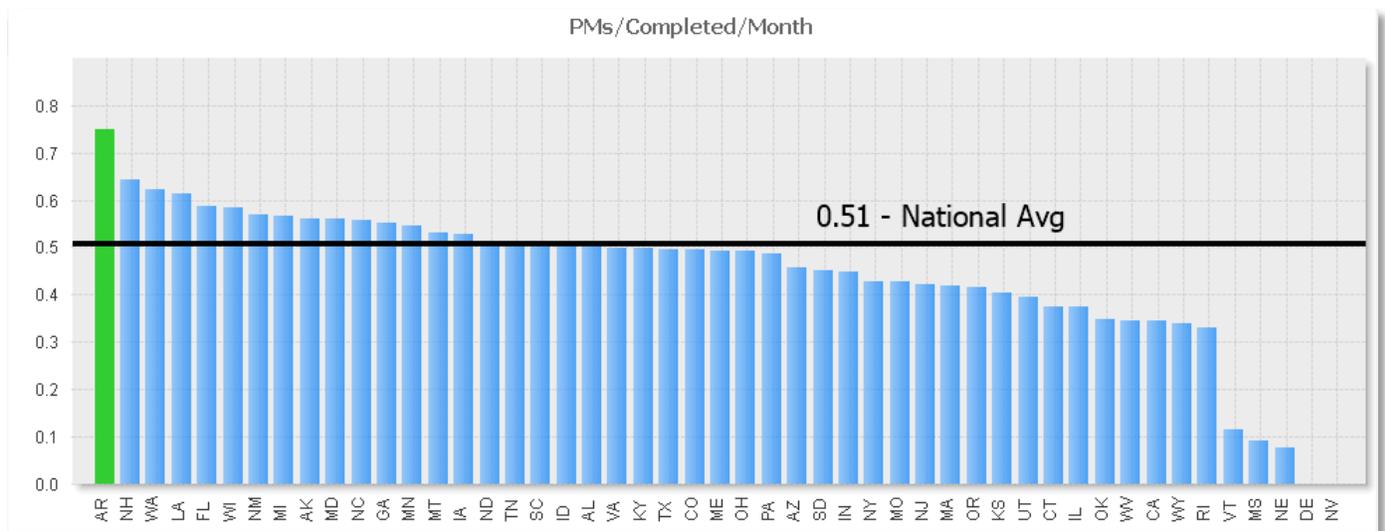


Figure 8

Arkansas completes about 75% of all PM work within 30 days or less, compared to the national average of 51%. This puts Arkansas at the top of the list of states for the PMs Completed <=30 Days KPI. Not only are PMs being generated, maintenance teams are finding ways to get these PMs completed within a reasonable time frame.

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Routine Work Completed \leq 7 days

- Why is it important?
 - This metric measures the efficiency of school's request to completion process.
- What's included in the data?
 - Work orders created in the most recent 12 month window with a completed/closed status, low, medium, or high priorities, not created by a PM schedule, and completion date minus created date \leq 7 days.
- Factors that influence this KPI
 - Technicians logging in to complete work vs dispatcher closing work out, PM program reducing reactive work load, staffing

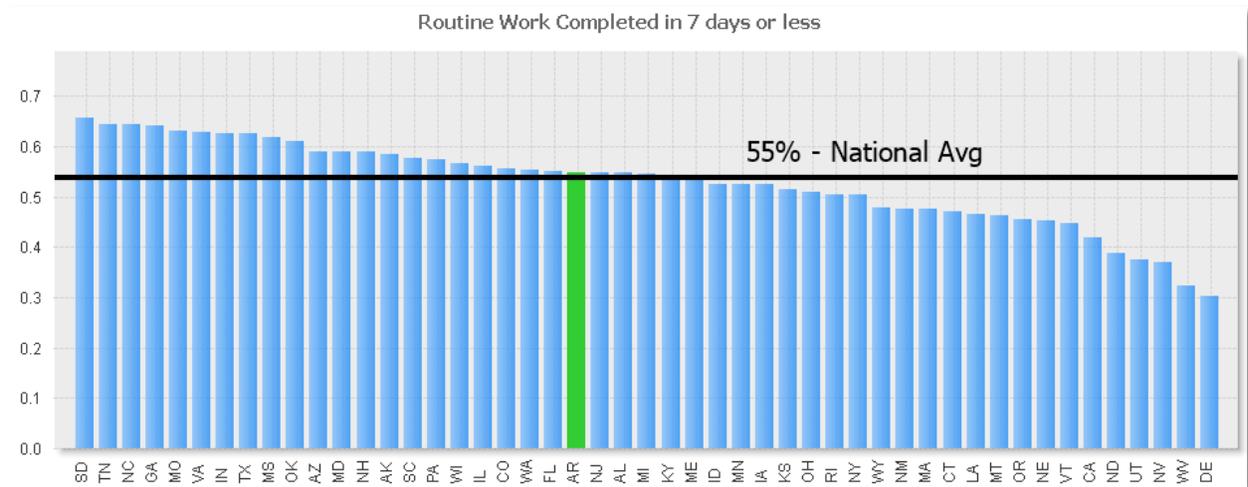


Figure 9

Arkansas completes about 55% of all routine repair requests within 7 days or less, which is right in line with the national average. This might be an area where there's an opportunity for improvement. There may be times when the work is completed, but not marked complete until an admin assistant logs it in SchoolDude. Empowering technicians with mobile technology and allowing them to process work would most likely improve this KPI.

