brightly

5 education operations management trends to know

A guide to helping institutions work smarter, not harder
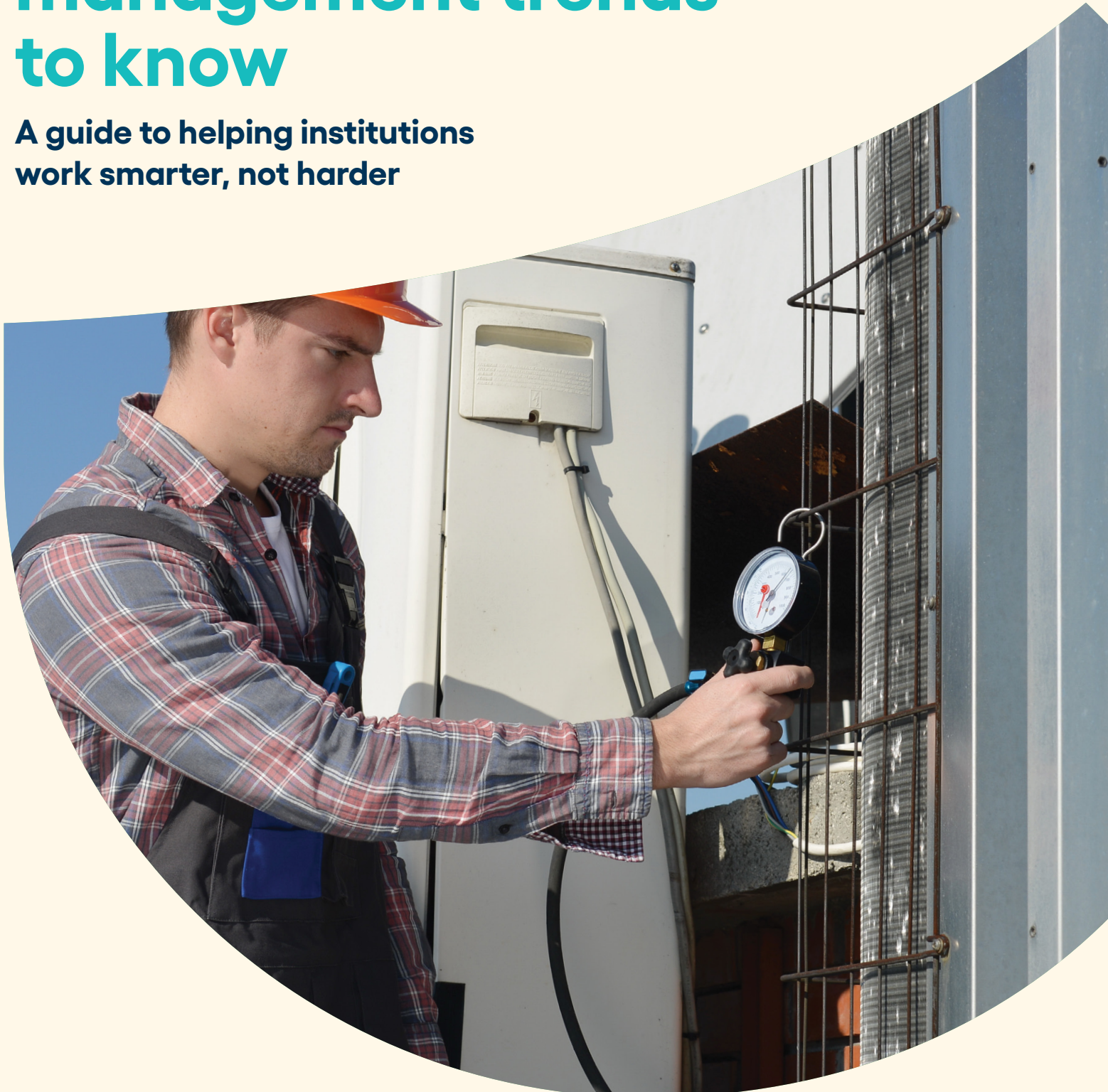
Table of Contents

5 education operations management trends to know

The education industry is buzzing with new ideas and strategies now more than ever, keeping operations managers on their toes as they juggle fine-tuning the old while implementing the new. While staying on top of change is a must to ensure we're providing the best for our students, one thing that remains the same year after year is the need to do more with less, and 2022 will be no different. While striving to make our schools and universities the best they can be, we also have to use time, money and manpower within our means. The good news is that many advancements have been made in the world of education software to help institutions work smarter, not harder.

In the years to come, you'll need to think one (or many) steps ahead of your operations so that you're controlling them, not the other way around. To begin, get to know the five operations management trends you're sure to see.

Chapter 1

Trend #1: Preventive and predictive maintenance

Predictive maintenance is no small trend. It's a game-changing approach to maintenance and facility management.

If you've been familiar with Brightly for any length of time, you know the phrase that lights up our faces: preventive maintenance (PM). It's not wise to put off to tomorrow what you can get done today, especially if putting it off means your facility's HVAC system breaks and your students are shivering, or a small leak turns into a big issue that closes your doors or cancels classes for a week.

PM is scheduled maintenance in an effort to keep all your assets functioning properly for as long as possible according to best practices. Not following this approach means operations teams are always in reactive mode, rushing to correct the latest breakdown.

What keeps schools and campuses from implementing a PM program, however, is that it takes some effort, time and money to get up and running, though the return on investment is more than worthwhile. When preventive maintenance isn't a priority, schools run into serious deferred maintenance (DM) issues. Putting off maintenance needs and capital projects until the time and budget are right can have major consequences that put schools in a much deeper hole than the efforts invested to get a PM program off the ground.

In the last five years, overdue maintenance needs have risen 18 percent, **equaling $6,462 per student**, and studies show our country currently faces approximately $500 billion in deferred maintenance. To say a prevention mindset is important to the future success of our schools is an understatement, especially if we want our buildings and equipment to last and our budget dollars to count. Deferred maintenance and being caught in the loop of reactive fixes isn't economical, nor is it what's best for our students.

The Perks of Prevention

The benefits of running an effective PM program are many, including:

We all know emergency, corrective maintenance takes more time, money, disruption and stress. To make the concept personal, imagine you have a nagging cavity. Will it take time to have the procedure and recuperate afterward? Yes. Will you have to pay money you'd rather not to have it taken care of? Definitely. Will it involve pain and stress? Of course. But, you'd take all three compared to that of a root canal, which is what you're in for if you keep putting off the initial fix.

Now apply that thinking to your building's roof.

50-60%
reduction in the rate of emergency work

28-39%
reduction in the average cost per work order

What's Around the Corner

While preventive maintenance is now a must for operational success, there's an even smarter way to work: predictive maintenance (PdM). Predictive maintenance is no small trend. It's a game-changing approach to maintenance and facility management. While it's important to have an effective PM system in place to effectively tackle the recurring tasks of your institution, wouldn't it be nice to have a system that could analyze your data and identify trends and issues you'll encounter down the road in advance?

Where PdM differs from PM is the level of intricacy and customization. While having a PM program is great, it does allow for a bit of guesswork. PdM on the other hand knows your assets so well it can see what's coming and communicate with you before the problem arises, helping you optimize each asset's performance according to its individual needs.

Where preventive maintenance says your roof should last 30 years as long as you perform these maintenance measures at this cadence, predictive maintenance responds to the actual condition of the roof versus its age or manual guidelines. It takes into account factors like the weather the roof has been exposed to and its work order history to calculate how the roof is truly holding up as opposed to relying on a blanketed time table. This prevents unnecessary time or money spent on maintenance that may not actually be needed at the time.

Smart Schools = Smart Operations

So how does PdM work? You may have heard the buzz around the IoT in the last few years, and for good reason. IoT stands for the Internet of Things, and it's a term used to refer to a web of connected devices, often communicating through the internet. It's how your refrigerator can report the news, how your Amazon Echo can order you a pizza and how your phone can turn on your home's security system.

How does that help schools and universities? The IoT enables us to accomplish tasks without human intervention. Time equals money, so does manpower, so being able to rely on smart technology means big operational upgrades. This is the foundation of PdM, equipment and other assets using smart technology to predict their own issues well before they occur.

That's the kind of data that empowers education leaders to make decisions that take their institutions from good to great and great to leading the pack.
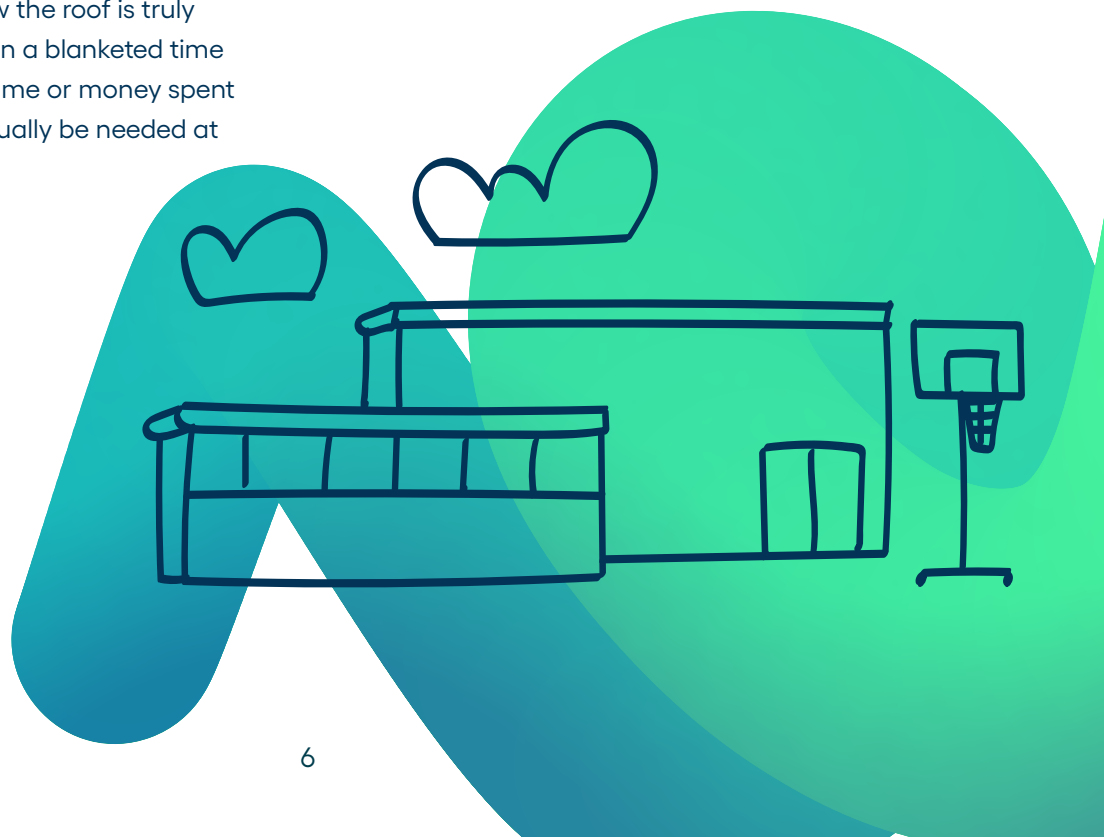
Chapter 2

Trend #2: Cost recovery

As with every other year, budget dollars aren't a resource to be wasted, and this is the year to implement a valuable cost recovery program if you haven't already. Schools shouldn't have to choose between losing money or losing community engagement, but allowing your community to use your gymnasium, auditorium, cafeteria and other spaces can be costly.

Events require utility usage, personnel, cleanup, supplies, etc., and **the average school district hosts 1,072 hours** of events outside of normal operating hours, which is like running an event from 3:30 PM to midnight every weekend of the calendar year. Brightly data estimates about $70 per student in costs to run these events and repair general wear and tear. However, in annual income, **the average school district recovers only $18.68 per student**.
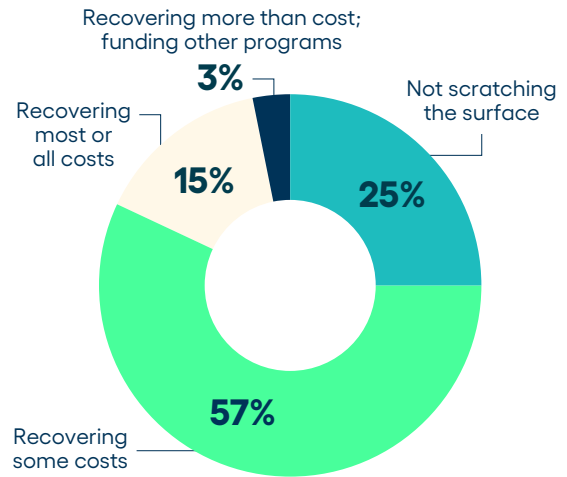
With no dollar to waste, it's important to not only have efficient **event management software** at the helm to help streamline your event process, but also an airtight cost recovery program. Here's how you can still promote events that require usage of your facilities without incurring an expensive mess.

Make the Case for Recovery

While the notion that because a high number of schools are publicly funded they should be available for public usage has merit, many don't realize the strain this puts on schools' already thin budgets or how this cost can take away from more important areas that affect students.

Collect the facts and figures to put a real number to how much of your institution's budget gets tied up in events. Consider usage of energy and other utilities, personnel to setup and oversee the event, custodial

How well are schools recovering campus-use costs?

Recovering more than cost; funding other programs
3%

Recovering most or all costs
15%

Not scratching the surface
25%

57%
Recovering some costs

cleanup, materials needed and fees associated with wear and tear of the facility space. Once you have the actual number, or ballpark range, use it to get buy-in from key decision makers who can share the impact of the budget leak with your district or university leaders. When the data is on paper, it's hard for leaders to deny there's an issue.

It doesn't hurt to also provide the evidence of how **other schools are seeing the rewards of cost recovery.**

Set a Fee Structure

Fee structures vary school to school and need to need, so it's necessary to make sure your fees are not only transparent but also true to costs for your school or campus in particular. There are many guides for establishing a fee structure, involving calculating operations, administrative and capital costs as they pertain to your basic district or campus data.

With costs in hand, consider setting a **tiered fee structure** for the various groups that use your facilities. For example, you'll likely want to approach fees for student organizations wanting to use school spaces after hours differently than a commercial company wanting to rent the gymnasium. You may also apply fees differently for groups like non-profits. See the breakdown below.

ESTABLISH A FEE STRUCTURE
Successful districts often establish simple fee structures for community groups using their facilities. For example:

Category 1: School Groups – no charge

Category 2: Non-Profit Groups – cost recovery fee, no rental charge

Category 3: Community Groups Outside of District Boundaries – modified commercial rental fee, custodial fee, recovery fee

Category 4: Commercial Groups – market rate change

Automate the Process

Easy money mistakes occur when your event management system isn't organized, causing dollars to fall through the cracks without you even realizing it. For full control, rely on automation to keep all plates spinning with ease. An automated program not only keeps everything in one easy-to-access place, it also prevents double-booking, responding to every email and phone call, missing payments, etc. Having an automated ally can also help you improve your event management by collecting and presenting **key performance data**.

Chapter 3

Trend #3: Energy savings

Energy conservation used to be most commonly a matter of values, with environmental friendliness leading the motivation for adhering to more sustainable practices. Today, however, energy conservation is also about implementing wise practices that save your budget in addition to the environment.

ENERGY CONSERVATION

Energy conservation used to be most commonly a matter of values, with environmental friendliness leading the motivation for adhering to more sustainable practices. Today, however, energy conservation is also about implementing wise practices that save your budget in addition to the environment.

Energy is consistently the second highest line item in a school's budget, the first being payroll. With such a high cost associated with something your institution can't go without, isn't it time to sit down and figure out how to manage it more efficiently?

Consider these statistics:

- The average K-12 school spends **$300 per student** in energy usage

- The average building wastes about **1/3** of its energy

- Institutions can save an average of **five percent annually** on energy simply by tracking utility bills

The effects of having or not having a solid energy management program in place are equally noticeable.

The 5 Cs of Energy
Here's what to keep in mind:
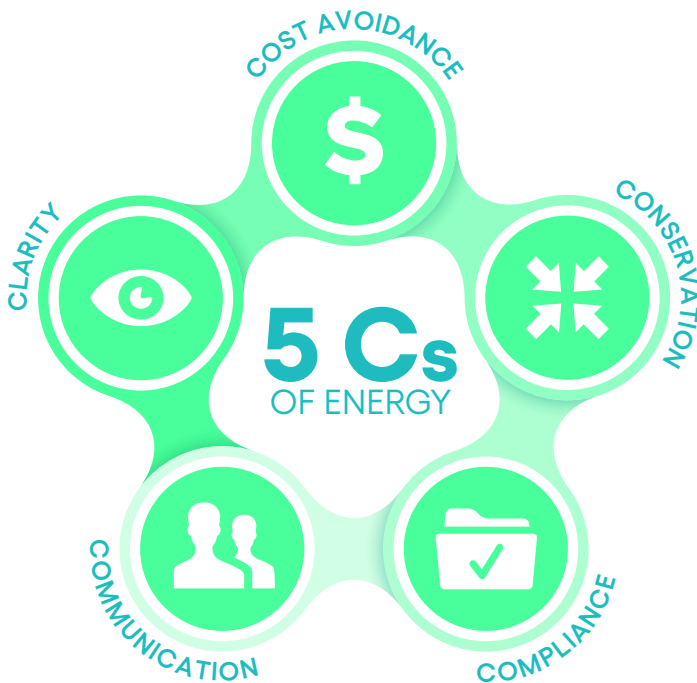
Clarity- You can't improve upon what you don't know, so understand the numbers behind your current energy approach. Tracking your bills, equipment and meters with a quality energy management system will help you stay on top of your consumption.

Cost Avoidance- Having data allows you to discover inefficiencies and fixable issues before they get worse. You'll never know where your program needs tightening up unless you track.

Conservation- Once you have full visibility into your bills and usage, you can discover new ways to conserve energy and cut costs. The money you save can then go toward other resources, like new staff or equipment.

Compliance- Be sure to stay informed and in alignment with government regulations and ordinances for energy.

Communication- Identifying issues is only half the battle. Having real-time data and reports will help communicate the value of your energy plans to key stakeholders and your community.

11

Getting Your Program Started

While getting a sustainable, energy efficiency program underway can be daunting, the rewards are certainly there. Many schools, like the Gresham-Barlow School District, Rogers Public Schools and Western Washington University, are already seeing substantial results from their new programs. Organizations like ENERGY STAR® and Duke Energy® are also helping schools make smarter decisions around energy.

If you're serious about starting your conservation program this year, consider our 12 steps for tackling an energy management program:

12 STEPS FOR TACKLING AN ENERGY MANAGEMENT PROGRAM	
STEP 1.	BECOME AN ENERGY MANAGER
STEP 2.	ESTABLISH BENCHMARKS
STEP 3.	DEVELOP THE PLAN AND POLICY
STEP 4.	DETERMINE MEASURABLE GOALS
STEP 5.	START TRACKING ENERGY STAR SCORES
STEP 6.	GET BUY-IN AND EXPOSURE
STEP 7.	MAKE IT RELEVANT AND TRANSPARENT
STEP 8.	FOCUS ON BEHAVIORAL CHANGES
STEP 9.	INVOLVE EVERYONE
STEP 10.	IMPLEMENT QUICK FIXES
STEP 11.	PLAN FOR THE LONG TERM
STEP 12.	CELEBRATE SUCCESSES, THEN REEVALUATE

Chapter 4
Trend #4: Healthy and safe schools

K-12 students spend roughly 35 hours a week in a school environment, and college students are in classrooms and labs approximately 20 to 30. With that much of their time spent in one setting, we owe it to students to make sure their atmosphere is healthy, safe, stimulating and customized to the needs of a variety of learners and personalities. Much research has been conducted showing a definite relationship between environmental factors and employee productivity and morale, but this concept has yet to be widely applied to schools.

We're all familiar with Maslow's hierarchy of needs and the philosophy that conveys how one's basic biological and physiological needs must be met before achieving the ability to thrive and perform creatively and intelligently at full potential. Students must feel fed, rested, well, safe and comfortable before they can truly engage intellectually, emotionally and socially.
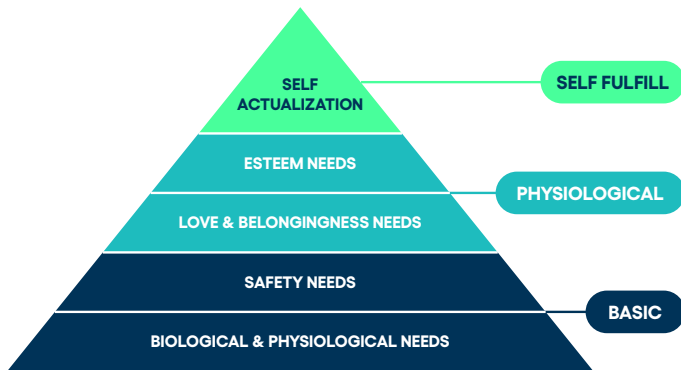
Students of all ages have the right to feel physically and emotionally comfortable and supported in the learning environment, and it shows when they don't. Studies show that **students score 5 to 17 times higher on tests when in high-functioning facilities**. Older facilities that experience issues like poor heating and ventilation, bad lighting, crowding and excessive noise bleed-over between rooms create a difficult atmosphere for students to get comfortable in, much less prosper. Children, teens and those with learning impairments struggle the most to acclimate to these environments.

Making adjustments to your school's atmosphere takes time, though, and often money, so don't feel like you have to upgrade everything at once. Start slow this year and create a plan to make gradual improvements over time, taking into account that by optimizing our first three trends, you're going a long way to improve this one as well. Consider addressing these four common areas schools struggle with first:

Lighting

Improper lighting can be a huge distraction and detriment to student learning. Lighting in the classroom should be high enough for students to see optimally but natural enough to be soothing. These may help:

- **Switch to LED bulbs.** Good LED bulbs can provide just as much light as fluorescents but are longer lasting (and more efficient). Certain types are also designed to mimic natural daylight, which is not only easier on the eyes but also triggers a sense of well-being and better cognition in the brain.

- **Apply window film.** If your classrooms receive glare-causing sunlight that has your students squinting, window films are an easy way to correct the issue.

Noise

Thin walls can result in noisy distractions from hallways and nearby rooms that disrupt students' ability to focus and hear. Here's what you can do:

- **Check your HVAC system.** Old or ill-functioning equipment can be a huge source of noise, so check to make sure yours is working for your students, not against them. Modern, energy-efficient models not only save on energy usage, but also can significantly reduce noise.

- **Check the efficiency of all your assets.** Your HVAC system may not be the only thing disrupting your classes. Vending machines, refrigeration, copiers, etc. create noise that carries, so look into either changing these settings or investing in more efficient models.

🌡️ Temperature

It's hard for anyone to focus and do their best when shivering or sweating due to poorly regulated temperatures, much less minors or those with sensitivities to atmosphere. Stuffy, warm rooms naturally lead to drowsy learners, and a chilly environment may keep students alert, but they'll also be uncomfortable and have trouble doing their best. If your school struggles with this, try:

- **Upgrading your HVAC.** Your HVAC system is a primary culprit for a lot of disruptions, but this one is your system's main job. If it's not keeping students warm in the winter and cool in the summer, it's definitely time to look into a new model that not only has the desired performance but is also more energy efficient. The costs you save in utilities just may be enough to level your return on investment.

- **Assessing your roof.** Yes, this is a big one, but it may be worth it if temperature is highly problematic for your facilities. Consider upgrading to a cool roof, which has high solar reflectance and reduces cooling load.

📚 Air Quality

The quality of your facilities' air is not something you want to understate. Poor air quality can have big consequences, including student and faculty illness, a rise in absenteeism and serious repercussions for students with asthma, allergies and other breathing difficulties. Look at:

- **Your HVAC and Vents.** Notice how often HVAC comes up? That's because it affects your school's environment more than you may realize, making it a hugely important asset to maintain well. If your systems aren't working properly, that weak performance could lead to issues like mold growth and leaks. The same goes for your vents. Dusty air circulation can also lead to student illness and absenteeism.

- **CO2 DCV options.** CO2 DCV systems provide outdoor air delivery into your building, letting fresh air circulate through your classrooms and other spaces.

Chapter 5

Trend #5: Business Intelligence

This is one of Brightly's favorite topics, because it's our mission to help schools and campuses work smarter and make more informed, data-driven decisions that set them and their students up for long-term success. It's also the glue that pulls our first four trends together and makes them possible. Business intelligence is your control center for working smarter. Brightly studies show that only a third of surveyed participants were familiar with business intelligence (BI) in recent years. However, two-thirds were experiencing an increasing demand for data analysis and reporting.

High-level benefits of maintaining BI are:

- In the spirit of "do more with less", BI will be non-negotiable moving forward to make sound decisions based on facts, not feelings

- It not only helps schools make better decisions, but makes conversations around decisions easier as well, because it's easy to argue about opinions but difficult to reason against data

- BI empowers education leaders by helping them get a clear picture of where they've been, where they are and where they're going

- For institutions with limited resources, this data allows leaders to do better for their schools without wasting budget or time

KPIs and Benchmarks

There are two main areas BI breaks down into: KPIs and benchmarks. These measurements work together to provide indisputable data.

Key performance indicators (KPIs) are metrics that education leaders can use to track factors they see as important to running their organization. This can refer to processes and/or functions that administrators see as necessary to reaching performance goals. Having this real-time data stored in one organized **dashboard** that's easy to access and navigate is critical when decision time comes, and today's software makes the data even more transparent by offering robust, customized performance reports with just a few clicks.
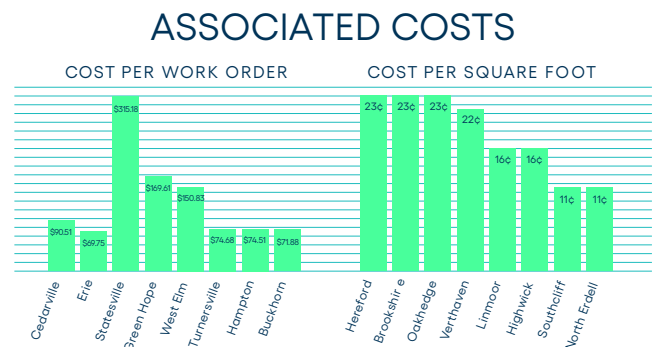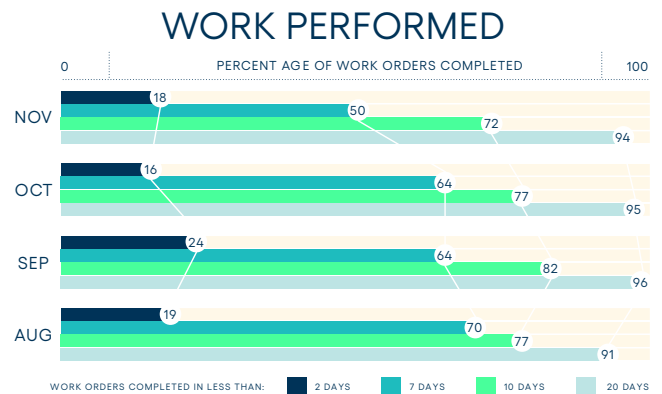
Benchmarking, or measuring performance against particular reference points, is valuable internally as well as externally. Having a black-and-white picture of your institution's facts and figures is invaluable, but when measured against those of other institutions, leaders can get highly useful insights into the direction they need to steer their operations.

Business Intelligence in Application

Used together, KPIs and benchmarks can help schools identify waste of all kinds and readjust as needed. Proper business intelligence is a game-changer because it's dynamic. Stagnant reporting doesn't always tell the truth, whereas real-time data at your fingertips will always provide the most accurate portrayal of your operations.

We commonly tell students to show their work, and BI is how education leaders can practice what they preach on the road to better schools. Organizations using a computerized maintenance management system (CMMS) to track and analyze their operational data report an average of a 20.1 percent reduction in equipment downtime and a 28.3 percent increase in productivity, enlisting comprehensive dashboards to get live looks at items like work performed and associated costs.

BI also proves integral for justifying decisions like new hires, retrofitting projects, repairing items versus replacing them and more, as well as storing easy-to-locate information on things like equipment history and maintenance scheduling.

WORK PERFORMED

PERCENT AGE OF WORK ORDERS COMPLETED

	0				100
NOV	18	50	72		94
OCT	16	64	77		95
SEP	24	64	82		96
AUG	19	70	77		91

WORK ORDERS COMPLETED IN LESS THAN: ■ 2 DAYS ■ 7 DAYS ■ 10 DAYS ■ 20 DAYS

ASSOCIATED COSTS

COST PER WORK ORDER

Cedarville	$90.51
Erie	$69.75
Statesville	$315.18
Green Hope	$169.61
West Elm	$150.83
Turnersville	$74.68
Hampton	$74.51
Buckhorn	$71.88

COST PER SQUARE FOOT

Hereford	23¢
Brookshire	23¢
Oakhedge	23¢
Verthaven	22¢
Linmoor	16¢
Highwick	16¢
Southcliff	11¢
North Erdell	11¢

Chapter 6

CONCLUSION:
New opportunities to improve within every size and budget

There's a great energy stirring in the education industry, and 2022 is already predicted to be an exciting year for moving the needle. With advancements in education software and new opportunities to improve within every size and budget, this can be the year you get full control of your operations and embark on a path that leads your institution and students to reach their fullest potential.

Aim high this year, but do it smartly, with robust, data-centric work systems customized to your needs so you don't waste a dollar or an opportunity to achieve more. We at Brightly look forward to seeing the progress educational institutions make across these five areas this year, and we're honored to be an ally in helping schools work smarter and reach new levels of success in 2018.

About Brightly Software

Brightly, the global leader in intelligent asset management solutions, enables organizations to transform the performance of their assets. Brightly's sophisticated cloud-based platform leverages more than 20 years of data to deliver predictive insights that help users through the key phases of the entire asset lifecycle. More than 12,000 clients of every size worldwide depend on Brightly's complete suite of intuitive software – including CMMS, EAM, Strategic Asset Management, IoT Remote Monitoring, Sustainability and Community Engagement. Paired with award-winning training, support and consulting services, Brightly helps light the way to a bright future with smarter assets and sustainable communities. For more information, visit **brightlysoftware.com**

866.455.3833   /   info@brightlysoftware.com   /   brightlysoftware.com