# 6 Ways Digital Food Safety Management Eases Labor Shortages

With fully 75% of operators across foodservice sectors experiencing staffing gaps of more than 10% below necessary levels, it's never been more urgent to find creative ways to offset labor supply and management issues.[i]

Technology can help. "Technology is increasingly a differentiator between the winners and losers," says Ann Golladay, senior director of content at Datassential, a data analytics firm that works with the foodservice industry.[ii] That's because digital platforms for managing food safety, quality, and operational execution can make foodservice personnel dramatically more efficient in their roles. As a result, foodservice organizations can get more done in less time with fewer people.
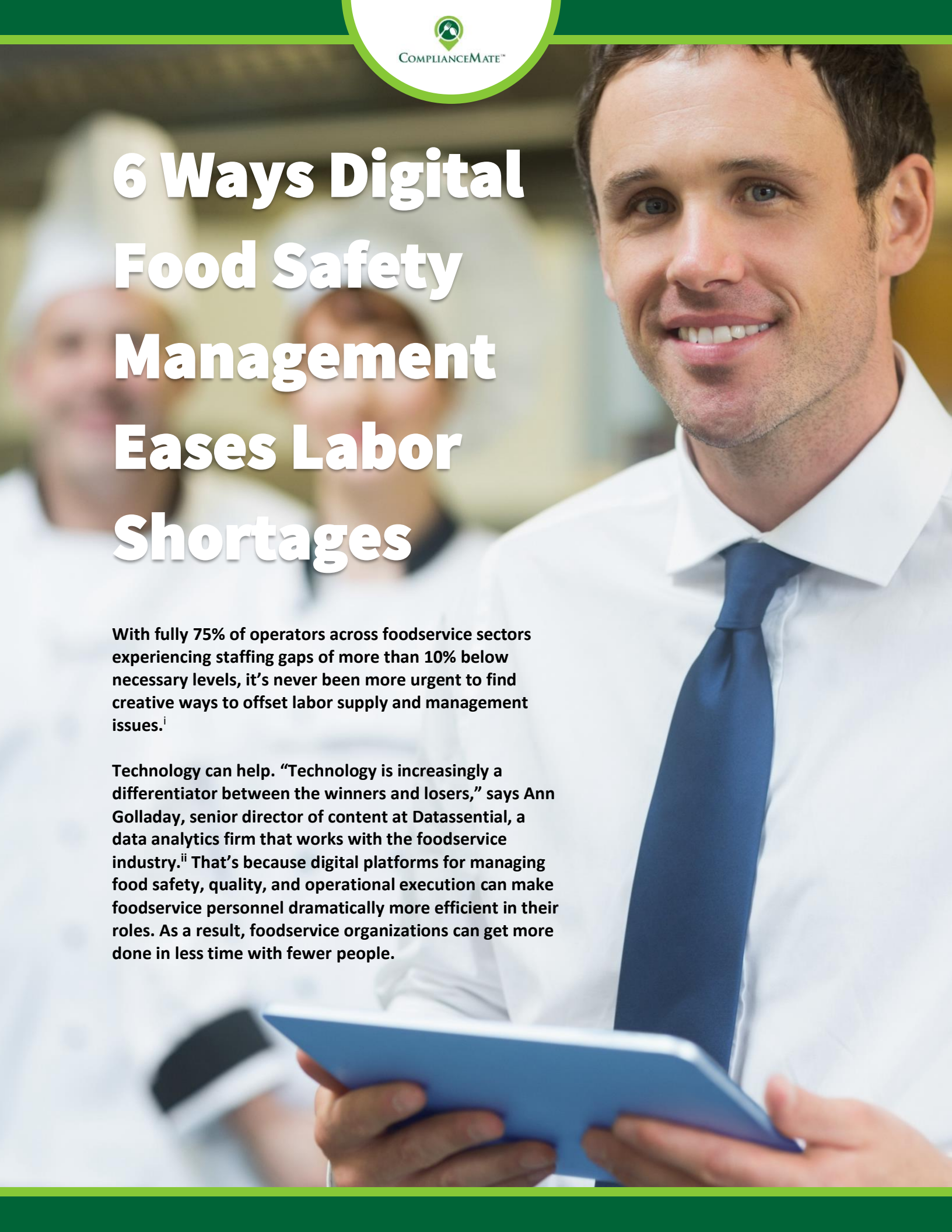
Using Food Safety Technology to Counter Labor Shortages

Labor supply was a serious problem for foodservice operations even prior to the pandemic. "**Even in normal times, without a recession or pandemic, the top challenge for restaurant operations has been the recruiting and retention of labor**," Hudson Riehle, executive vice president at the National Restaurant Association, told *USA Today* early in the pandemic.[iii] Worse, the labor issue extends beyond just restaurants; the same issues bedevil almost all foodservice operations in all sectors.

Now, quit rates in the hospitality sector are hitting all-time highs, taking a serious problem and turning it into a legitimate labor crisis. For example, *Nation's Restaurant News* **reports that full-service restaurants have been operating with 6.2 fewer employees in the back of the house and 2.8 fewer in the front of the house since the pandemic than before.**[iv]

Complicating matters, it's not just the pandemic affecting labor supply, nor is it just restaurants that are affected. Other macro trends, like Baby Boomers aging out of the workforce, are also major contributing factors. That means labor supply precarity is likely to outlast even the pandemic and will affect all types of foodservice operations.[v]

To solve the labor crunch, foodservice leaders must figure out ways to make the most of the labor supply that is available to them. Advanced IoT (Internet of Things) technology is key to helping foodservice operations to manage food safety and operations with fewer personnel and get more productivity and value out of remaining workers.

That's because a digital approach to kitchen management, food safety, quality assurance, and operations can simultaneously make remaining employees more efficient with their time, improve overall labor productivity and performance, and help owners and executives spot and address labor-related problems before they spiral into crises.

Automation is a major engine in driving these labor benefits.

According to consultancy group McKinsey & Company**, one-third of the tasks performed in two-thirds of current jobs can be automated, resulting in labor savings of at least 20%** (and potentially more – see page 6 for a comprehensive breakdown of potential cost savings).[vi]

If foodservice could reduce human labor by even a portion of that, it could significantly ease the pinch of the labor supply problem. Machines and automation don't replace people *per se*, but they definitely make existing staff much more effective by relieving them of repetitive obligations and freeing them to focus on the tasks only people can do. Ultimately, it's all about getting the most efficiency and value out of the workers you *do* have, and that's exactly what kitchen automation does.

1. **Eliminate human effort where it is not strictly required.**

2. **Speed up manual tasks so they can be completed faster.**

3. **Make it easier to manage the workforce.**

4. **Produce better outcomes with existing staff.**

5. **Spot staffing issues before they become crises.**

6. **Understand how labor savings translate into cost reductions.**

Temperature Monitoring	Digital Checklists
• Wireless receivers matched to sensors in hot and/or cold-holding units log temperature and humidity data. • They transmit real-time data to the cloud every five minutes. • Users can view sensor data from any web-enabled device. • Any time temperatures go out of range, automated phone, text and/or email alerts go out to management, regional leaders and others.	• Digital checklists enable staff to work quickly through safety, operational and quality checks. • Checklists can be customized nationwide, between regions, and down to individual locations. • Anomalies or exceptions can automatically trigger alerts to multiple levels within the organization. • The smart app analyzes inputs for anomalies and provides controls to protect against fraudulent or mistaken entries.

1

Eliminate human effort where it is not strictly required.

"We realized we didn't need to deploy as many people," says Jean Edsall, the Director of Food Safety Programs at Compass Group North America after adopting the ComplianceMate™ digital food safety system.[vii] This is the first and most direct way that IoT technology can ease labor shortages: by diminishing the need for human labor in the first place.

Edsall's company had been contracted to provide meals for tens of thousands of people during a ten-day event. They adhere to stringent quality and safety standards, which necessitated *a lot* of labor monitoring and maintaining temperature-controlled equipment. By installing automated remote sensors

that would log and upload temperatures to the cloud every five minutes, they could monitor temps even more frequently with zero FTEs tasked to that job.

As a result, they needed fewer staff overall.

Why use valuable human labor for tasks like these when you can just have a sensor do it for you? Over the course of a day, this can return substantial time to managers and individual employees while enabling the operation to maintain – or even improve – safety, quality, and branding. In turn, the organization can refocus its workers on core, revenue-building work.

2

Speed up manual tasks so they can be completed faster.

A digitized process won't always eliminate human work, but it can often **streamline** it – which means operations can enable existing staff to get more done in the same or less time, or to get the same tasks done with fewer staff.

For example, digital versions of food safety, quality, or other operational checklists can often reduce time spent by half or more. One chain of theme restaurants with nearly 300 locations worldwide digitized their line checks and **collapsed a 75- to 90-minute daily process into just 45 minutes per day** – while simultaneously incorporating more checks.

That's because pencil/paper logs take 20-30 seconds per food item being recorded. A digital solution might take as little as 5 seconds per food item. In aggregate, the time savings may only be a few minutes per check, but aggregated multiple times a day, across all locations, and the time and labor savings add up quickly (see page 6 to see how much cost savings can accrue).

They're not the only ones who've reaped time savings from digital checklists. A California-based foodservice organization with over 200 locations also found digital checklists shaved time off their normal safety and quality reviews. "**That builds up over time**," says the General Manager of their Honolulu location. "**During the shift, that can be impactful. You can fly through a checklist with in 10 minutes**."

Altogether, a digital approach frees staff to continue meeting rigorous safety and quality standards *and* still have more time to spend time in other areas where the operation may be shorthanded.

3

Make it easier to manage the workforce.

Ensuring that workers do what they're supposed to do is an ongoing challenge. Brands can develop all the safety and quality protocols they want, but if their workers don't actually put them into **practice,** they won't mean anything.

Thus, a tool that can verify in real-time that all checks, protocols, and practices are being followed appropriately – and *trigger corrective action* if not – can help leaders to spend less time monitoring staff compliance and better prioritize their own time.

"**It tells us, 'Hey, your checklist is not done,'**" says the Kitchen Manager at the Honolulu restaurant. "**It gives us a chance to follow up in a timely way**."

For example, a digital solution can incorporate designated corrective actions when a temperature or other check falls outside of specified thresholds. If the soup doesn't temp right, the app itself can recommend remediation measures like simply stirring to redistribute the heat. That saves time from tracking down the knowledge needed to fix the problem or, worse, requiring time from managers to handle simple oversight.

Failing that, the system itself can **automatically alert** managers and executives if any exceptions are encountered, e.g., a cleaning procedure not completed on time, a checklist not submitted within a certain time window, etc. – to ensure nothing gets missed. In turn, that frees leaders from having to waste unnecessary time monitoring or, worse, micromanaging employees, while still having confidence that food safety and quality processes are being correctly followed.

4
Produce better outcomes with existing staff.

5
Spot staffing issues before they become crises.

Although our focus here is about using technology to alleviate labor pains, **we shouldn't forget the core promise of the technology: making sure your kitchens more reliably produce safer and better food**. Over a third (35%) of foods are cooled more slowly than published safety guidelines, says a study from the U.S. Centers for Disease Control and Prevention's Environmental Health Specialists Network. Those foods may potentially be exposed to the danger zone of temperatures between 40 °F and 140 °F long enough for bacteria and other pathogens to flourish. Worse, the study found that foods are twice as likely to cool more slowly than recommended guidelines when workers don't actively monitor the cooling process.

> "The result is that [foodservice operations] can still expect to maintain rigorous safety and quality standards even with fewer workers in the kitchen."

However, that requires active attention that kitchen workers may not have to spare, especially when the kitchen is short-staffed. Second, workers may think they're keeping food under safe conditions even when the reality is different. Again, active monitoring is required, and again, that may be prohibitively difficult under current labor conditions.

Technology like **automated sensors and wireless probes** can thus make workers more effective in their roles because they can supplement human attention. Workers don't need to pay attention if remote sensors are watching the process and generating alerts any time something exceeds thresholds. **The result is that foodservice operations can still expect maintain rigorous safety and quality standards even with fewer workers.**

The decisions that C- and VP-level executives must make rely on an accurate understanding of the state of safety practices within their organization. If they aren't actively involved in food safety and infection prevention processes, and they lack relevant data, they may end up making poor business decisions.

That bears repeating: you can't make the right calls if you have too little insight into what's happening in your stores.

Food safety technology that can make usable **data easily accessible to leaders and executives.** One key component: the technology should allow for above-unit visibility that gives executives access data about (1) the entire organization at once, (2) specific regions, and (3) down to individual location or workstation. The system must also be able to protect against nervous frontline workers who might try to obscure food safety lapses.

In other words, the right tools can create a direct pipeline of usable data from the frontlines to top-line decision-makers, while ensuring workers who might try to hide or fudge data can't do so.

With good data in hand, organizational leaders have **transparent visibility** into what's happening in their stores. They can then pinpoint problem areas down to the individual. That means leaders can know when and where to pursue re-training and behavioral correction, or spot problem trends and re-allocate resources *before* these situations turn into outright labor crises.

Labor savings means cost savings.

All the ways in which technology reduces labor will also directly benefit the bottom-line. Automating certain food safety functions means brands can stop paying for the labor required to complete them. In turn, that can either **reduce the overall FTEs required** to staff the operation. If there's a shortage of qualified staff, the pinch won't be as painful, or they'll be able to free hours of time from workers and managers to focus on revenue-generating activities and customer service efforts.

These savings can aggregate faster than most operations probably realize. The costs of a paper checklist process probably seem innocuous – just a few minutes a few times throughout the day. But kitchen staff using a digital checklist via tablet can usually complete the process in just 2 or 3 minutes. Most operations can conservatively expect to reduce time spent on checklists by at least half.

For a location with multiple line checks throughout the day, that returns over an hour back to the store or kitchen manager's day, every day. For the average kitchen manager earning $26/hour (the median hourly wage of that role) and spending 90 minutes a day completing checklists at a single location, the operation will end up paying over $14,000 a year per store just in the manger's time alone. Add more tasks that can be digitized and automated, and scale across an entire operation, and the cost savings can soar – as the table below illustrates.

In the end, the ability to reduce total FTEs needed and to reallocate existing staff away from critical-but-repetitive tasks toward customer-facing, revenue-generating activities is pivotal to managing labor supply issues successfully. **The right technology can help brands stay on top of their labor needs and manage any labor crunch.**

Estimated Checklist Labor Savings Calculation
Conservatively assuming 50% labor reduction

Step 1	Step 2	Step 3	Step 4	Step 5	Step 6
Median Kitchen Manager's Hourly Pay	Time to Complete 1 Avg. Checklist (Hours/Day)	Number of Checklists Per Day Across Organization	Time to Complete All Checklists (Hours/Month)	Total Cost of Labor for Checklists Per Month	50% Labor Reduction, Annualized
$26/hour[viii]	0.50 hours	40	600 hours	$15,600	**$93,600 Saved**

About ComplianceMate

Telephone:
Office: (404) 569-0419
Sales: (678) 346-0380

Online:
info@ComplianceMate.com
https://ComplianceMate.com

ComplianceMate™ provides the world's leading patented temperature sensor software system used to ensure regulatory compliance and operational efficiencies. The principal product offering has streamlined HACCP compliance checklists and cooler monitoring for all types of foodservice and related industries across multiple continents. With wireless temperature sensors and automated workflows, customers can view the certified data to make evidence-based decisions about operational processes. Organizations achieve improved audit scores and see a rapid ROI in just months.

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