

Why Some Training Programs Succeed Where Others Fail:

Results & Analysis from the Global Food Safety Training Survey



Table of Contents

Executive Summary	4
Perceptions and Realities: Contradictions in Food Safety Training Evaluations	6
The Biggest Challenges in Food Safety Training	12
Benchmark Metrics: Current Trends and Characteristics of Food Safety Training Programs	17
Best Practices that Yield Better Outcomes	24
» <i>How to Beat the Time Crunch for Scheduling Training</i>	
» <i>How to Ensure Employees Follow Food Safety Protocols</i>	
» <i>How to Keep Frontline Employees Highly Motivated to Do Their Job Well</i>	
» <i>How to Prevent Problems through Knowledgeable, Confident Frontline Employees</i>	
Conclusion: Recommendations Based on Data Analysis	42
Appendix & Footnotes	48

All data in this report, unless otherwise cited, is sourced directly from the 2022 Global Food Safety Training Survey. Details on survey methodology, delivery, and demographics are available in the **Appendix & Footnotes** of this report.

The Global Food Safety Training Survey is sponsored by Intertek Alchemy and Campden BRI, in partnership with BRCGS, BSI, Cultivate, SGS, Safe Quality Food Institute, and TSI. The analysis and conclusions reflect the perspective of Intertek Alchemy and not necessarily the other study sponsors.



Executive Summary

The *Global Food Safety Training Survey* is the most comprehensive research and assessment of food safety training practices in food processing and manufacturing facilities.

The 2022 survey received 2,118 individual responses from industry professionals. Factoring in those who identified their answers as representing the multiple facilities they manage, the 2022 survey presents **data from over 3,000 food production facilities worldwide.**

Since 2013, we have surveyed the industry on their food safety training challenges and program characteristics. In each survey, the majority of respondents reported that, regardless of training efforts, they still had employees not following their food safety programs.

This year, the data was analyzed and cross tabulated in order to pinpoint what those minority of respondents were doing to achieve compliant employee behaviors. **This analysis clearly identifies the specific practices and characteristics that enable some organizations to drive better results from their food safety training efforts** — practices that other companies can implement to drive these same positive employee behaviors.

This report starts with a high-level inspection on the state of food safety training, which presents a series of contradictory findings. For example, only 12% of companies¹ feel they are unable to provide the food safety training needed to drive appropriate, consistent food safety behaviors. Yet, 60% of those same companies say that, despite all that training they provide, they still have employees that do not follow their food safety programs on the floor.

The report highlights the shared challenges organizations face and the measures some have successfully utilized to overcome the challenges. By analyzing the data, this report clears up the contradictions to identify best practices that yield to better outcomes.

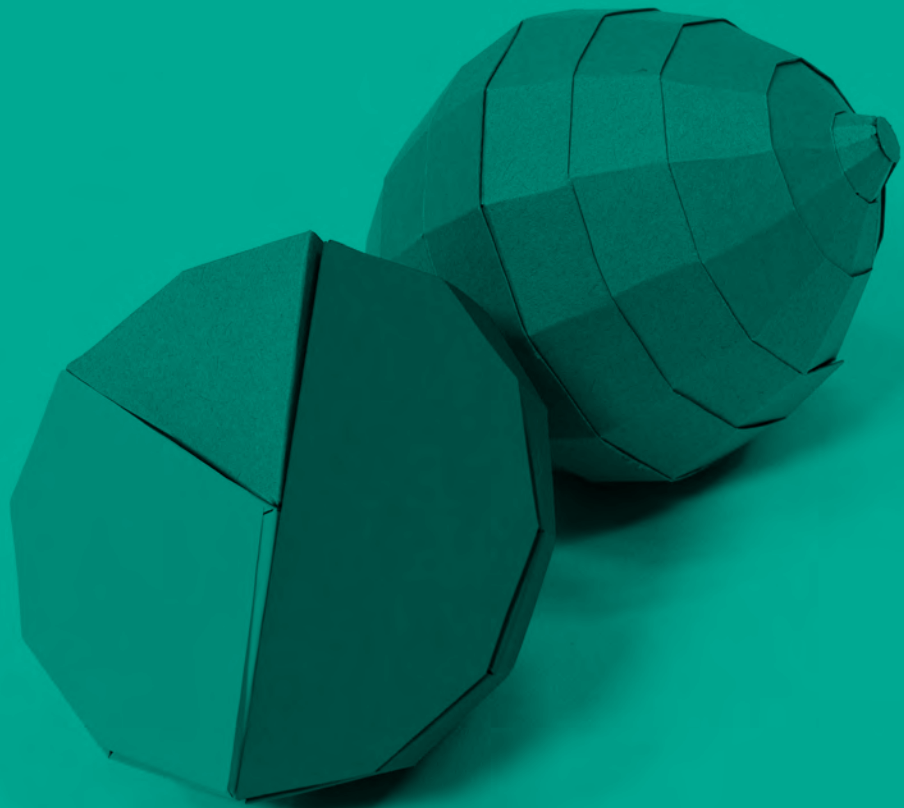
Among the many key findings in this report, you will learn:

- The quantity of food safety training necessary to avoid the “danger zone” leading to greater risk of food safety incidents.
- How tailoring training to specific job roles increases the likelihood from 22% to 82% that a frontline employee will halt production when necessary to prevent a food safety incident.
- Highly motivated employees are more than 2X more likely to consistently adhere to food safety protocols on the floor.
- The five action items organizations can take to keep employees highly motivated and improve food safety outcomes. For example, 78% of companies with a mature upskilling program have highly motivated employees, compared to 43% for companies without an upskilling program.

This preview barely scratches the surface of the important findings in this report. The following pages provide over 30 charts to illustrate the best practices and key actions you can take that lead to improved food safety performance.

Perceptions and Realities

*Contradictions in Food Safety
Training Evaluations*



The 2022 Global Food Safety Training Survey highlights a number of success stories. For good reason. Food manufacturing companies have worked tirelessly for decades to improve food safety measures. Their efforts and significant achievements should be applauded.

It is no small feat that roughly 7.7 *trillion* meals are consumed in a year safely without incident, especially as the world's population increasingly sources its meals from food produced in manufacturing facilities. But here's the thing with food safety: That still leaves 600 million cases of foodborne illness annually. In any other practice, in any other industry, a 99.992% success rate would be quite the amazing feat. But here's the other thing about food safety: 420,000 of those illnesses resulted in deaths. Thus, food safety and training professionals view the challenge less as improving by a decimal point, and more as avoiding 420,000 unnecessary deaths.²

So, with that in mind, let's dive in.

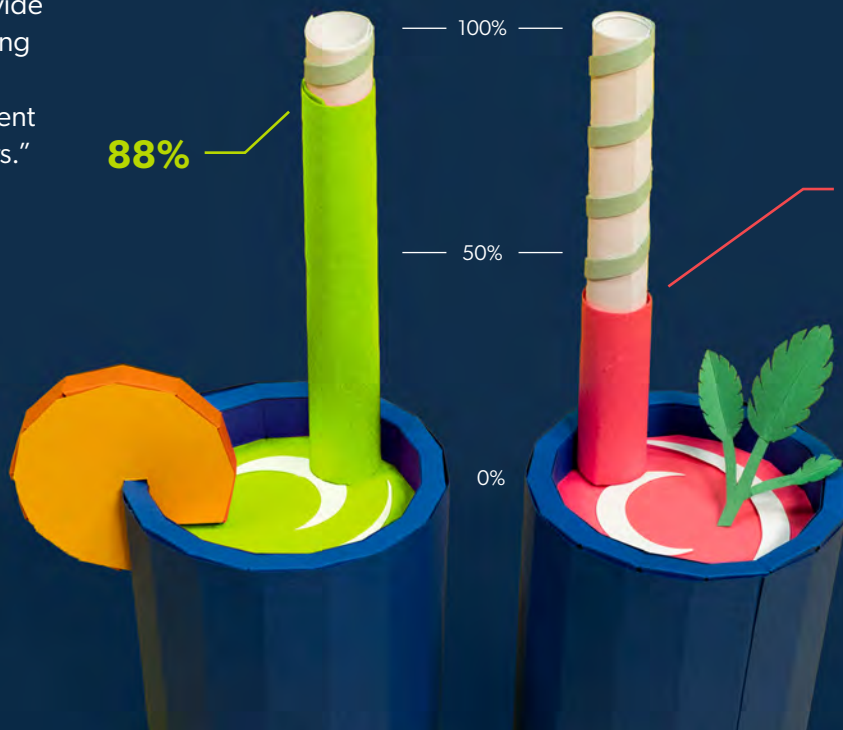
Starting on a positive note, 88% of survey-takers responded affirmatively when asked if "based on current management support, we are able to provide the needed food safety training to drive appropriate, consistent food safety behaviors?" However, that same group of people responded 60% in the affirmative when asked "despite our efforts in employee food safety training, we still have employees not following our food safety program on the floor." [Figure 1]

FIGURE 1

Disparity in Perception and Reality

"We are able to provide the food safety training necessary to drive appropriate, consistent food safety behaviors."

88%



"Our employees always follow our food safety program on the plant floor."

This of course means, even though nearly 90% of companies have confidence in their food safety training program, only 40% of can attest their employees always follow said training on the floor.

On another positive note, 81% of companies understand what it takes to build and sustain a strong food safety culture [Figure 2]. And 40% of companies use a food safety culture audit/assessment to measure sustained food safety behaviors [Figure 3]. Both of these are improvements from the previous survey, continuing the trend of food safety culture's rise, first highlighted in the 2020 Global Food Safety Training Survey.

FIGURE 2

“We understand what is meant by ‘food safety culture’ and what it takes to build/sustain a strong food safety culture.”

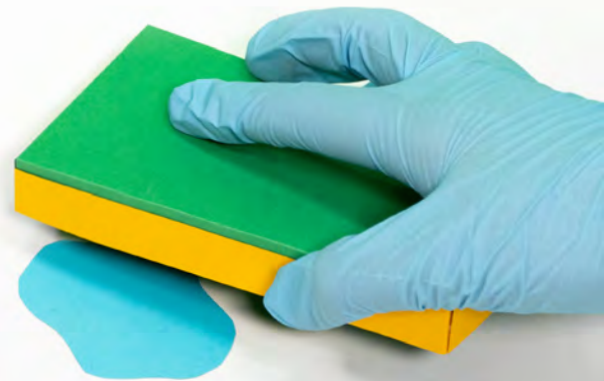
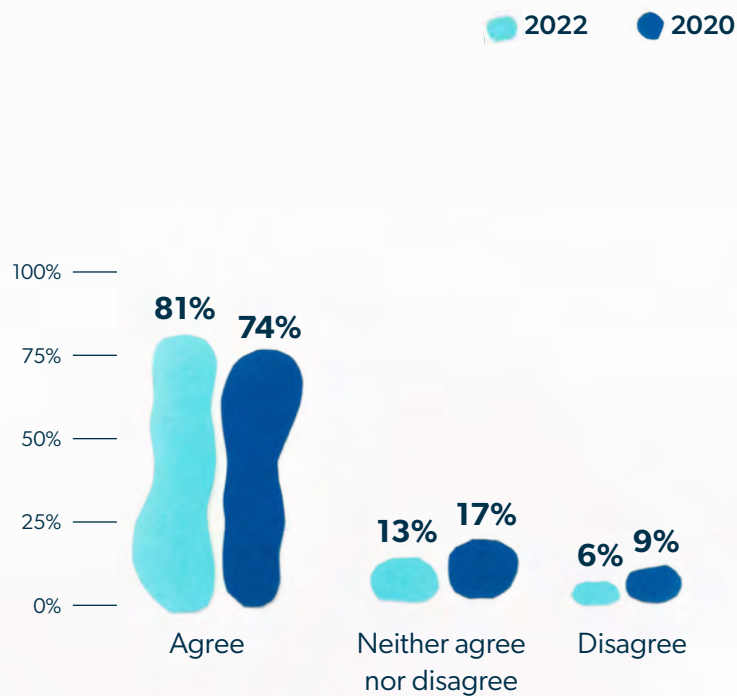


FIGURE 3

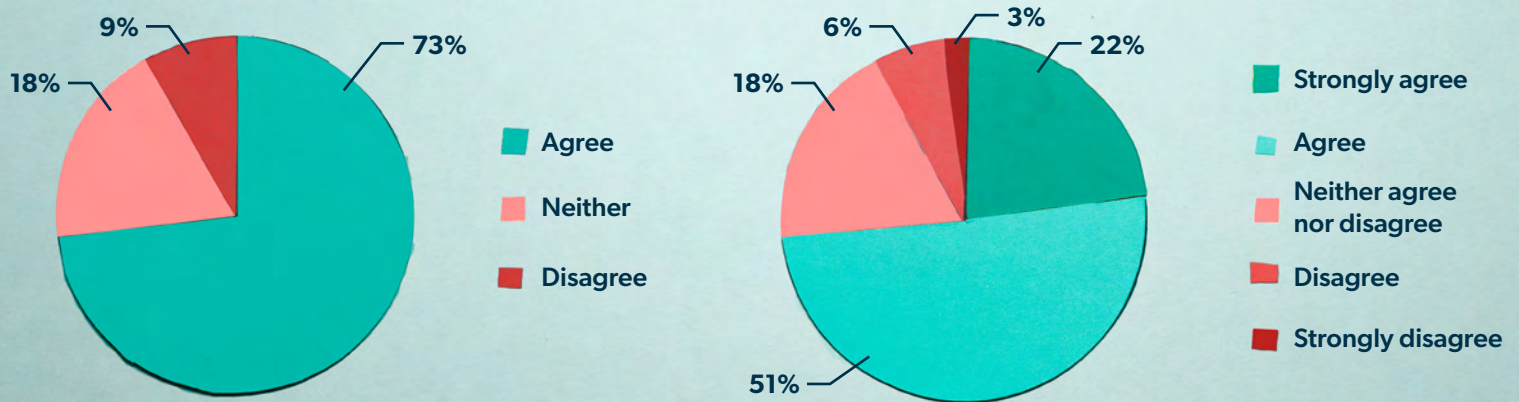
**Companies Using a Food Safety Culture
Audit/Assessment to Measure Sustained
Food Safety Behaviors**



One of the hallmarks of a mature food safety culture is when frontline employees have the awareness and confidence to halt production if they perceive a potential food safety risk. When asked to agree or disagree with the statement, “We prevent problems because our employees have authority to take action if there is a risk that food safety might be compromised,” 73% of respondents agree [Figure 4]. This number would seem to align with the 81% of companies feeling confident in their food safety culture.

FIGURE 4

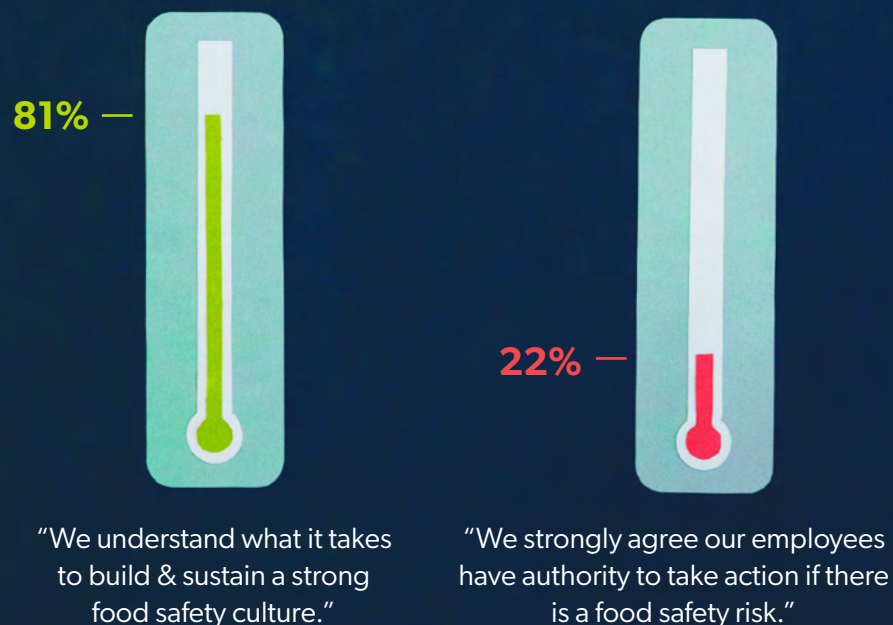
“We prevent problems because our employees have authority to take action if there is risk that food safety might be compromised.”



However, if we break that down a little further, only 22% of that pie falls in the “strongly agree” category [Figure 4]. That means the other 51% are less confident. Granted, this is better than flat-out disagreement with that statement. But **this key expectation of employees isn’t the kind of responsibility that you can casually support**. When a food safety risk is present, either production is stopped, or it continues. As with most food safety measures, there isn’t an in-between. It should be stopped. This points out another disparity: that 81% of companies fully understand what it takes to build and sustain a strong food safety culture, yet only 22% reflect one of the most important outcomes of such a culture [Figure 5].

FIGURE 5

Disparity in Food Safety Culture Awareness & Action on the Floor

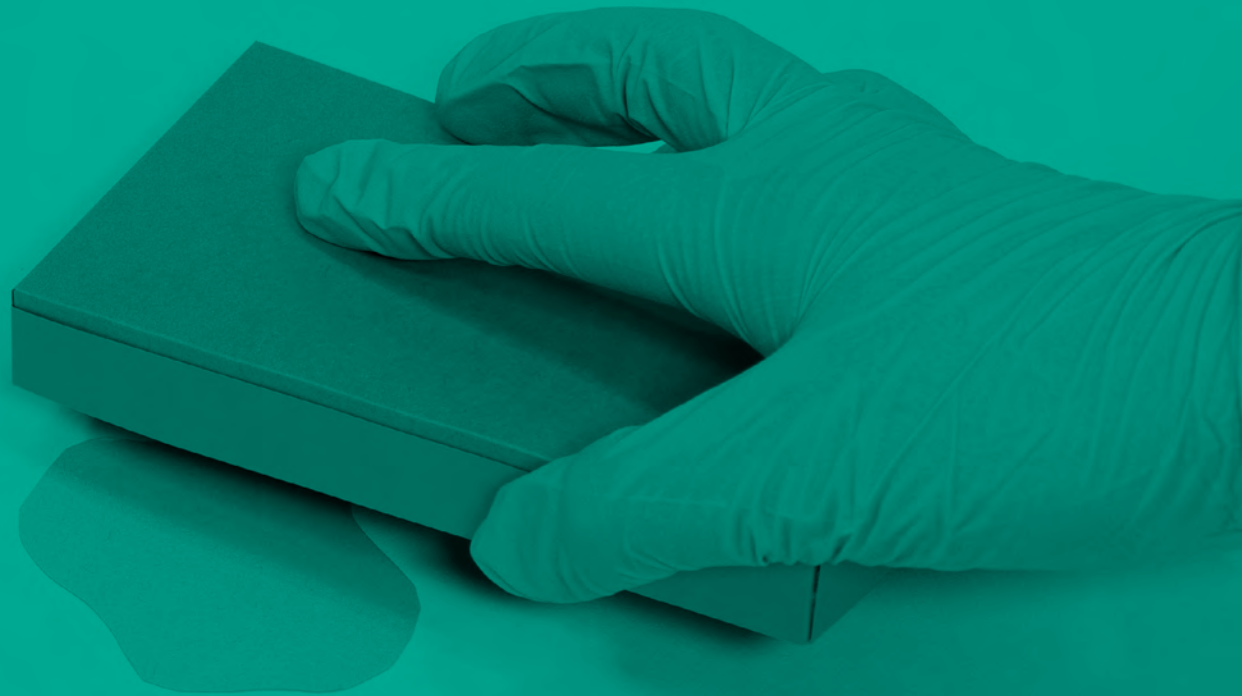


Adding to the narrative, 80% of companies believe they would be more productive if their employees consistently adhered to their training programs [Figure 6]. This seems to suggest a recognition on the value of training, and how more training could improve both food safety *and* productivity. Yet only 19% of companies are increasing their budget for food safety training, only 18% plan to add new training technology in the next year, and only 19% provide more than 20 hours of food safety training to frontline workers in a year [Figure 6].³

From a 10,000-foot view, it's easy to see that something is wrong here. **There are too many contradictions when evaluating food safety training program effectiveness.** But we don't live at the 10,000-foot level. Every day presents challenges and decisions that impact food safety programs. The next chapter of this report investigates these challenges.



The Biggest Challenges in Food Safety Training



Each year this survey asks, “what are your organization’s biggest food safety training challenges?” Respondents are allowed to select their top three. And each year the numbers stay consistent. As a result, we know what the challenges are. But how to overcome the consistent challenges has been less certain.

This report, however, will build a strong foundation for what it takes to overcome these challenges by cross-tabulating survey results based on those who have already succeeded in overcoming the challenges, and by those who already exhibit best practices identified in the data analysis.

But first...the challenges **[Figure 7]**.



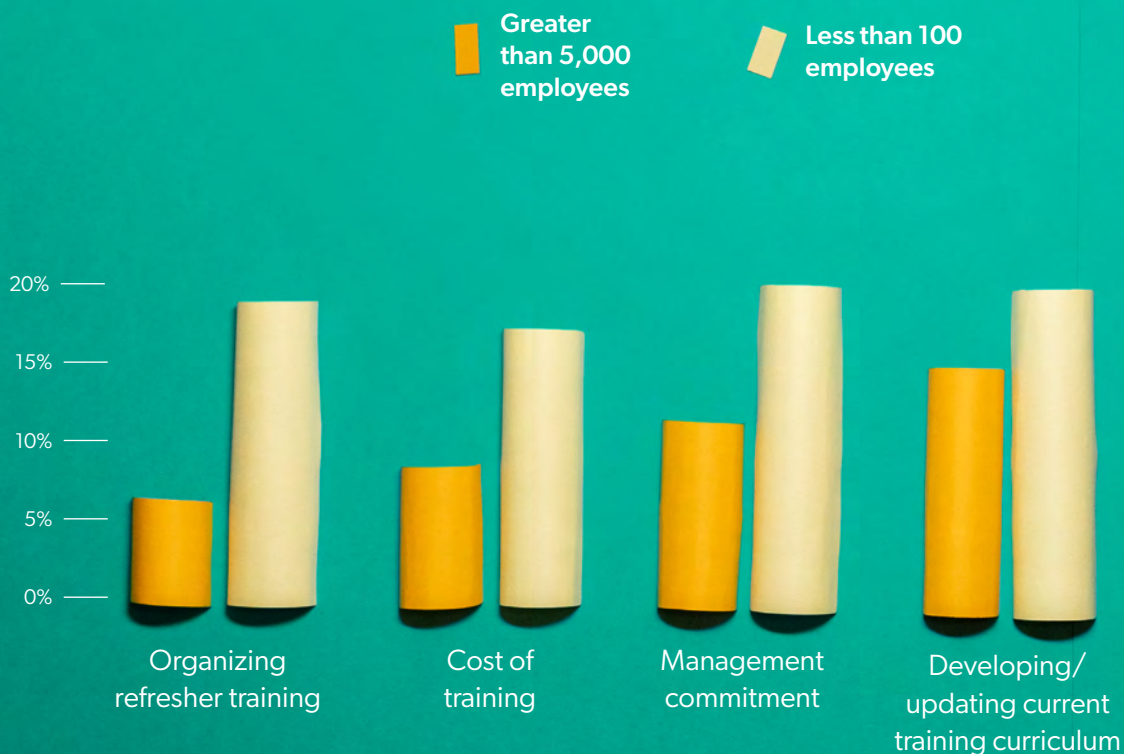
There is a lot to unpack here even before diving into the answers to overcoming these challenges. It is worth noting that these challenges remain consistent across every food industry subsector.⁴

Analyzing the data based on company size, however, does bring out some interesting nuances. One might expect smaller companies to experience additional challenges due to more limited resources. They wouldn't be entirely wrong.

The smallest companies struggle more in developing training (54% more likely to cite as a top-3 challenge than largest companies), organizing refresher trainings (188% more likely), securing management commitment (74% more likely), and handling the cost of training (95% more likely). The table [Figure 8] shows the disparity at the extremes of company size, but the level of challenge, for the most part, diminishes steadily as the size of company increases.

FIGURE 8

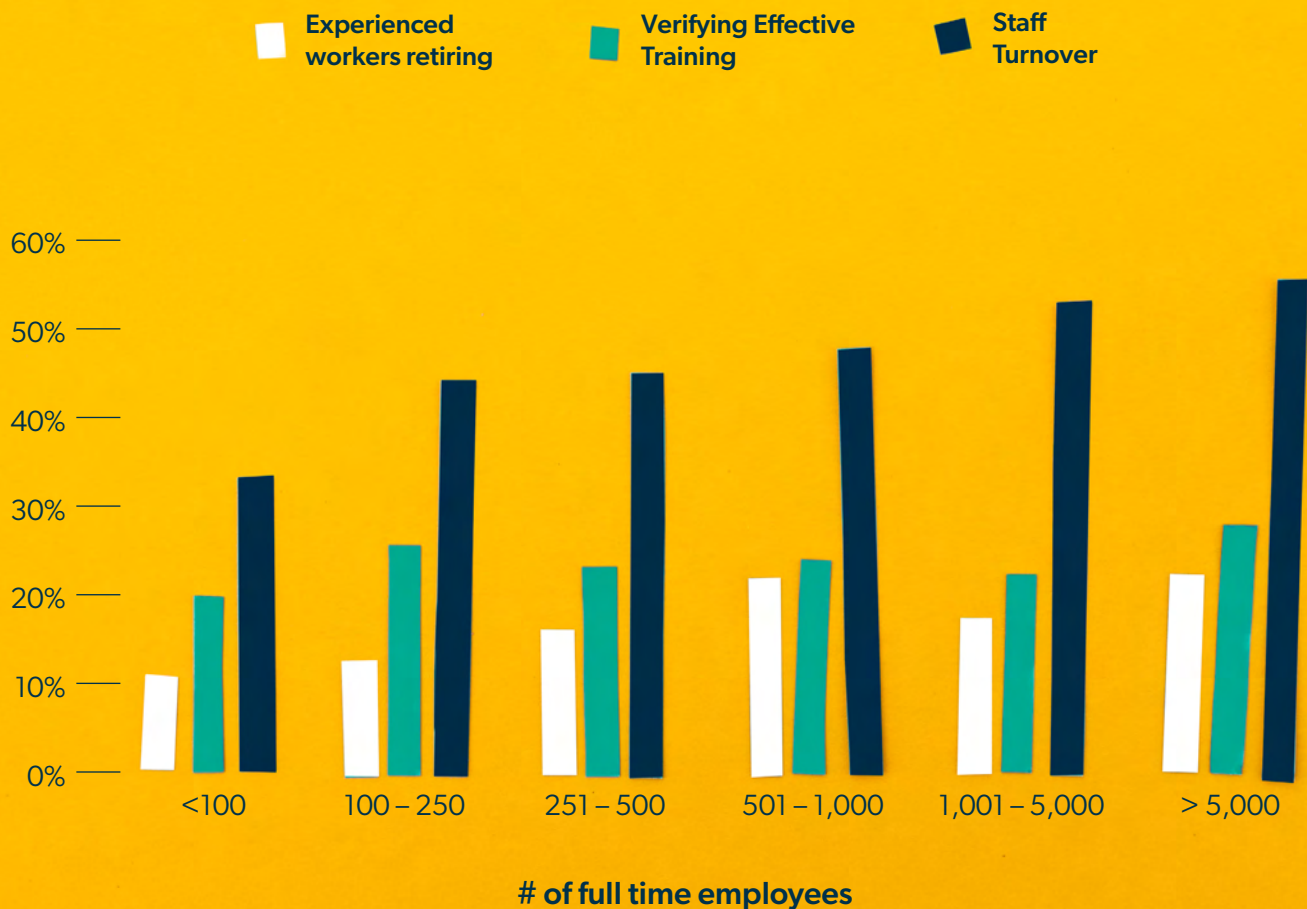
Training Challenges Heightened for Smaller Companies



It would be a mistake however to assume that having more resources solves every problem. As it turns out, the larger a company gets can also exasperate some of the more significant challenges. In particular, the largest companies are far more stressed by experienced workers retiring (115% more likely to cite it as a top-3 challenge than smallest companies) and staff turnover in general (70% more likely), as well as verifying that training is actually being applied on the floor (41% more likely) [Figure 9].

FIGURE 9

Training Challenges Heightened for Larger Companies



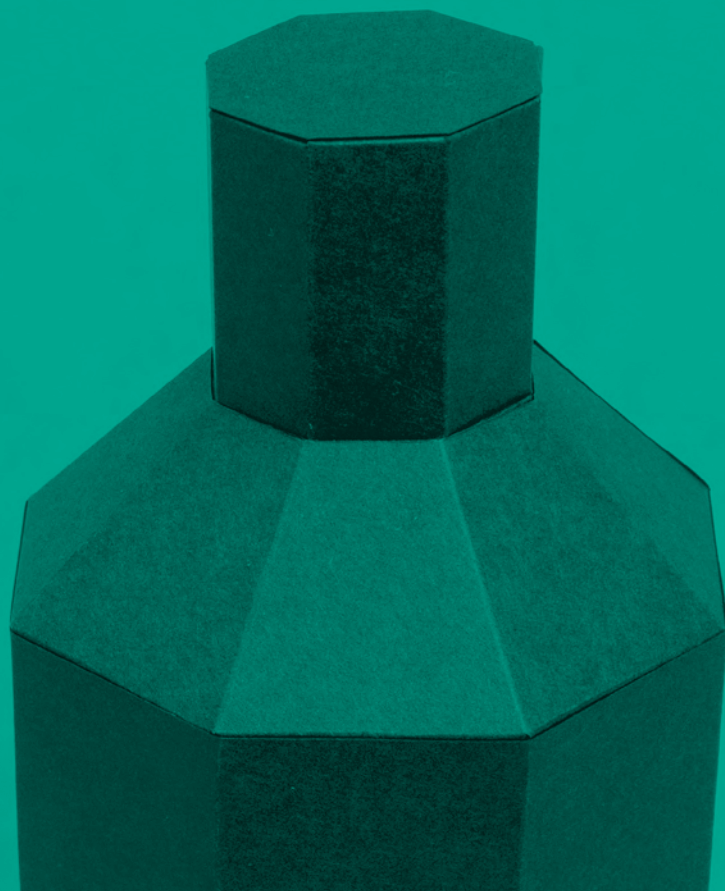
Finally, it is significant that the results change very little from year-to-year. The biggest change from the most recent survey was staff turnover, which rose from 30% of companies citing it as a top-3 challenge to 43% of companies [Figure 7]. This represents the largest swing in all seven times the Global Food Safety Training Survey has been conducted.⁵ It is safe to conclude this unusual swing, for this particular topic, is a direct result of the COVID-19 pandemic, as well as the subsequent “Great Resignation” phenomenon that impacted many parts of the world.

Global pandemic aside, the top challenges have remained doggedly consistent since 2013, the first year this survey was conducted. And “scheduling time for training” has been the #1 challenge every year as well. Since there is no surprise what the challenges will be, the **Best Practices** chapter of this report will highlight how some companies overcome these challenges.

But first, below are more high-level findings that organizations can use to benchmark their own food safety training programs.

Benchmark Metrics:

Current Trends and Characteristics of Food Safety Training Programs



Another staple question in the Global Food Safety Training Survey is to assess how food safety training is delivered. The results of this question have remained consistent since 2013, with only very gradual shifts from one survey to the next.

This year is quite the exception.

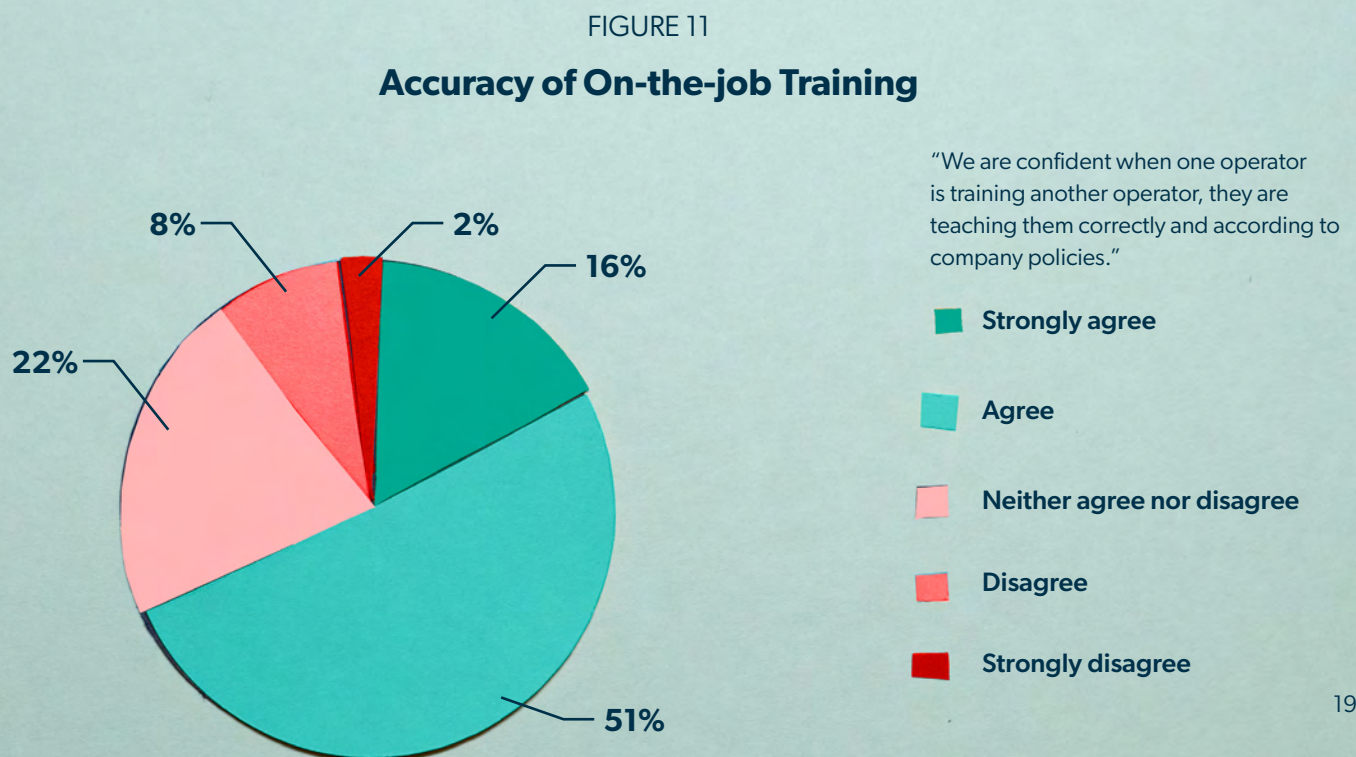
Training delivery methods provide one of the clearest pictures, on paper at least, how COVID-19 affected food safety. Most glaring, eLearning nearly doubled in utilization, from 37% to 63% [Figure 10], as even the smallest of companies needed to adapt to social distancing measures. Additionally, external resources were phased out by many organizations, again presumably to adapt to COVID safety measures. Off-site training was cut by more than half (29% to 13%) and external trainers on site also dwindled from 34% to 21% [Figure 10].



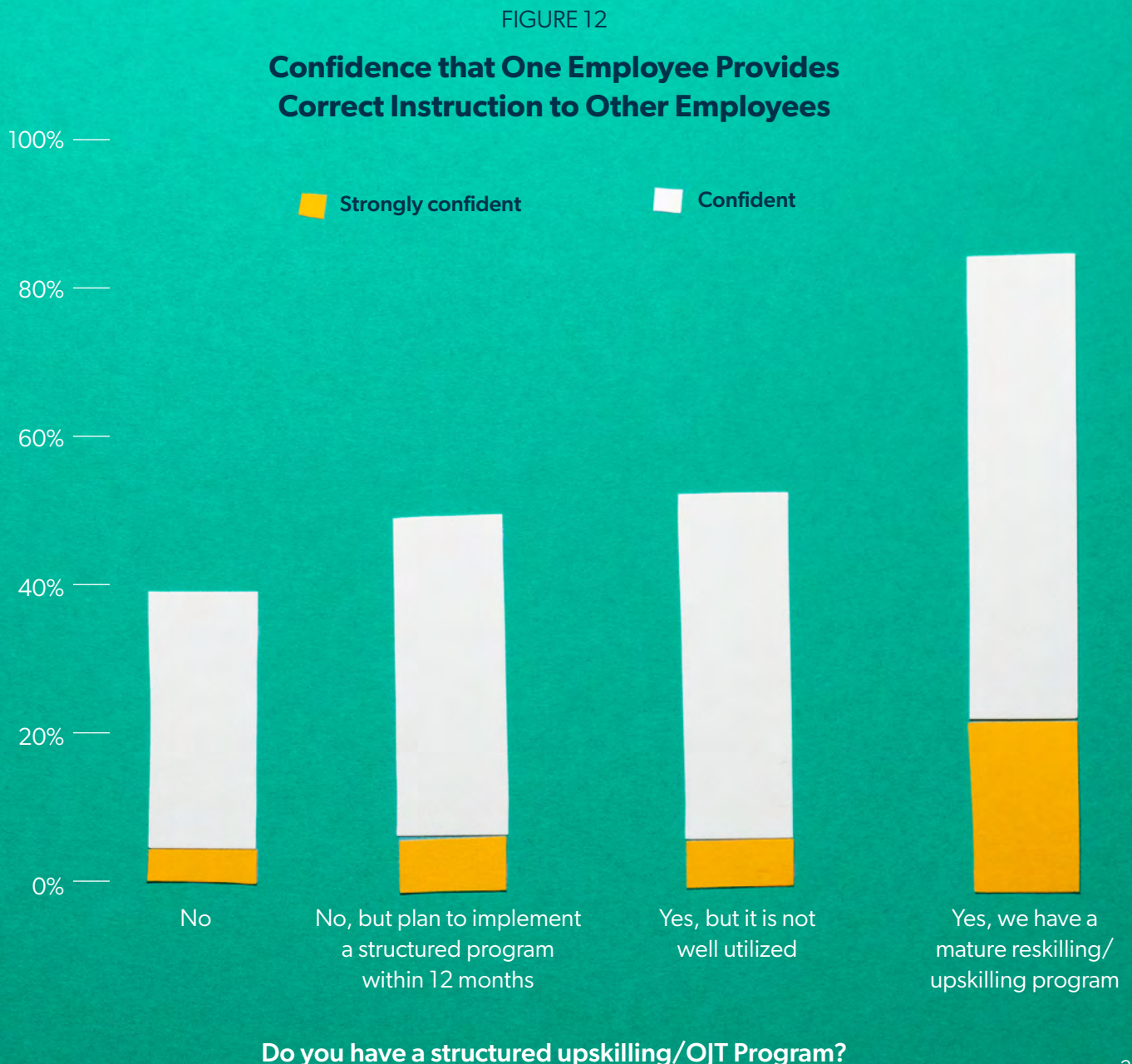
However, while external trainers were limited in use, onsite classroom training with company facilitators rose dramatically, from 34% up to 51% of companies including this training method [Figure 10]. This highlights the need to train in groups for efficiency. While eLearning is increasingly important, it can never be the only delivery method for most facilities. Companies were able to reconfigure training rooms, reduce class sizes, and add COVID precaution measures to continue — and as it turns out, accelerate — training provided to groups. Group-based employee training promotes engagement, achieves “universal” buy-in of trained actions, and allows for reinforcement and coaching. To maintain the highest quality of training in such a setting, it is often recommended to leverage technology that requires consistent interaction with the employees (such as intermittent polling/quizzing) and digitally documents the results.

The significant role of on-the-job training (OJT) in food safety underscores how critical it is for organizations to closely monitor their OJT programs. There is room for improvement here. The survey assessed the confidence level “when one of our operators is teaching another operator how to perform job duties, they are teaching them correctly and according to company policies.” Only 16% of companies could strongly agree with this statement [Figure 11]. And 32% couldn’t agree at all.

Considering there’s no gray area when it comes to food safety, the fact that 1/3 of companies aren’t clear on what direction their employees are giving each other is cause for alarm. Solutions to problems are almost always available, however, and this is no exception. On-the-job training apps enable companies to centrally govern all OJT that is created and delivered. Smartphones and tablets can be equipped with OJT content builders, and only approved OJT content is available for delivery.



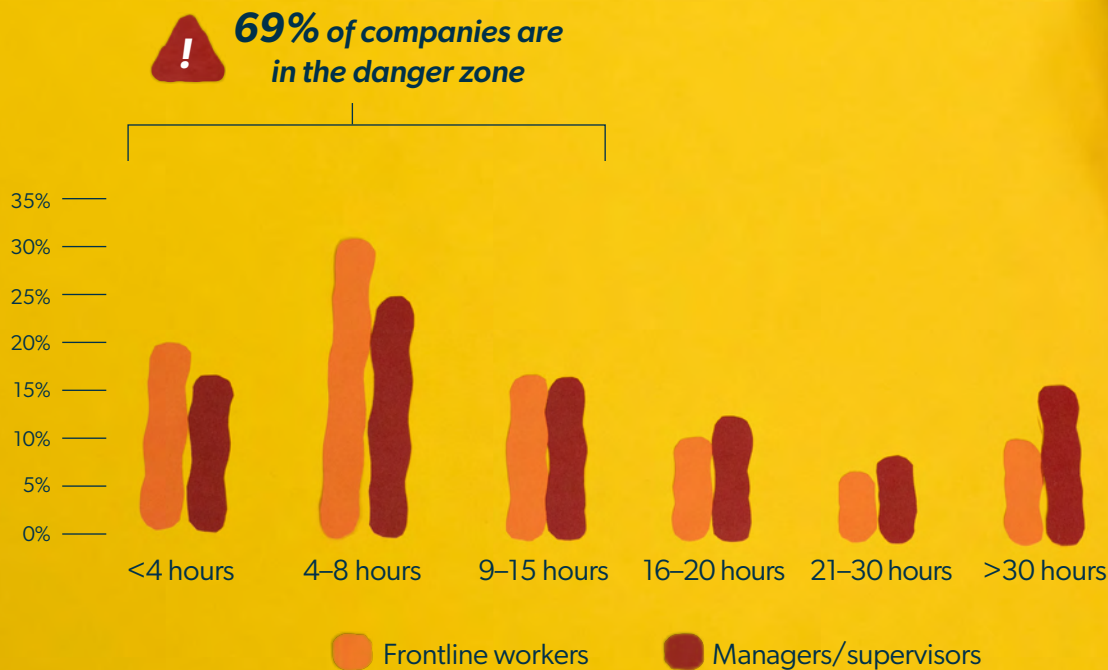
Survey data showed that only 18% of companies plan to add new technology to their training program **[Figure 6]. Considering the ramifications in the uncertainty in OJT quality and accuracy, it could be important for the 72% of companies not adding technology to reconsider** — especially since that same OJT technology can be used to simplify the development and governance of a robust upskilling program. Notably, the presence of such an upskilling program can nearly double the confidence in employee-to-employee instruction (up to 85%), and raise by 5X the number of companies reporting extreme confidence in such instruction — from 6% for companies without upskilling program to 31% for those with a strong upskilling program **[Figure 12]**.



After examining how training is delivered, it's interesting to note how *much* training is delivered. The chart below shows the amount of food safety training both frontline workers and supervisors receive [Figure 13]. We have identified 16 hours or less as the danger zone. We'll learn in the **Best Practices** section of this report how **the 69% of companies in this danger zone are far more exposed to risk of food safety incidents** than organizations providing more than 16 hours of food safety training.

FIGURE 13

Amount of Food Safety Training Workers Receive Annually

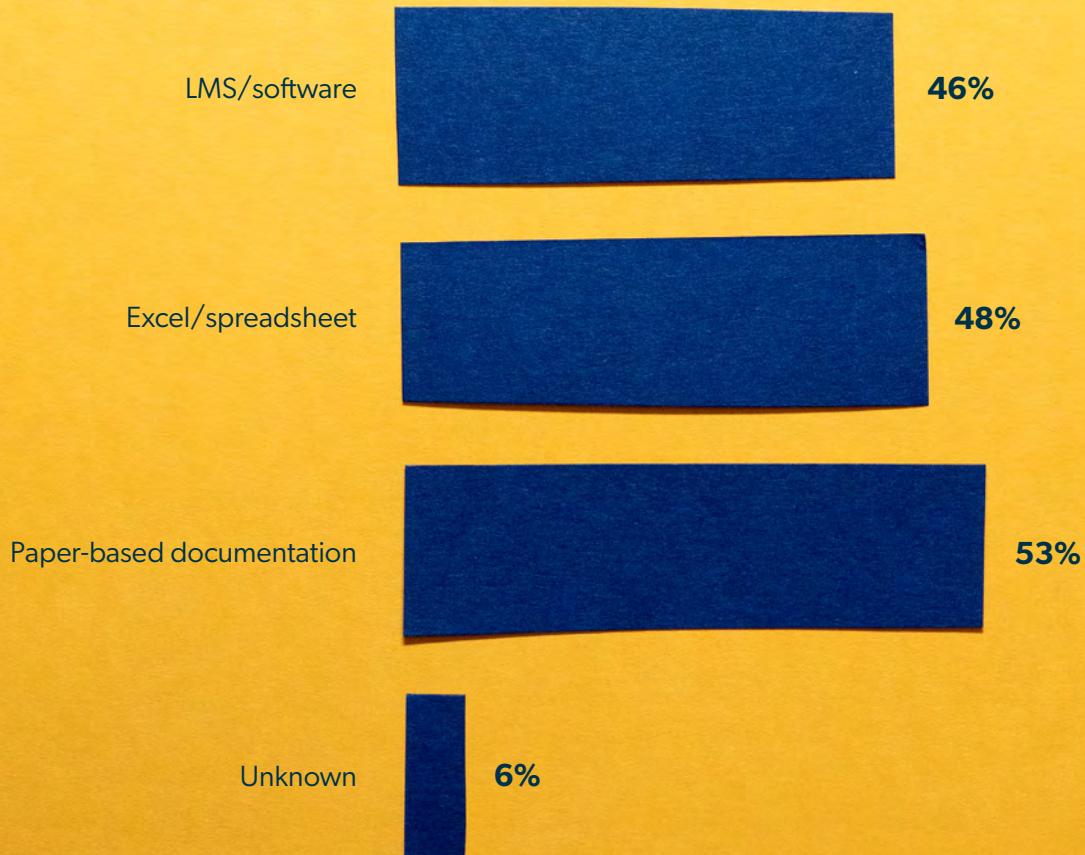


Completing the training circle, it's informative to see how companies document and manage their food safety training. Surprisingly, less than half (46%) of food manufacturing companies use a learning management system (LMS) or similar software to manage their training programs [Figure 14]. It's hard to imagine how companies without an LMS can execute and assess the effectiveness of their training programs.

FIGURE 14

How Companies Document & Manage Food Safety Training

(select all that apply)

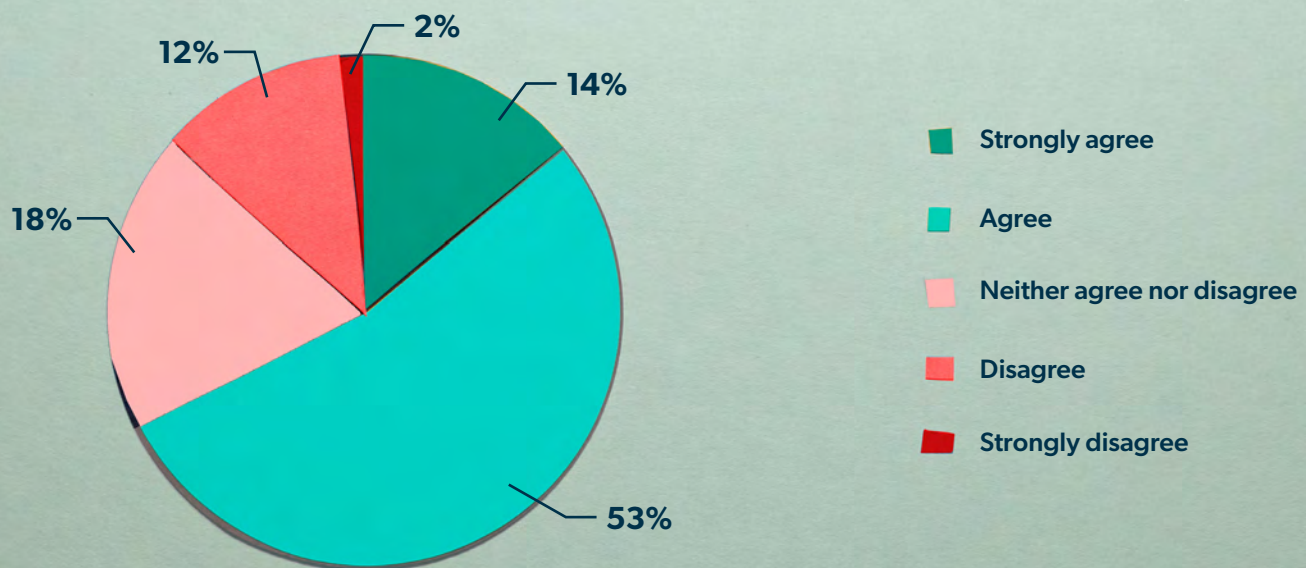


A modestly sized company with 500 employees and 20 hours of food safety training means 10,000 hours before accounting for turnover, which could almost double that figure. And this doesn't even consider workplace safety training, HR topics, job-specific training — **that 500-employee company likely has well over 100,000 training records to manage in a year.**

A basic LMS is standard in most any industry, so it's surprising that food manufacturing facilities aren't more heavily adopting the mainstream technology. But the lack of an LMS is almost certainly the leading factor that 32% of companies are not actively tailoring their food safety training to specific role of the employee being trained [Figure 15]. In fact, only 14% of companies "strongly agree" they do so, with more than half somewhat agreeing. This is another factor we'll revisit in the **Best Practices** chapter, where the data highlights the role that role-specific training plays in more successful programs.

FIGURE 15

Food Safety Training is Tailored to Specific Job Roles



Equally surprising is more than half (53%) of the respondents still use paper records as part of their program. Reliance on paper records opens opportunities for errors, omissions, and constraints. Even the somewhat common use case of paper sign-in sheets for classroom training is obsolete. Technology options exist to digitize this function as well, through the use of a badge reader or training-specific "clickers" that allows the training data to be digitally connected to a specific employee to document their training attendance, engagement, and completion electronically.

Best Practices that Yield Better Outcomes



We've identified challenges, trends, and characteristics. This is good information to know. But it would certainly be nice if there was intelligence on how to overcome the challenges and emulate the best characteristics. This is precisely what's possible by cross tabulating the results of the Global Food Safety Training Survey. The answers are in the data below.

How to Beat the Time Crunch for Scheduling Training

We've learned that since 2014, the top challenges food manufacturers face in their food safety training programs remain very consistent. In particular, the #1 challenge every single year is scheduling time for training. How do some companies successfully address this challenge to deliver the maximum amount of food safety training?

The Global Food Safety Training Survey specifically questions how many hours of food safety training is delivered annually, with six brackets to choose from, ranging from less than four hours to over 30 hours. The companies in the highest brackets have, to some degree at least, overcome the challenge of scheduling time for food safety training. Thus, it is worthwhile to investigate what characteristics they have in common.

The first shared characteristic: shared responsibility. The survey asked if respondents agreed with the statement "our learning management team includes cross functional team members from across our organization." Measured across all companies it's nearly a 50/50 split on whether this is true or not. Dissecting this statement by the amount of training delivered is illuminating.

Among companies delivering the highest amount of food safety training, 77% have cross functional learning management teams, with members from various departments of the organization **[Figure 16]**. Compare that to the 6% who are able to succeed in this training metric without a cross functional learning management team. A swing this drastic, from 6% to 77%, points to a clear and obvious first step to overcome this challenge.

Taking a further look still, as companies slide down the measure of how much food safety training they deliver, the likelihood they have a cross-functional learning management team slides down along with it **[Figure 17]**.

FIGURE 16

Companies Delivering 30+ Hours of Food Safety Training have Cross-functional Learning Management Teams

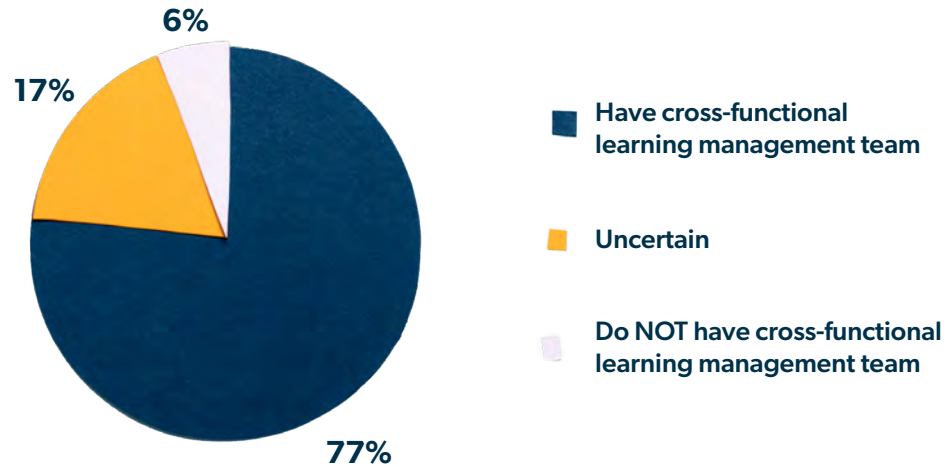
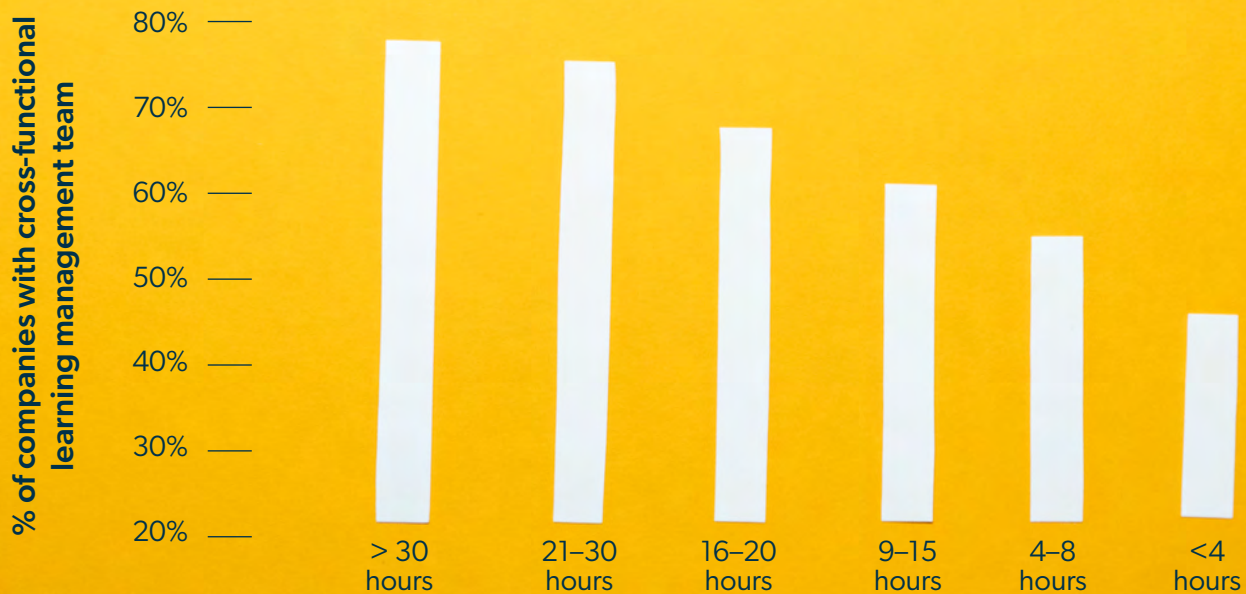


FIGURE 17

Ability to Deliver More Training with Cross-functional Learning Management Team

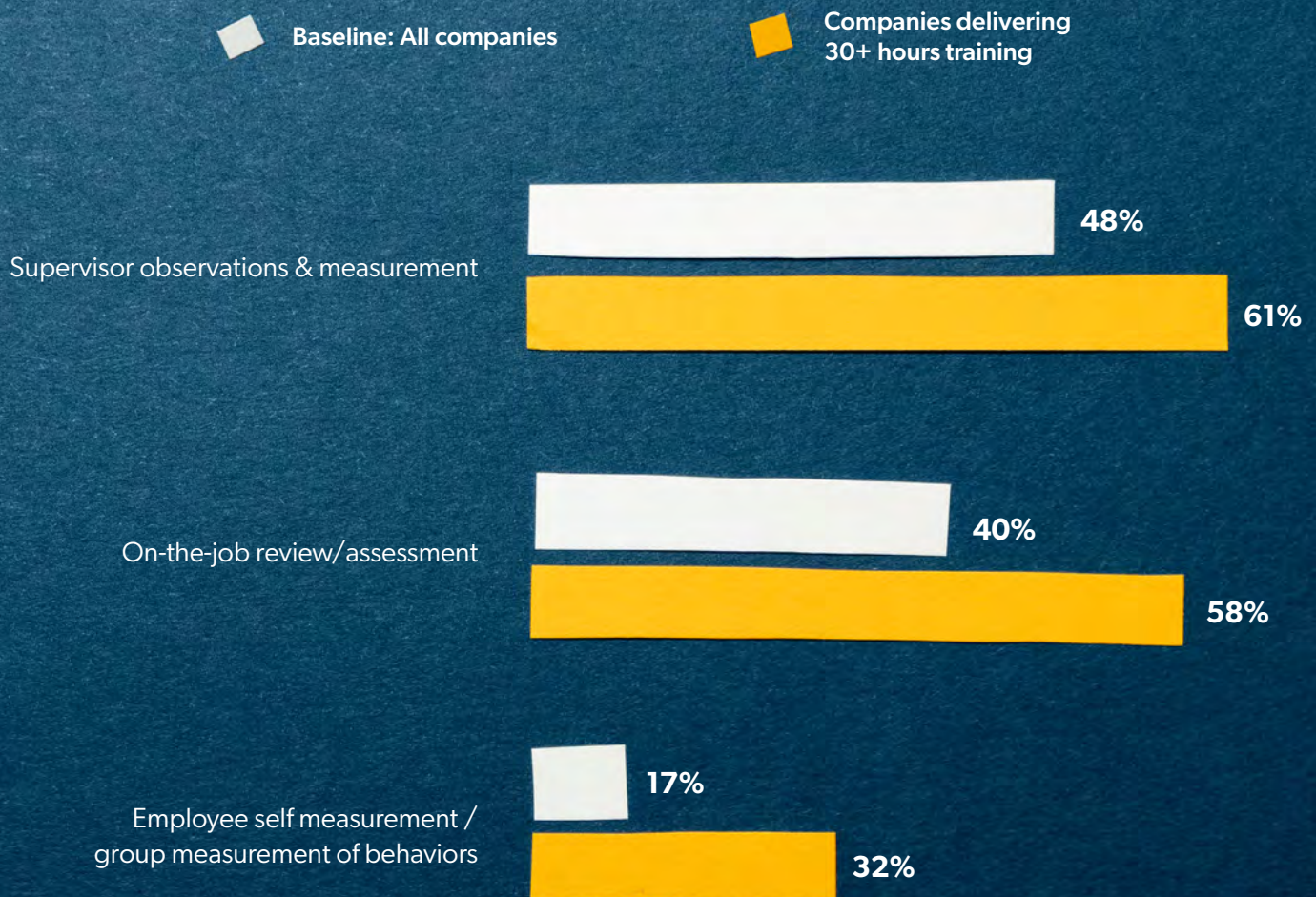


Annual hours of food safety training our company delivers

Continuing the theme of shared responsibility, when asked how sustained, positive food safety behaviors are measured, we see a similar trend emerge. Companies delivering the most food safety training are more likely to have on-the-floor personnel involved and invested in the assessment of behaviors [Figure 18]. The survey reveals 61% utilize supervisor observations (compared to 48% baseline of all companies), 58% conduct on-the-job reviews (compared to 40% baseline), and 32% utilize employee self-measurement (compared to 17% baseline).

FIGURE 18

Methods Used to Measure Food Safety Behaviors



Looking at these same methods of evaluating food safety behaviors on the floor, we see that the utilization of each of these methods drops as the amount of food safety training drops [Figure 19]. This makes sense, as it's hard to get frontline workers and supervisors involved in the evaluation of food safety if they are barely introduced to the concepts.

FIGURE 19

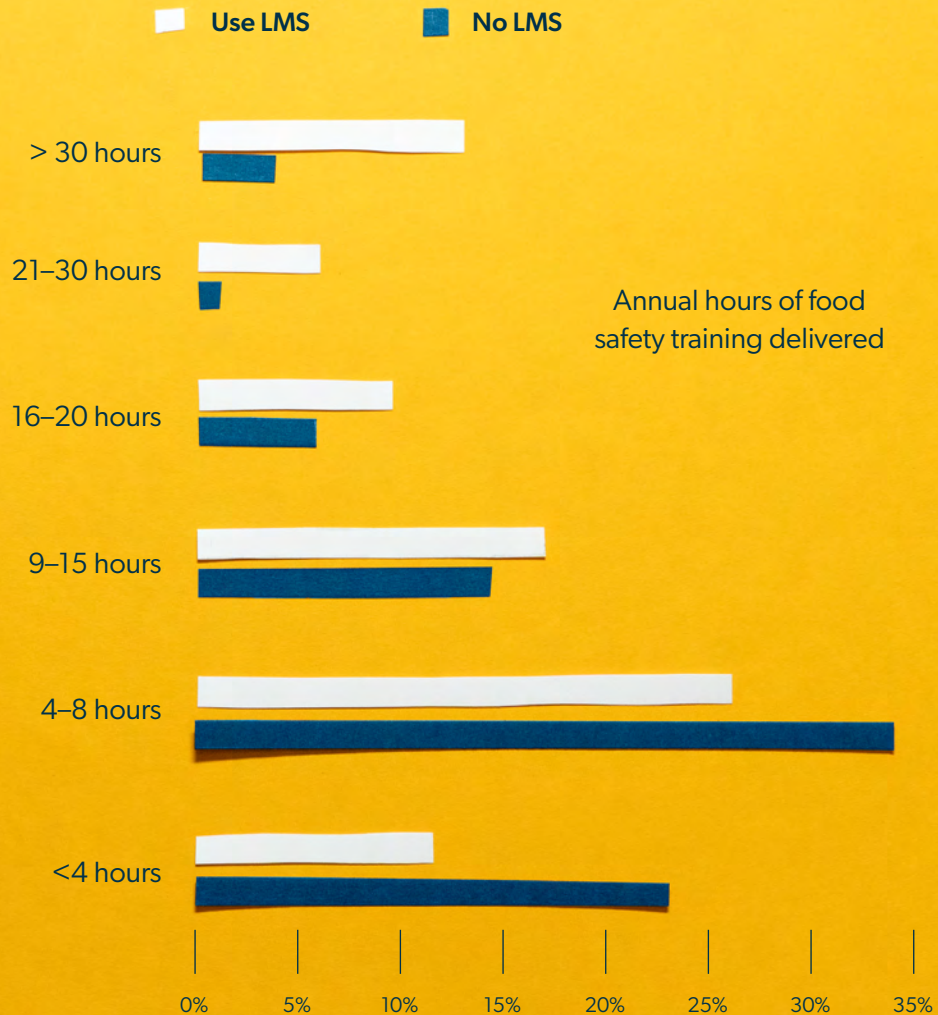
Shared Responsibility Declines as Food Safety Training Declines



Shifting gears to technology, **companies utilizing a learning management system (LMS) to manage training fall in the highest bracket of training delivered 2X more than companies not using an LMS [Figure 20].** When combining the two highest training brackets, the jump from companies not using an LMS (14%) to companies that do use an LMS (26%) represents an 86% greater likelihood in overcoming this challenge by simply adding what is already a mainstream practice in most other industries.

FIGURE 20

Ability to Deliver More Food Safety Training by Utilizing an LMS



Finally, companies delivering the most food safety training are also the most likely to add budget for food safety training. In some ways this is counterintuitive. It would seem logical to think companies with the least food safety training are the ones in most need of increased budget. **But it demonstrates that companies doing the most training recognize the value it provides.**

Measured across all companies, only 19% report an increasing budget for food safety training, making it quite rare. Drill this down to the specific companies that provide the most training and the number rises to 33% [Figure 21]. Furthermore, as companies provide less training the likelihood they will invest more to improve their program dwindles along with it, dropping from 33% down to 15% [Figure 22].

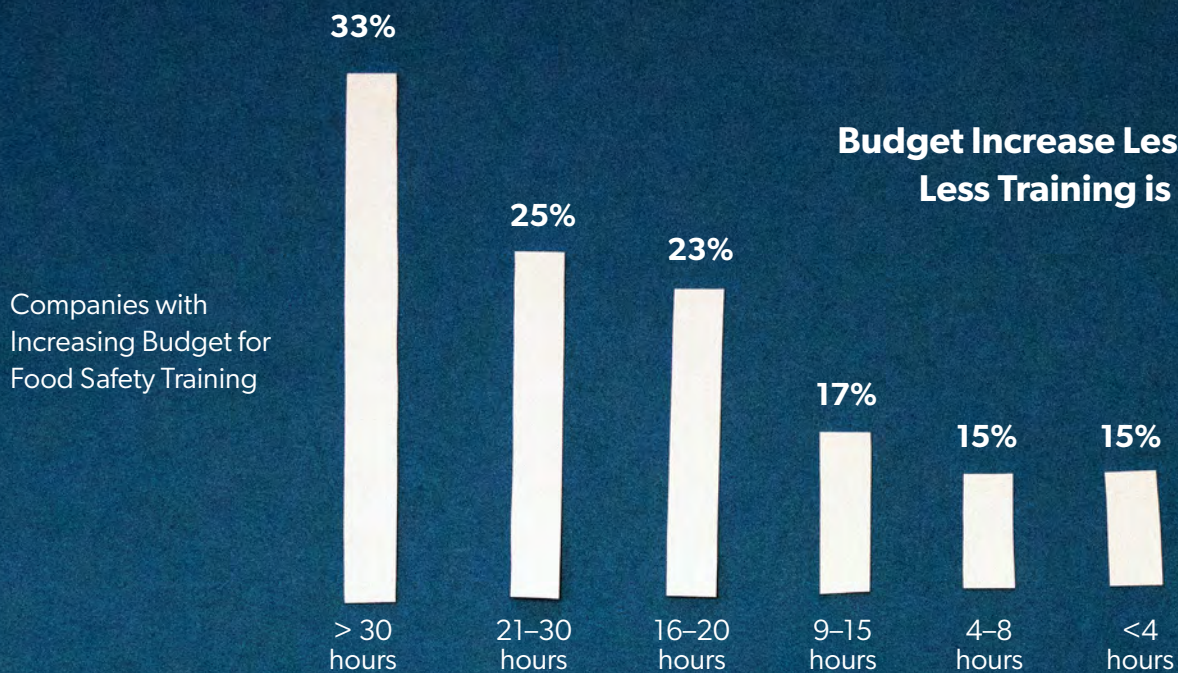
FIGURE 21

Companies Delivering More Training Invest More in Training



FIGURE 22

Budget Increase Less Likely as Less Training is Delivered



Manufacturing facilities are under pressure to produce maximum yield and keep production running full steam ahead. This can present a challenge for learning management teams to schedule adequate time for training. But in this exercise, **the data have identified at least four keys to overcoming the challenge of scheduling time for training:**

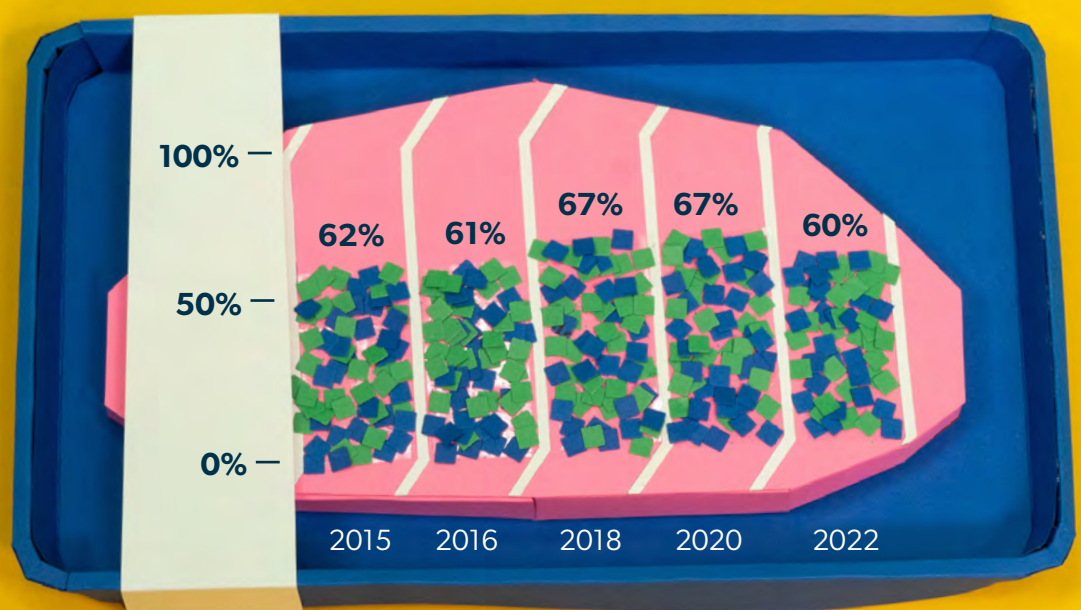
- Include leaders from across the organization in the learning management program.
- Give frontline workers and supervisors responsibilities in the measurement and evaluation of food safety behaviors.
- Utilize an LMS.
- Give food safety training the status it deserves by investing more in the effort.

How to Ensure Employees Follow Food Safety Protocols

In 2022, an even 60% of companies state that employees don't always adhere to food safety protocols on the floor. There is a sliver of promise here as it represents the first measurable dip in this alarming statistic. But, overall, this is another data point that has remained doggedly steady [Figure 23]. So, let's investigate how a company can join the 40% of companies with employees consistently adhering to their food safety program.

FIGURE 23

Percentage of Companies Stating Employees Don't Always Adhere to Food Safety Program on the Floor



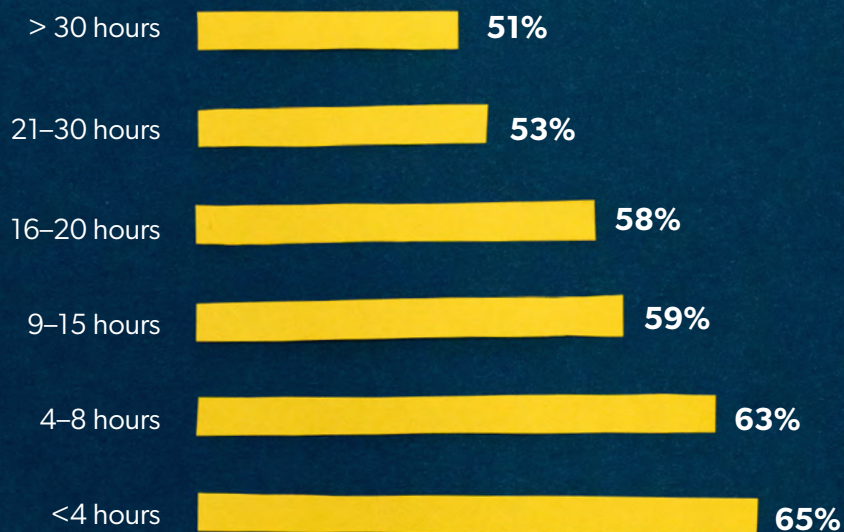
The first thing that stands out is, perhaps, basic but worth identifying. Step one to ensure employees follow your food safety protocols on the floor is to provide more food safety training. When breaking down companies who have employees not following the program by quantity of training received, we see steady, consistent improvement as more hours of training are provided [Figure 24]. So much so that the companies providing the most training sit at 51% whereas companies providing the least training are 65%. Keeping in mind the desire is to be low here, this 14-percentage point difference is a 22% improvement by simply providing more training.

Beyond training quantity, quality and method matter as well. **The most significant impact on adherence to food safety protocols appears to be providing training that is tailored to specific roles.** This underscores the importance for all training to be applicable and relevant to the job the employee performs. Otherwise, employees receiving some irrelevant training sessions can tune out, which can become a habit even when the training becomes relevant.

FIGURE 24

We have Employees Who Do Not Follow Food Safety Protocols on the Floor

Hours of Food Safety Training
Delivered Annually



The variance is substantial here, companies proficient at tailoring training to specific roles are at 42% compared to 81% for those that do not [Figure 25]. It's clear a blanket, one-size-fits all training approach leads to 2X greater likelihood employees will lapse in food safety protocols. LMS technology that helps program managers develop and manage **learning plans by job roles can thus go a long way to improving food safety.**

FIGURE 25

Training Tailored to Roles: Impact on Adherence to Food Safety Protocols



Similarly, **companies that add site-specific examples such as photos or videos to training materials have a noteworthy food safety advantage.** Adding such examples increases the likelihood of employees always adhering to food safety protocols from 27% to 41% [Figure 26]. Looking at this a slightly different way, lacking site-specific examples exposes far too much risk. Among companies not including site-specific examples in training, 73% cite employees not following food safety protocols [Figure 27].

Impact of Site-specific Examples in Training on Adherence to Food Safety Program

FIGURE 26

Use site-specific examples

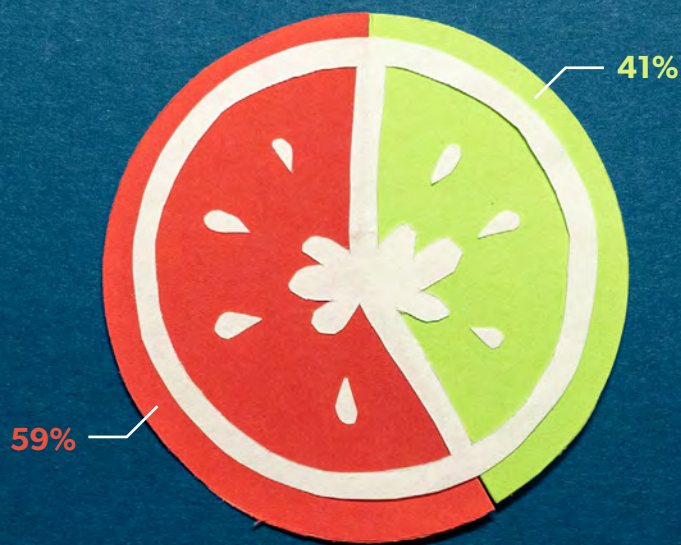
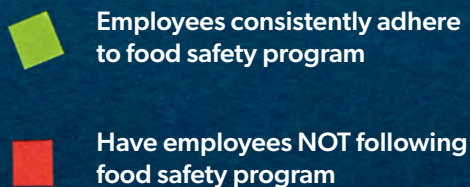
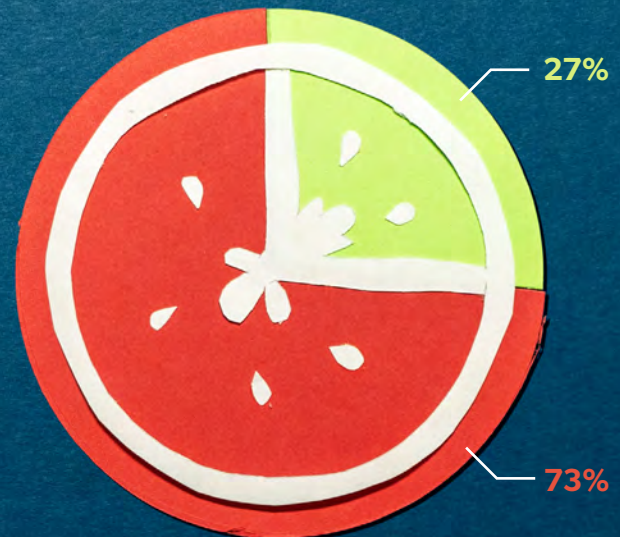


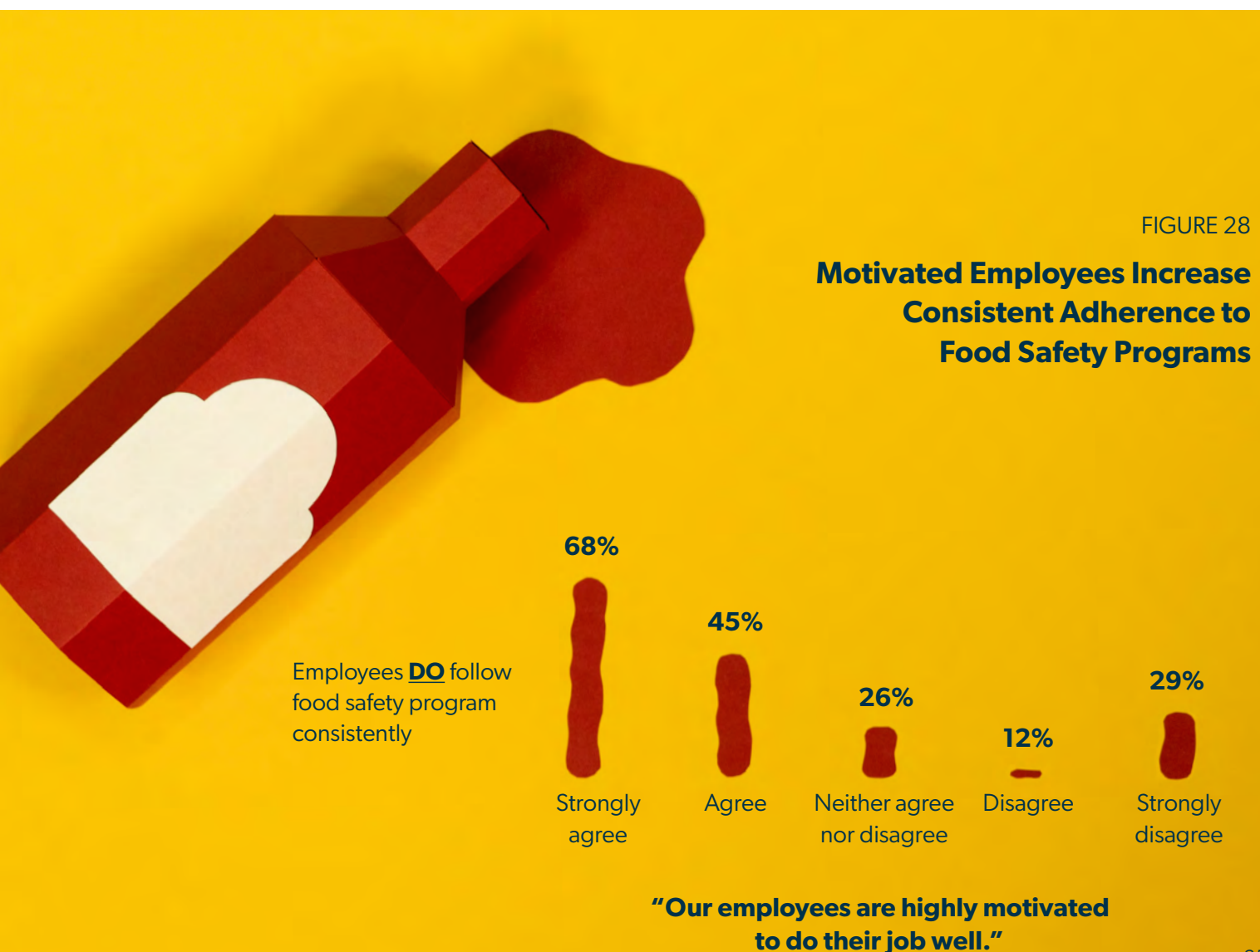
FIGURE 27

Lacking site-specific examples



Many companies necessarily rely on training course libraries developed by third parties. The takeaway here is that, when doing so, they must **ensure those training courses can be easily customized to insert some familiar, site-specific examples to reinforce the training content**. For example, when talking about allergens, highlight the allergens present and the specific allergen controls utilized in your plant. Off-the-shelf training can be a great solution if the provider is knowledgeable on the topic, but even in this case be certain the content is not “locked” in a way that cannot be customized.

Finally, employees who are highly motivated to do their job well can lead to a significant reduction in food safety risks. Companies that report their employees are highly motivated, when asked separately on adherence to the food safety program, 68% are confident their employees **do** follow food safety protocols consistently. This drops as low as 12% confidence in food safety protocols for companies that do not feel their employees are highly motivated [Figure 28].

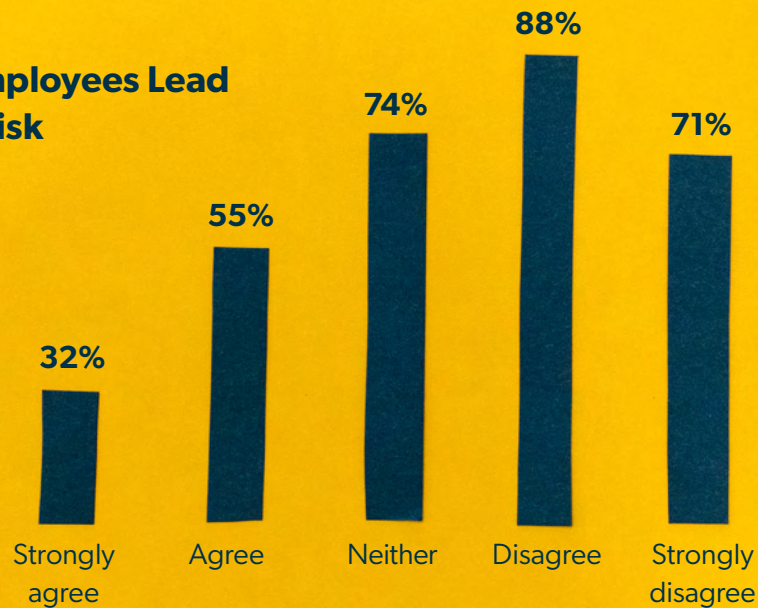


The same numbers stated a different way: Unmotivated employees lead to 88% likelihood of **not** following food safety programs consistently. Among highly motivated employees, that likelihood to **not** follow the program drops significantly down to 32% [Figure 29]. Summing up all these numbers: motivated employees are a staggering 113% more likely to lead to consistent food safety behaviors.

FIGURE 29

Unmotivated Employees Lead to Food Safety Risk

Employees do **NOT** follow food safety program consistently



“Our employees are highly motivated to do their job well.”

“Always” is a pretty tough measure. But as stated, food safety is one of those practices that require constant vigilance. Through the analysis of thousands of company practices, **the data have identified these characteristics that keep companies out of the “we still have employees not following our food safety program” bucket:**

- Provide more food safety training, a minimum of 20 hours per year starts to yield measurable results.
- Tailor food safety training to the specific role of the employee.
- Include site-specific elements like photos, videos, and instruction in the training content.
- Engage employees so they are highly motivated.

That last point could be another example of common sense. But it begs the question: how can you keep employees motivated?

How to Keep Frontline Employees Highly Motivated to Do Their Job Well

This report has just unpacked the data showing highly motivated employees can reduce the level of food safety risks. Additionally, motivated employees lead to a decrease in turnover. Staff turnover was the #2 challenge cited in this survey. But companies with motivated employees are able to quell this challenge to be more manageable. Only 39% of companies with motivated employees cite turnover among their top three challenge, compared to the 51% for companies that cannot agree their employees are motivated [Figure 30].

These are two crucial improvements. So, let's investigate how to keep employees highly motivated!

FIGURE 30

Decreasing Turnover through Employee Motivation

Companies citing employee turnover among top 3 challenges

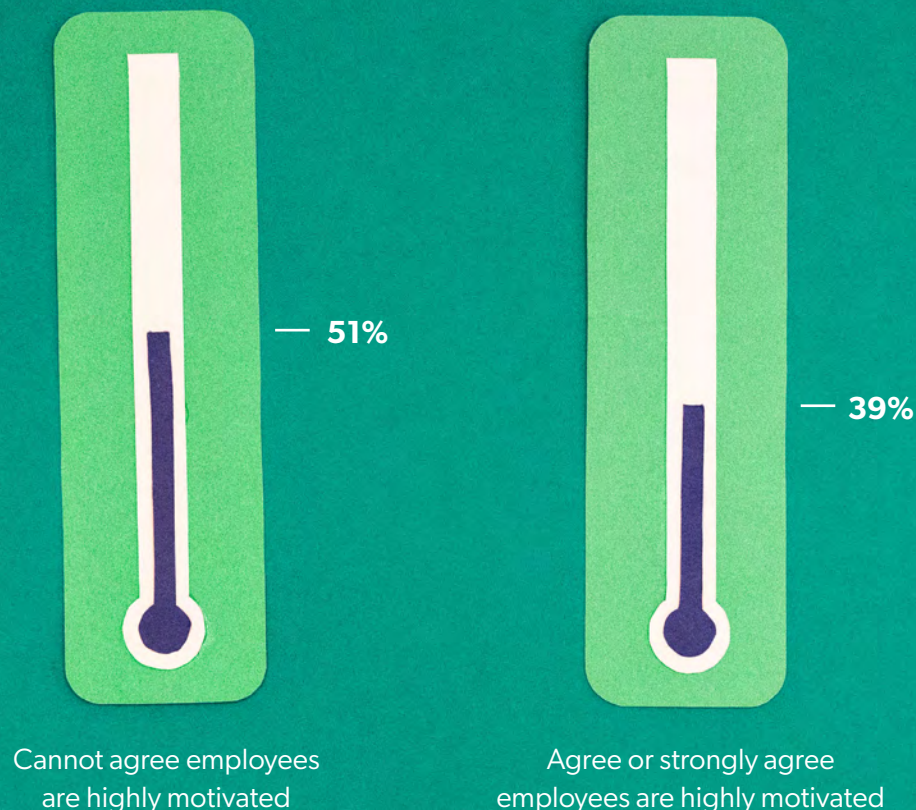


FIGURE 31

Impact of More Training on Employee Motivation



Percentage of companies stating employees are highly motivated to do well

Once again, simply providing employees with more training is a great place to start. 71% of companies providing the most annual training report their employees are highly motivated, and a minimum of 16 hours per year is needed to stay north of 60% [Figure 31].

Another key to keeping employees motivated is taking the effort to make their training applicable to their roles and their environments. Companies using an LMS can easily tailor learning plans by specific roles. Doing so can nearly double the likelihood of employees being highly motivated, up to 70%. Meanwhile, companies not tailoring training to specific roles are more than 3X more likely to have unmotivated employees [Figure 32].

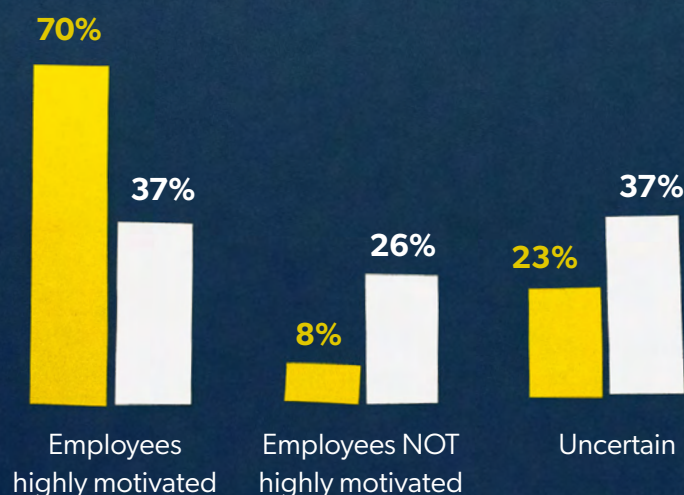


FIGURE 32

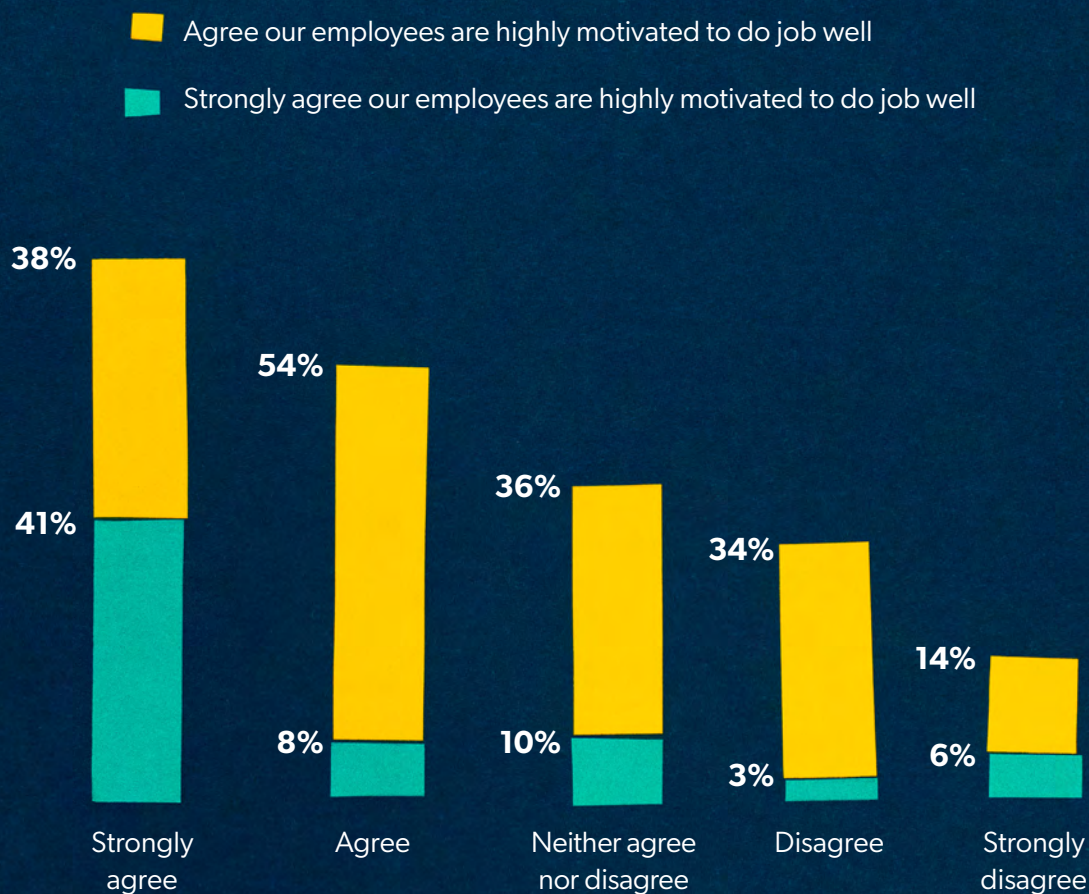
Training Tailored to Role: Impact on Employee Motivation to Do Job Well

■ Training is tailored to role
■ Training is NOT tailored to role

Customizing the training to the employees' environment has a similar impact — **80% of companies with site-specific elements report their employees are highly motivated to do their job well.** Even better, 41% "strongly agree" with that assessment [Figure 33]. As companies slide down the scale of providing site-specifics in training, the level of highly motivated employees drops all the way to 20%.

FIGURE 33

Impact of site-specific training examples on employee motivation



"We use examples from our own production facility (photos, videos, etc.) in our food safety training."

FIGURE 34

Impact of Upskilling Program on Employee Motivation



Rounding out the motivation factor is providing employees more opportunity. **Companies with a mature upskilling program that is being utilized are nearly 2X more likely to have highly motivated employees who are performing their jobs well [Figure 34].** Seeing the correlation between highly motivated employees and adherence to food safety programs, this jump from 43% to 78% in employee motivation is significant.

What's interesting is that simply announcing plans to rollout upskilling opportunities impacts employee motivation, increasing the likelihood from 43% to 58%. Perhaps even more interesting, having an upskilling program but not utilizing it well is no better than just planning to have such a program, in fact it even dips motivation somewhat. To join the 78% of companies reporting highly motivated employees, the upskilling program needs to be mature and utilized.

A theme is starting to emerge, as the answers to keeping employees motivated are similar to overcoming other seemingly formidable obstacles:

- Simply provide more training.
- Tailor the training to employee role.
- Include site-specific examples in the training content.
- Give employees opportunity through an upskilling program that is available and utilized.

How to Prevent Problems with Knowledgeable, Confident Frontline Employees

This survey uncovered that only 22% of companies strongly agree they “prevent problems because our employees have authority to take action if there is a risk that food safety might be compromised.” This is a table stake of a mature food safety culture, and a necessity to prevent potential noncompliances. For this expectation to become a reality, frontline workers need to be able to recognize the risks, confident in their knowledge, and engaged in their role in food safety.

The pattern continues. The simplest lift again is providing more training, which can increase the likelihood from 13% to 37% that employees will “pull the cord” on production when necessary. In nearly identical numbers, providing a mature upskilling program can triple the likelihood from 12% to 37%.

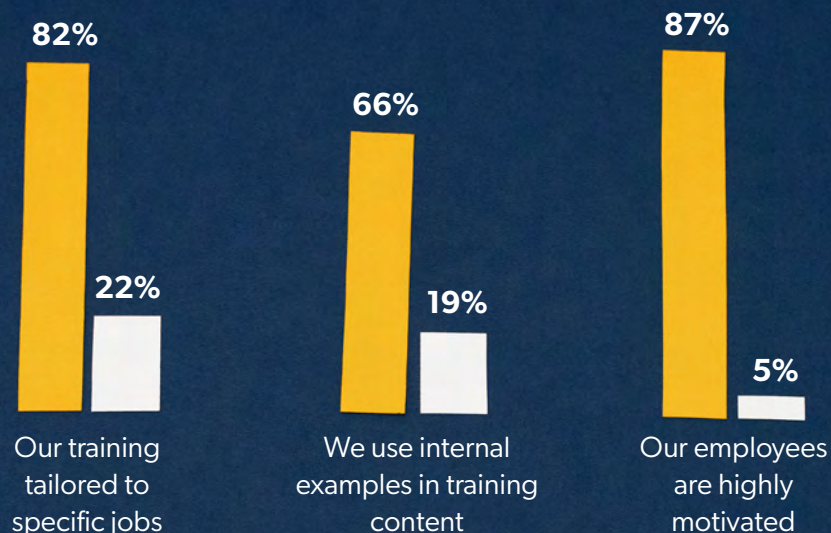
Even more conclusive are characteristics that can jump the 22% baseline standard up to over 80%. The companies with the qualifying factors below “strongly agree” their employees will pull the cord on production when a potential food safety risk emerges:

- Using internal examples in training clearly makes this possible for employees to act confidently. Only 19% of companies not using internal examples will succeed in this metric, compared to 66% that do use internal examples **[Figure 35]**.
- Likewise, 82% of companies with role-specific training have employees that will do the right thing when necessary, compared to 22% without role-specific training **[Figure 35]**.
- And 87% of companies with highly motivated employees will succeed here, compared to just 5% of companies that can’t keep employees motivated to perform well **[Figure 35]**.

FIGURE 35

Qualifying Factors for Frontline Employees to Prevent Food Safety Problems

■ Agree
■ Disagree



Conclusion:

*Recommendations
Based on Data Analysis*



The Global Food Safety Training Survey has delivered a wealth of data companies can use to improve their food safety training programs, which reduces risk of a food safety incident. **The data clearly points companies to the specific actions needed to implement these improvements.** The 600 million cases of foodborne illness and 420,000 deaths annually are more than enough incentive to do so. As are the more day-to-day impacts of wasted product and quality holds, not to mention the exorbitant cost if a recall is necessary.

Because the risk and ramifications are so high, the reward for improvement is also great. Below is a consolidated recap of five best practices the data show can lead to greater food safety within an organization.

1. Deliver at least 16 hours of food safety training annually to frontline employees, preferably over 30 hours.
2. Include site-specific examples like photos and video into employee food safety training materials.
3. Tailor the training that employees receive to the specific role of that employee.
4. Utilize a learning management system (LMS).
5. Implement and maintain an upskilling program.

Additionally, **companies with highly motivated employees are far much better at reducing food safety risks than those without motivated employees.** Keep this in mind when considering the below recommendations and their impact on employee motivation.

We recommend every food manufacturing facility follow these suggestions to improve food safety.

#1. Deliver More Food Safety Training

The first recommendation is probably the most basic: provide more food safety training to frontline employees. The measurable gains listed below are more modest than other recommendations, but more training also acts as the foundation for which the subsequent recommendations are applied.

- Companies providing the most food safety training show 22% improvement in employees consistently adhering to food safety program on the floor **[Figure 24]**.
- 71% of companies providing the most food safety training have highly motivated employees **[Figure 31]**.
- Employees are more likely to prevent problems by taking action on their own if they perceive a potential food safety risk. This likelihood jumps from 13% to 37% ranging from companies providing the least training to most.
- Companies providing the most food safety training are 2X more likely to invest more in food safety training, demonstrating they can see the value of the training they provide **[Figure 22]**.

#2. Insert Site-specific Examples into Training Content

Many companies leverage training content from third party providers to add to their food safety training libraries. This can be an effective practice in the effort to deliver more training to frontline workers, assuming the content provider has been vetted for their credentials in food safety subject expertise. **But one thing the data make clear: ensure any training content that is purchased can be easily customized.** This is because inserting site-specific examples can have a big impact on food safety. This makes sense, as employees are more likely to internalize and remember training that reflects the environment where they work.

- Among companies that lack site-specific example in training, only 27% can state with confidence their employees consistently follow all food safety protocols. Companies that do add site-specific examples jump from 27% to 41% in this key metric **[Figures 26 & 27]**.
- 79% of companies that do a good job of including site-specific examples in training have highly motivated employees. That drops all the way to just 20% for companies without site-specific examples **[Figure 33]**.
- Ensuring frontline workers have the awareness, knowledge, and confidence to “pull the cord” and stop production is key to preventing problems. This characteristic jumps all the way to 66% for companies with site-specific examples from just 19% for those without **[Figure 35]**.

#3. Tailor Training to Specific Roles

Delivering the same training content to every employee regardless of their role is a dangerous practice. When the context of the learning is not relevant to an employee’s specific role or area of a manufacturing plant, a person starts to “tune out.” This is natural since it is not relatable or clear how it would apply to their everyday activities.

For example, an employee who works in warehouse area driving forklifts and building pallets experiences a different daily work environment with different accountabilities than an employee working on a production line. If this forklift driver receives food safety training relevant to the production line — which is not their role — they will not relate to the content and may start to lose focus. **So, when training that is relevant is presented, such as safe pallet building practices, they could already be tuned out.** This could lead to a miss on critical information to their job that could lead to damaged and contaminated foods if certain items are stacked atop others.

If this example is not illustrative enough, the facts below should be.

- There is 2X greater likelihood employees will lapse in food safety protocols when receiving training not specific to their role — 42% with role-specific training, 81% without [Figure 25].
- 70% of companies with role-specific training have highly motivated employees. Conversely, companies that report they do not tailor training to specific roles are 3X more likely to have unmotivated employees [Figure 32].
- At companies with role-specific training, 82% will have employees that stop production to prevent food safety risks compared to just 22% without [Figure 35].

#4. Utilize a Learning Management System

We've analyzed how tailoring learning plans (what training is received and when) to specific job roles can greatly reduce food safety risks. Likewise, the data illustrate the value for simply providing more employee food safety training. It's hard to imagine how either of these could be achieved effectively without the use of an LMS.

In many ways then, **harnessing the power of an LMS is what makes the above recommendations even possible to implement.** Thus, it is no surprise that companies utilizing an LMS are 86% more successful at overcoming the challenge of finding time to schedule training against the demands of production. Further, companies using an LMS to manage their training program are 2X more likely to provide the highest amount of food safety training [Figure 20].

Even more interesting, equally as important to using the learning management *software* is the organization's approach to learning management as a whole. Learning management, the *discipline*, is often the realm of HR or L&D. But it is clear this should be a shared responsibility. 77% of companies with a cross-functional learning management team — incorporating leaders from each department — are able to overcome the "scheduling time for training" challenge. Whereas only 6% of companies without a cross-functional learning management team succeed [Figure 16].

#5 Implement and Utilize an Upskilling Program

Frontline workers at food manufacturing facilities are like everyone else — they want opportunity to thrive. Growing at work is a parallel path to opportunities for an improved life. This is why companies with upskilling programs, which give employees opportunities for growth, have more engaged employees who take active roles in reducing food safety risks.

- 78% of companies with mature upskilling program have highly motivated employees, compared to 43% for companies without an upskilling program [Figure 34].
- A mature upskilling program will triple the likelihood that employees will prevent problems by stopping production when a food safety risk is comprised (12% without upskilling, 37% with).
- A strong upskilling program drives confidence that employees give other employees correct instruction up to 85% — an 81% improvement over companies that don't [Figure 12].

It is important to emphasize that just having an upskilling program on paper is not the same as using it. In every measure, companies with no upskilling program at all measured the worst, and companies with mature, fully utilized programs measured exceedingly the highest. In between were companies without a program, but plan to implement one in next 12 months. These companies see a measurable boost over those without plans to add upskilling program. Most interestingly, companies with an upskilling program but not utilizing it well barely scored better than those who only plan to implement one soon, and in some cases even fared a little bit worse.

The interpretation here is that the plans to add an upskilling program give employees hope and boost their performance. But if that opportunity turns out to fizzle and not fully implemented, it is highly detrimental. Only companies actually practicing their upskilling programs see the big improvements.

A Final Word: Keep Employees Motivated and Engaged

Frontline employees who are motivated to do their job well will lead to far greater food safety outcomes. **At the end of the day, that is what this report boils down to.** Here are some of the impacts uncovered in the Global Food Safety Training Survey data.

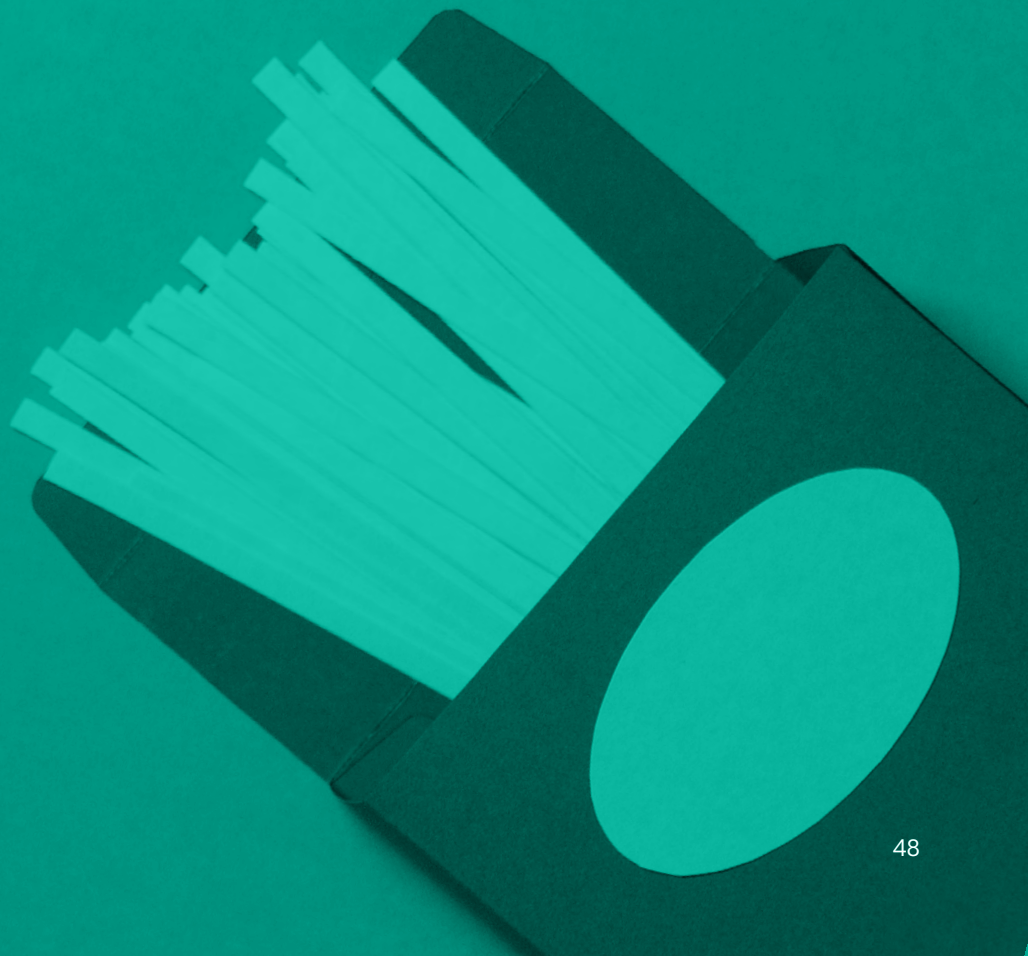
- Motivated employees are more than 2X more likely to consistently adhere to food safety programs [Figure 28]. For comparison, companies reporting unmotivated employees fall into the “not following food safety programs consistently” 88% of the time [Figure 29].
- 87% of companies with highly motivated employees will “pull the cord” when necessary to stop a potential food safety risk. If employees are not motivated, this craters to just 5% [Figure 35].
- Keeping employees motivated can reduce turnover, which is great for every department of an organization, including food safety. Only 39% of companies reporting that their employees are highly motivated rank turnover among their biggest training challenges, compared to 51% for companies without motivated employees [Figure 30].

Thankfully, the data also clearly points to how to keep employees motivated. Each of the five recommendations listed above leads to more motivated employees.

It cannot be overemphasized how critically important it is for organizations to keep frontline workers engaged and motivated to — after all, they are the linchpin to all your food safety efforts.

For further questions on the Global Food Safety Training Survey (GFSTS), any of the data in this report, or case studies of companies who have implemented the recommendations, please contact: **GFSTS@IntertekAlchemy.com**.

Appendix & Footnotes



The Global Food Safety Training Survey was designed in partnership with the study sponsors: Intertek Alchemy and Campden BRI, in partnership with BRCGS, BSI, Cultivate, SGS, Safe Quality Food Institute, and TSI.

The survey was administered electronically in February and March, 2022. A total of 2,118 individuals completed the survey, of which 84% provided answers for a single facility, and 16% provided answers that represented multiple facilities.

Below are details on survey respondents by company size, location, and industry sector. Note that in the industry sector and geographic location sections, respondents were able to select multiple industries/locations to account for the complete operations at their facility(ies).

Number of full-time (or equivalent) staff	Count	Percent
Less than 100	571	27.0%
100 - 250	519	24.5%
251 - 500	390	18.4%
501 – 1,000	263	12.4%
1,001-5,000	235	11.1%
Greater than 5,000	140	6.6%
Total	2,118	100.0

Industry Sector Representation	Count	Percent
Packaging	523	11.11%
Warehouse, Distribution	491	10.43%
Other	393	8.35%
Dairy	293	6.22%
Ingredients, Flavors, Colors	292	6.20%
Cereal and bakery	275	5.84%
Meats, fish and poultry	269	5.71%
Processed meats, fish and poultry	261	5.54%
Beverages	245	5.20%
Snacks	217	4.61%
Processed fruits and vegetables	191	4.06%
Sauces and dressings	182	3.87%
Retail	171	3.63%
Fruits and vegetables	148	3.14%

Industry Sector Representation	Count	Percent
Fats and oils	143	3.04%
Ready meals	141	2.99%
Catering, Restaurants, Hospitality	115	2.44%
Sugar confectionary	108	2.29%
Education, Consultant, Training, Audit	104	2.21%
Feed	99	2.10%
Sandwiches	47	1.00%

Location Representation	Count	Percent
USA	1,398	50.0%
Canada	264	9.4%
UK	203	7.3%
Europe: European Union	192	6.9%
Europe: non-European Union	74	2.6%
Asia (incl. China and India)	186	6.7%
Africa/Middle East	155	5.5%
Australia/NZ/Oceania	122	4.4%
Central/South America	109	3.9%
Mexico	91	3.3%

It is worth noting that if the three European categories were combined, it would represent a count of 469 (17%).

Footnotes

1. This report frequently cites data as “X% of companies _____.” Technically the survey responses are not responses from companies. The data represents the opinions from individual survey respondents, which may differ from what an official company representative may report for an official record. (Among the many reasons the survey responses are anonymous.) Perhaps this could most accurately be stated as “X% of individuals who are responsible, or at least somewhat responsible, for food safety training at their company believe that their company _____.” But for sake of simplicity, this report often distills that attribution to “X% of companies _____.”
2. The 2020 world population was roughly 7.8 billion, projected to be nearly 8 billion by end of 2022. For meals per day, we multiplied 3 meals by 7 billion rather than 8 billion, to account for the millions who are not fortunate to have three meals per day. This nets to 7,665,000,000,000 meals annually. Worldwide stats of 600 million cases of foodborne illness and 420,000 deaths from the World Health Organization. 7,665,000,000,000 minus 600,000,000 equals 7,664,400,000,000 incident-free meals.
3. It is worth noting the consistency of the first two stats year-over-year. Furthermore, in regard to food safety training budget, it is slowly decreasing each survey. On a more positive note, the number of companies providing 20 hours or more of training has nearly doubled in past four years, though still represented fewer than 1 in 5 companies. This was the first year of the survey the question on introducing new training technology was asked, thus no comparison to prior years is available.

Our company would be more productive if our employees consistently adhered to our training program.

2022	80.1%
2020	78.9%
2018	79.3%

Compared to the previous year, our food safety training budget is increasing.

2022	19.2%
2020	21.1%
2018	23.0%

Provide 20 hours or more of food safety training annually to frontline workers.

2022	19.3%
2020	11.7%
2018	10.9%

4. The top challenges to food safety training remain quite consistent across every industry sector. The below detailed table shows some small percentage differences, which are very minor considering the wide variety of businesses and challenges presented. The table lists the challenges in the order from greatest to least when taken overall as aggregate of all industries.

	Beverages	Cereal & Bakery	Dairy	Fats & Oils	Feed	Fruits & Vegetables	Ingredients, Flavors, Colors
Scheduling time for training	46.5%	49.5%	44.0%	43.4%	35.4%	46.6%	46.2%
Staff turnover	46.1%	44.0%	48.5%	39.2%	35.4%	37.8%	42.5%
Bad practices or misinformation passed from one employee to another	27.3%	29.1%	31.1%	28.7%	25.3%	27.0%	31.8%
Verifying effective training	25.3%	24.4%	26.6%	25.9%	28.3%	26.4%	29.1%
Developing/Updating current training curriculum	17.1%	15.3%	17.1%	16.1%	25.3%	17.6%	15.4%
Delivering training in appropriate languages	11.0%	16.0%	15.0%	12.6%	9.1%	23.6%	13.7%
Management commitment	18.0%	17.5%	13.0%	20.3%	20.2%	20.9%	17.1%
Organizing refresher training	15.9%	14.2%	13.7%	11.9%	15.2%	16.2%	15.8%
Identifying necessary competencies for specific roles	15.1%	15.6%	10.6%	16.1%	18.2%	14.9%	16.1%
Experienced workers retiring	18.8%	20.7%	20.8%	21.0%	20.2%	13.5%	17.1%
Resources for training delivery	13.1%	15.3%	15.0%	18.2%	19.2%	17.6%	14.0%
Retraining or remediation	11.8%	10.9%	10.9%	13.3%	12.1%	8.8%	13.0%
Cost of training	8.2%	9.5%	8.9%	9.1%	15.2%	10.1%	7.9%
Training documentation	9.4%	6.5%	9.6%	11.9%	13.1%	6.1%	9.6%
Finding competent trainers	13.1%	8.7%	13.0%	9.1%	7.1%	7.4%	9.2%
Other — please specify	3.3%	2.9%	2.4%	3.5%	1.0%	5.4%	1.4%

	Meats, Fish & Poultry	Packaging	Processed Fruits & Vegetables	Processed Meats, Fish & Poultry	Ready Meals	Sandwiches
Scheduling time for training	45.0%	45.9%	51.8%	51.3%	44.0%	46.8%
Staff turnover	45.7%	42.1%	45.5%	48.7%	53.2%	44.7%
Bad practices or misinformation passed from one employee to another	26.4%	33.5%	25.1%	23.0%	28.4%	23.4%
Verifying effective training	22.7%	24.5%	22.5%	21.5%	19.1%	23.4%
Developing/Updating current training curriculum	18.6%	19.1%	18.3%	17.6%	14.2%	17.0%
Delivering training in appropriate languages	22.7%	14.1%	13.6%	24.9%	22.7%	23.4%
Management commitment	16.4%	17.4%	20.9%	14.6%	14.2%	12.8%
Organizing refresher training	15.2%	14.5%	13.1%	17.6%	12.1%	10.6%
Identifying necessary competencies for specific roles	16.7%	15.1%	17.3%	14.2%	19.9%	17.0%
Experienced workers retiring	15.6%	18.2%	19.4%	16.9%	16.3%	21.3%
Resources for training delivery	11.9%	11.3%	12.0%	10.7%	12.1%	21.3%
Retraining or remediation	14.5%	12.0%	11.5%	10.0%	13.5%	12.8%
Cost of training	9.3%	10.3%	10.5%	8.4%	7.8%	6.4%
Training documentation	7.8%	9.4%	7.3%	10.0%	7.8%	4.3%
Finding competent trainers	8.6%	10.3%	8.9%	8.0%	11.3%	10.6%
Other — please specify	3.0%	2.3%	2.1%	2.7%	3.5%	4.3%

	Sauces & Dressings	Snacks	Sugar Confectionary	Warehouse, Distribution
Scheduling time for training	41.8%	46.5%	47.2%	47.5%
Staff turnover	44.0%	49.8%	40.7%	45.6%
Bad practices or misinformation passed from one employee to another	28.0%	23.5%	25.9%	32.4%
Verifying effective training	28.6%	27.6%	28.7%	22.6%
Developing/Updating current training curriculum	20.3%	17.5%	14.8%	18.3%
Delivering training in appropriate languages	18.7%	14.3%	12.0%	14.7%
Management commitment	13.7%	13.8%	17.6%	18.7%
Organizing refresher training	12.6%	12.9%	13.9%	12.8%
Identifying necessary competencies for specific roles	19.2%	14.7%	14.8%	14.3%
Experienced workers retiring	17.6%	21.2%	18.5%	18.3%
Resources for training delivery	14.3%	17.1%	13.9%	11.2%
Retraining or remediation	9.3%	11.1%	11.1%	12.0%
Cost of training	9.3%	10.6%	10.2%	11.0%
Training documentation	9.3%	6.9%	12.0%	9.4%
Finding competent trainers	10.4%	8.8%	12.0%	9.0%
Other — please specify	2.7%	3.7%	6.5%	2.2%

5. Repeat readers who utilize this report each year it is conducted may recall two occasions when the survey added new challenge options. Part of the peer review process between surveys is to ascertain new questions or options to add based on industry feedback. In these isolated incidents, when a new challenge option was added and received a large percentage of selections, it of course meant numbers had to drop in other selections as a result. In each isolated case it was obvious the results were because of a new option added to the survey, hence not an impact to changing circumstances in the field.

For further questions on the Global Food Safety Training Survey (GFSTS), any of the data in this report, or case studies of companies who have implemented the recommendations, please contact: **GFSTS@IntertekAlchemy.com**.