

Leave Nothing to Question

Developing the Right Food Safety Assessment Program

Three Success Factors to Consider When Adopting a Preventative Approach

Fall – Winter 2017

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EXECUTIVE SUMMARY

When a food safety issue or crisis occurs in the U.S., one of the first reactions is to look for the responsible party and the cause of the contamination. In its journey from farm to table, the food we package and prepare for public consumption is under increasing scrutiny as concerns grow about what is and is not safe to eat. For businesses and those individuals handling food on the front line of defense, the pressure is greatest to uphold high standards for food safety and security. But how do we ensure everyone is best prepared and empowered to do the right thing at the right time? The key is to partner with the right food safety assessment provider who knows how to create reliable exams for certification programs that:

1. **Allow those who handle food to demonstrate their knowledge and qualifications accurately and fairly;**
2. **Assure employers that their employees have the skills to do the job that they have been hired to do; and**
3. **Offer the means for those in the food, restaurant, and retail industries to be active participants in the safeguarding of public health and safety.**

The importance of testing food handlers and certifying food safety managers to ensure they are competent and capable to work in retail and food service cannot be overstated. This responsibility is ongoing. The food safety landscape is ever-changing, sometimes *predictably* as with the Food Code updates by the U.S. Food and Drug Administration (FDA) releases and sometimes *unpredictably* when there is an incident of foodborne illness. Exams that measure food handler skills and knowledge must be based on—and built to—the Food Code, and should change in lockstep with the current state of food safety. If exams cannot properly assess the workforce, the consequences are significant, not only to public health and safety, but also to the companies preparing, handling, and serving food that could experience the loss of reputation, revenue,

business—and even realize the negative consequences of litigation.

This *Industry Report* developed by Prometric, a leading testing and assessment authority, discusses three key success factors when developing an effective food safety assessment program as part of a preventative strategy. It focuses on the value of working with an acknowledged food safety assessment provider whose exams are backed by a team of experienced testing experts and a best-practices methodology for creating reliable, secure, and legally-defensible exams that properly validate employee knowledge and help ensure both the public health and corporate long-term business success.

INTRODUCTION

Food safety and security is a fundamental and enduring public health mandate, and proper food handling throughout the food supply and delivery chain is essential to help ensure public health. In recent years, and as all indications point in future years, growing concern over food safety has prompted greater scrutiny of safe food handling practices. While food handlers may be one of the biggest vulnerabilities in a safe food supply and delivery chain, they also represent one of the greatest opportunities to guard against foodborne illness and food safety issues. With the right examinations and training developed by responsible and qualified companies, employees in the field—ranging from food handlers to deliverers—are the first line of defense to uphold the highest of food safety and security standards.

The consequences can be significant if exams cannot properly assess knowledge levels and skills, not only to public health and safety, but also to the companies involved.

Public Health Impact: Each year an estimated 48 million Americans are stricken ill as the result of one foodborne pathogen or another—*listeria*, *E. coli*, *salmonella*, and even a number of stowaway viruses are among the culprits. For those who go to a doctor or the hospital, the collective bill is substantial.

A 2015 study by Robert Scharff, an associate professor at Ohio State University, estimates the annual cost of medical treatment, lost productivity, and illness-related mortality at \$55.5 billion.¹

Business Health Impact:

When the Grocery Manufacturers Association (GMA) surveyed three dozen companies in 2011 to measure the impact of food recalls due to unsafe food practices, more than half reported being impacted by a recall during the previous five years.

Eighteen percent of those said the hit from the recall and lost sales was between \$30 million and \$99 million; five percent said the financial impact was \$100 million or more. It was believed that the long-term reputational damage to companies carried an even steeper price tag.

What's more, there has been a significant increase in food recalls over the last 10 years with nearly a 99 percent jump in meat and

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¹Kowitz, Beth. Why Our Food Keeps Making Us Sick. Fortune. May 6, 2016.

poultry-related recalls and more than a 135 percent spike in non-meat product recalls.

To help address the growing impact from food safety related incidents, the FDA released its set of rules as part of the Food Safety Modernization Act (FSMA) in 2011. This helped to shift the focus of federal regulators and the industry from responding to contamination to preventing it. Reliable exam and certification programs are now required to adequately assess the industry's workforce knowledge of these rules by being able to:

- ✓ Represent the most up-to-date food safety requirements based on the FDA's Food Code and other regulations;
- ✓ Reflect rigorous exam creation processes that



can adequately predict test taker success with content created by subject matter experts (SMEs) and derived from applicable expertise and relevant scientific data;

- ✓ Replicate test-takers' real-world scenarios so that food handlers can meaningfully apply their knowledge; and
- ✓ Support continuous performance monitoring for frequent revisions in order to adapt to the ever changing food safety landscape, which may require exam question sets (items) be revised or removed, as others are added.

Building exams that deliver on these imperatives can help prevent foodborne illness and food safety incidents. A best-practice approach to exam creation drives structure, accountability, and repeatable/overlapping processes—accurately reflecting current food safety regulations that support preventative business strategies.

SUCCESS FACTOR ONE

Rely on a quality-driven food safety assessment provider

Know your food safety assessment provider. While food handlers may be the front line of defense in helping to ensure food safety, they are only as good as their training and credentials. The true keystone of food safety is in the development and application of food safety exams that are founded in current Food Code requirements and the necessary skills to work within the industry's food supply and delivery chain. When exams are created and implemented properly, they are predictive of safe food handling from farm to table, and they properly equip food handlers to safely do their jobs.

Above all else, quality-driven food safety assessment providers incorporate SMEs from the food safety industry into their exam creation methodology. SMEs

have in-depth experience in food safety and provide invaluable insight into the various sectors of the food safety industry. Working with SMEs when creating exams helps ensure that assessments are relevant, rigorous, and accurately reflect the test takers' ability to perform in the workplace. As content updates to exams and certification programs occur on a regular basis, consulting SMEs also results in higher-quality items and quicker turn around when updated items are required. Ongoing productive relationships with SMEs allow for exam creation to continually adapt via input from the industry to ensure changes in practice and regulation are quickly incorporated.

When selecting an effective food safety assessment provider, then, the following qualifications are essential.

They must demonstrate that they know how to:

- ✓ **Collaborate with SMEs to Provide Currency and Relevancy.** Working closely with teams of industry SMEs, food safety assessment providers can stay up to date on current food safety events, as well as future food safety regulations and requirements. They begin the exam creation and validation process with recruiting and vetting SMEs who can provide industry expertise. They also keep these SMEs involved throughout the exam design, development, construction, and analysis process—utilizing their knowledge to constantly create new assessments and items that are relevant to the current food landscape. This helps to ensure that the exams are never in need of a major overhaul, which costs more time and money and puts the public and business at risk.
- ✓ **Stay In Touch with the Industry.** Food safety assessment providers should have a thorough understanding of the industry's needs, the workforce, and necessary job skills. Exams should be reflective of real-world scenarios of food handlers by obtaining feedback and insights based on their experiences on the ground. This allows food safety assessment providers to tailor exams to the test taker, marrying the prerequisite requirements of safe food handling to the implementation of these practices. Exams should also reflect the latest innovations in exam creation, and food safety assessment providers must continuously push the boundaries on industry-changing test development solutions.
- ✓ **Meet Industry Standards.** Food safety assessment providers should recognize Educational Testing Service® (ETS) and the Equal Employment Opportunity Commission (EEOC) to serve as best-in-class standards in providing criteria for the

evaluation of exams, testing practices, exam design, and performance/results evaluation. These standards are designed to confirm exams demonstrably meet explicit criteria in multiple areas of basic importance.



- ✓ **Maintain A Robust Item Repository.** Food safety assessment providers must maintain a large data repository of items for each exam version to safeguard the content of the exam while making sure the most relevant information is incorporated. Additionally, the food safety assessment provider's ability to vary items to specific scenarios allows for more customized experiences and ultimately more success in compliance.
- ✓ **Invest in Continuous Evaluation.** Food safety assessment providers should conduct extensive evaluations on the performance of their items, both before they are finalized and after, to verify they accurately measure test takers' knowledge and capability.

Using a trusted food safety assessment provider that consistently develops rigorous, reliable, and relatable assessments—the 3 Rs—is the only way to confirm that individuals have the knowledge and skillset to perform in the workplace with the right answers. It is essential to know that the food safety assessment provider checks all the necessary boxes when creating exams, so that passing the exam is reflective of ability and indicates that the test taker has the knowledge to be successful in the field.

SUCCESS FACTOR TWO

Develop rigorous, reliable, and relatable items that are developed, tested, and continuously evaluated to correlate with market needs and trends

Once a trusted food safety assessment provider is identified, an equally important safeguard to a safe food supply and public health is ensuring exams ask the right

questions and reflect the right process that experts use to develop, test, and implement the item within an exam.

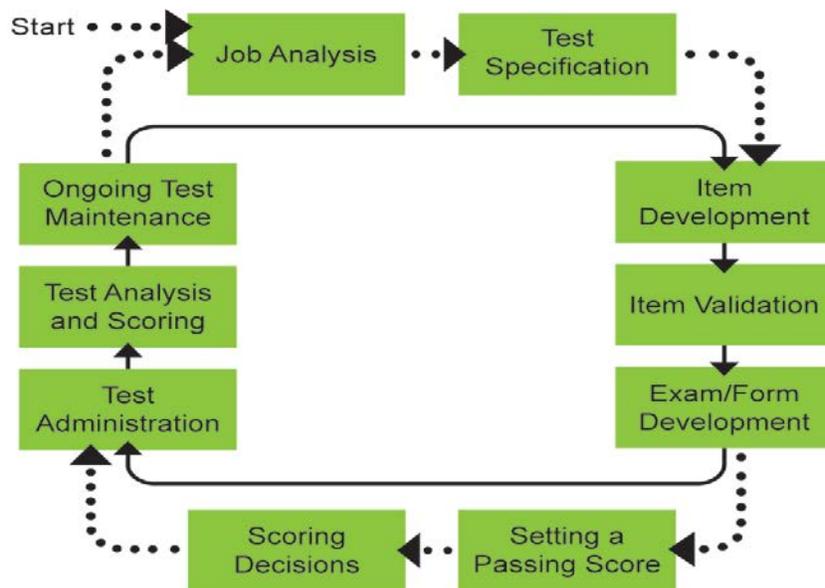
Exam items must demonstrate correlation to market needs and trends as well as be written to serve a variety of professional interests.

To create reliable and accurate exams, food safety assessment providers must begin with a thorough process for developing and vetting items. In addition, food safety assessment providers should invest time and resources on a continuous basis to ensure their current items are relevant as well as write new items to:

- ✓ Be responsive to current market needs;
- ✓ Be inclusive of diverse professional interests to better serve restaurants, retail establishments, grocers, culinary schools, manufacturers, and processors;
- ✓ Maintain adherence to American National Standards Institute (ANSI), the organization that oversees U.S. standards for consumer protection, when accrediting job skills analysis and existing specifications; and
- ✓ Accurately reflect FDA Food Code and food safety guidelines.

If properly designed, tested, and updated, food safety exams can help significantly decrease incidents throughout the food supply chain.

The most effective way for food safety assessment providers to help ensure the relevance and accuracy of exam items is by using a rigorous exam creation cycle. The cycle, described in further detail in *Graphic 1*, should measure what test-takers know, what they do, and how those fit together to create a blueprint that informs the items, the exam, and its validation. A thorough exam creation cycle provides a step-by-step process to make sure exams are asking the right questions that align with current industry standards and provide information that individuals can leverage in the workforce.



Graphic 1: Exam Creation Cycle

A quality-driven food safety assessment provider should incorporate these steps to help ensure exams are complete and accurate.

SUCCESS FACTOR THREE

Create exams that properly assess the workforce

Food safety exams give employers the peace of mind that the employees they hire can do the job that they were trained to do and help prevent food safety incidents from happening.

It is not enough for food safety assessment providers to develop items and exams; they must factor in best practices for test taking and learning. They also need to understand how the workforce processes information and works. By combining all of these factors, food safety exams function as an effective two-way communication tool sharing knowledge with test takers while also collecting information about exam performance. This feedback loop relies on conducting a thorough job market skills analysis, and also again on having a comprehensive exam creation process that supports exam content validity and reliability of results.

To confirm that exams properly assess the workforce, every exam should:

- ✓ **Solicit Industry Input:** The process of exam creation must continually be adapted via input from the industry to ensure changes in practice and regulation are quickly incorporated. This requires food safety assessment providers to invest in closely collaborating with industry-leading SMEs as well as food handlers in order to be relevant to the food safety workforce.

- ✓ **Use Interactive Scenarios:** In the age of digital testing, the best way to properly assess the workforce is to provide test takers with interactive scenarios that mirror real life situations. This type of testing enhances the skills and knowledge that can be assessed and can replace hands-on practical testing.
- ✓ **Create a Feedback Loop and Adaptable Exams:** A critical component in creating effective exams is to continuously review the content and incorporate feedback from test takers. By reviewing feedback, food safety assessment providers will then be able to enhance the exams and continue to adapt them to make them relevant to the workforce and the industry.

As the workforce continues to change, so should food safety exam and certification programs. Food safety assessment providers should always identify the important knowledge and skill areas of the industry workforce through panel-based meetings, interviews, and/or mass-distribution surveys. Then, by supplementing this iterative process with SMEs to the item writing and exam creation processes, effective food safety assessment providers can pinpoint the information to be developed and implemented into the exams. While it is essential to understand the industry landscape, it is equally important to understand how the industry workforce would best respond to different types of testing instruments, and then using the information for practical use.

CONCLUSION

Food safety assessment providers who develop reliable exams help protect the public health and businesses throughout the food supply and delivery chain

Safe food handling is the key to preventing and avoiding foodborne illness and protecting the public from food safety incidents. There's no second guessing what's safe.

State food employees, however, cannot bear that sole responsibility without the proper knowledge and continuous education. These professionals need the

support of rigorous, reliable, and relatable food safety certificates and certification programs in order to be equipped and resourced for their jobs.

Quality-driven food safety assessment providers adopt a best-practices approach for creating exams and certificate/certification programs that demonstrate a thorough understanding of behavioral learning, the job

skills required and compliancy with the latest FDA Food Code—necessary safeguards for helping to ensure those who work in the food service industry have mastered the basic skills and principles necessary to protect the public against foodborne illness in both the retail and restaurant environments.

It is critical to use a reliable food safety assessment provider to help guarantee that test takers are capable of safely executing their jobs. An effective exam should have a content creation process that follows globally

recognized testing and assessment standards, features extensive item review, and adheres to a best-in-class approach for test administration, delivery, and maintenance. With the stakes so high, companies need to protect the health of their consumers as well as protect the health of their business. More and more, they need to realize the value of exams and certifications—collaboratively working with recognized testing and assessment experts in identifying the right food safety exams for their employees as well as other stakeholder groups.

Keys to Success	Essential Qualifications	
A quality-driven food safety assessment provider	<ul style="list-style-type: none"> •Collaborate with SMEs to provide currency and relevancy •Stay in touch with the industry •Meet industry standards •Maintain a bench strength in talent •Invest in continuous evaluation 	✓
Rigorous, reliable, and relatable exam content	<ul style="list-style-type: none"> •Be responsive to market needs •Be inclusive of varied professional interests •Adhere to ANSI accredited job analysis and existing specifications •Accurately reflect FDA Food Code and food safety guidelines •Use a rigorous exam creation cycle •Continuously evaluate exams to correlate with market needs and trends 	✓
Exams that properly and securely assess the workforce	<ul style="list-style-type: none"> •Solicit industry input •Use interactive scenarios that mirror real life situations •Create a feedback loop and adaptable exams that can easily be modified to workforce feedback and the ever-changing industry 	✓

ABOUT THE AUTHOR: PROMETRIC

For more than 50 years, Prometric has been a leader in the testing and assessment industry with extensive experience in implementing new and evolving certification and licensure programs. Prometric continuously evaluates methodologies and assessments by working with SMEs to develop relevant topics that result in accurate, reliable, relevant, and secure examination programs. Prometric adheres to industry best practices for the development and delivery of examinations and assessments using a process that is repeatable and overlapping. This unique formula allows Prometric to adapt quickly to the current industry landscape. When changes are required, Prometric works with SMEs, regulators, and test-takers to identify the needed adjustments and translates those into food safety exam items to quickly and accurately meet the demands of the industry.

The core of Prometric's exam creation process is creating credible, valid exams that wholly adhere to industry practices and support content validity and reliability of results. Through consistent attention to

detail by Prometric's professional content development and psychometric staff, in collaboration with SMEs, Prometric's process is adapted using input from the industry to ensure changes in practice and regulation are quickly incorporated. Prometric continually:

- ✓ Evolves its best practices in exam development;
- ✓ Maintains valid, legally-defensible exams;
- ✓ Evaluates its methodologies; and
- ✓ Creates tools for effective and efficient testing and assessment.

With Prometric's rigorous and extensive exam creation methodologies and understanding of behavioral learning, test takers are more prepared to help guarantee food safety success in the workplace as a means to prevent incidents from happening in the first place.

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