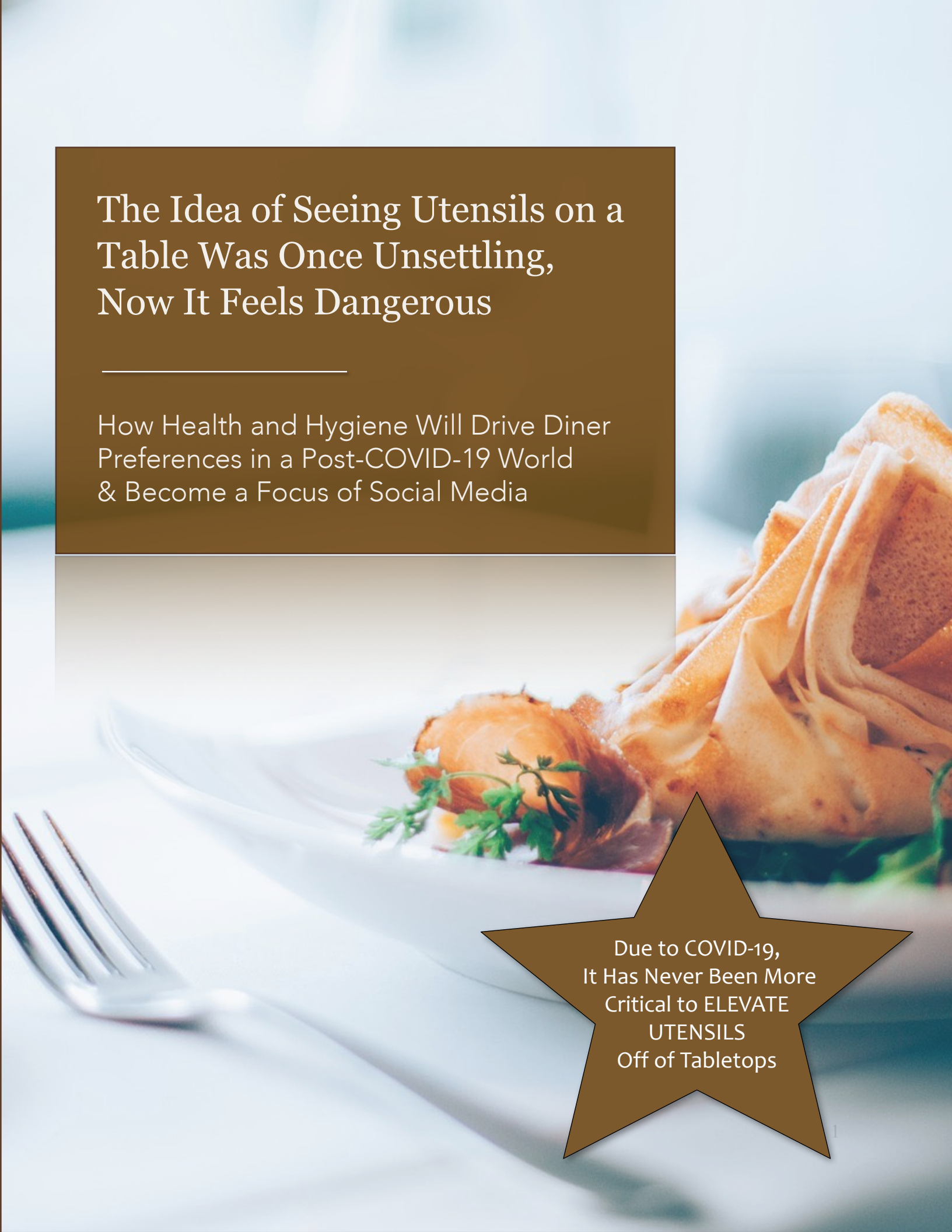


# The Idea of Seeing Utensils on a Table Was Once Unsettling, Now It Feels Dangerous

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How Health and Hygiene Will Drive Diner Preferences in a Post-COVID-19 World & Become a Focus of Social Media



Due to COVID-19,  
It Has Never Been More  
Critical to ELEVATE  
UTENSILS  
Off of Tabletops

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# INTRODUCTION

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In this report, we will take a detailed look at the status of cleanliness, hygiene, and environmental health in regards to restaurant flatware and tabletops. We will cover all segments of the dining industry and will pay particular attention to the full service restaurant category, which includes casual dining, family dining, and fine dining. The research contained herein consolidates different datasets pertaining to restaurants and the food industry in the U.S. We will share key findings on diner experiences, diner perceptions, health risks, and health risk trends in foodservice, like food-borne illnesses and disease outbreaks. Our focus will be on outbreaks that occur as a result of the careless handling of flatware and under-sanitization of utensils and tabletop surfaces in the restaurant and cruise ship industries.

Throughout the research, a detailed and statistical approach has been taken to identify front of house risks in the restaurant industry. We will analyze the impact that these public health risks have on the general well-being of consumers, the reputation of foodservice businesses, and the overall impact on the economy.

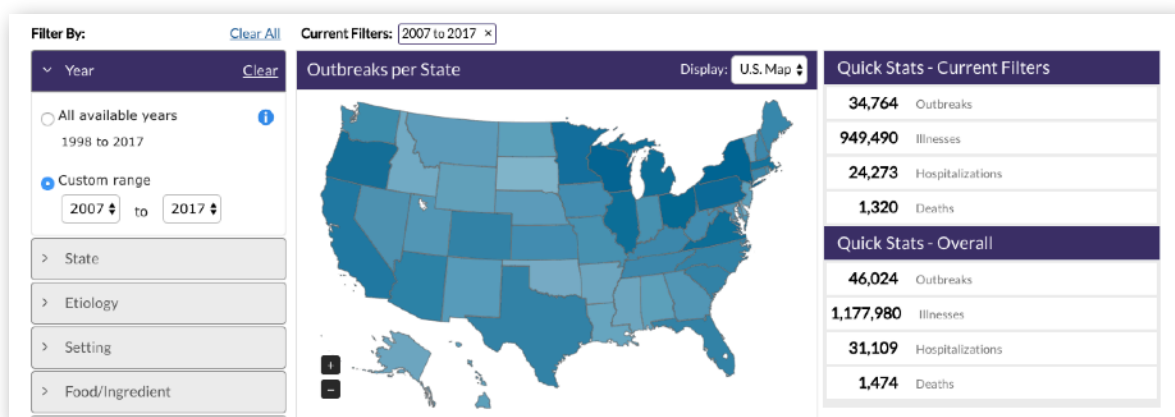
Lastly, an overview of the entire industry will be discussed to establish a conservative market size and market necessity for an innovative flatware rest product that aims to solve these tabletop sanitation and contamination issues – which clearly endanger the public. This innovative solution offers patent-pending Lift Technology, which has been researched by the University of Arkansas Food Science Department and showcased by the Journal of Environmental Health.<sup>1</sup> The product enhances customer engagement from both an aesthetic and a hygienic perspective and motivates enthusiastic diners to share, post, and tweet about their elevated experiences across all social media platforms.

For more detailed information about the product and the product's research, please visit the website: [www.DiningElevated.com](http://www.DiningElevated.com).

# CONTAMINATION & FOODBORNE ILLNESS IN THE U.S.

The [CDC estimates](#) <sup>2</sup> that each year roughly 1 in 6 Americans (or 48 million people) get sick, 128,000 are hospitalized, and 3,000 die of food-borne illness. According to the [World Health Organization](#),<sup>3</sup> almost 1 in 10 people are estimated to fall ill every year, globally, from food-related contamination and 420,000 die as a result. Tragically, one-third of those deaths are of children under the age of five.

Incidents of food contamination are more common than you think. Food can become contaminated with bacteria, viruses, parasites, or chemicals from any number of sources. The [Centers for Disease Control and Prevention](#),<sup>4</sup> offers a state-by-state, year-by-year, and contaminant-by-contaminant calculator that breaks down the occurrences of outbreaks, illnesses, hospitalizations, and deaths by the numbers.



The [US National Library of Medicine National Institutes of Health](#) <sup>5</sup> used data from active and passive surveillance and other sources to estimate that each year 31 major pathogens acquired in the United States caused:

- 9.4 million episodes of food-borne illness
- 55,961 hospitalizations
- 1,351 deaths

**EVERY YEAR ... Before COVID-19**

#### % OF PATHOGENS CAUSING ILLNESS

58% Norovirus  
11% Nontyphoidal Salmonella  
10% Clostridium Perfringens  
9% Campylobacter Spp.

#### % OF PATHOGENS CAUSING DEATH

28% Nontyphoidal Salmonella  
24% Toxoplasma Gondii  
19% Listeria Monocytogenes  
11% Norovirus

#### % OF PATHOGENS CAUSING HOSPITALIZATION

35% Nontyphoidal Salmonella  
26% Norovirus  
15% Campylobacter Spp.  
8% Toxoplasma Gondii

Dr. Charles Gerba, Dr. Susana Yepiz-Gomez, and Dr. Kelly R. Bright completed a research study titled, Identity and Numbers of Bacteria Present on Tabletops and in Dishcloths Used to Wipe Down Tabletops in Public Restaurants and Bars.<sup>6</sup> As the title suggests, their effort focused on studying how effective cleaning methods are on restaurant tables and bar surfaces. Using standard cleaning solutions, protocols, and dishcloths, their evidence showed that the heterotrophic plate count bacteria (HPC) present on restaurant tabletops and bar tops were 45-fold greater *after* cleaning with the dishcloths than prior to cleaning. The researchers concluded: "the implication of dishcloths IN THE CONTAMINATION OF tabletops *through* cleaning suggests that current monitoring of linen sanitation solutions are clearly inadequate."

This research confirms the greatest fears that diners have about the unreliable nature of tabletop cleanliness. If standard cleaning methods, in fact, *deposit* 45 times MORE bacteria onto a table surface, how could that same method remove the list of other dangerous pathogens that put 55,961 people in the hospital every year?

Given this evidence, COMPILED PRIOR TO THE COVID-19 OUTBREAK, the idea of seeing dining utensils set on a “freshly wiped” restaurant table or bar top was stomach turning. TODAY, CONSUMERS WILL SEE THIS AS POTENTIALLY DEADLY.



A food-borne illness or cross-contamination incident can cost restaurants millions of dollars. Decreased revenues, legal fees, lawsuit settlements, diminished sales and customer loyalty, increased insurance premiums,<sup>7</sup> and damages to reputations could permanently shutter a business. According to a study by Ohio State University Professor Robert Scharff,<sup>8</sup> food-borne illnesses cost between \$55.5 to \$93.2 billion in medical treatments, lost productivity, illness-related mortality, and overall economic damage to the food service industry.

Johns Hopkins Bloomberg School of Public Health<sup>9</sup> estimated that the cost of a single food-borne illness outbreak at a fast-casual establishment could cost **up to \$2.1 million**. Casual-dining incidents could cost **up to \$2.2 million**, and fine-dining restaurants could experience losses of **up to \$2.6 million per incident**.

With 48 million Americans<sup>10</sup> getting sick each year from food-borne illness (per CDC), reducing food-borne illness by just **1%** would prevent approximately **500,000 people** from getting sick each year in the US. Imagine taking steps to reduce food-borne illness even further. Achieving a **10% reduction would save five million people from getting sick or worse**.



*“Investing in food safety is one of the smartest things that restaurants and food service organizations can do. The expense, time, and energy necessary to implement – or elevate – your food safety protocols won’t be overwhelming, and it’s crucial to your business success. Restaurants must prioritize food safety, utilizing the most efficient and effective tools to protect the health of their guests and employees.*

*When restaurant owners tell me, ‘I can’t afford the investment,’ my response is always, ‘You can’t afford not to.’”*

– Francine L. Shaw president of Savvy Food Safety, Inc. <sup>11</sup>

## CRUISE SHIPS – CONTAMINATION & PREVENTION

Likened to a floating, self-contained island with an exceptionally high population, a cruise ship is unfortunately a hotbed of pathogen transmission. With nearly every square inch of the vessel being touched by thousands of hands every day, the cruise industry must work extremely hard to maintain a safe and sanitary environment for passengers. While most cruise lines adhere to a policy of disinfecting all surfaces in high traffic, high touch areas up to 4 times per day, the risks are ever present.

The CDC maintains up to the minute data on disease outbreaks on cruise ships <sup>12</sup> through their VSP or Vessel Sanitation Program. In the cruising industry, **norovirus is enemy #1**. Given it’s almost ubiquitous presence on every type of surface, it’s long shelf-life, and its highly contagious nature, **norovirus causes an estimated 19 to 21 million cases of severe gastro-intestinal illness in the U.S. every year.** The Infectious Diseases Society of America reports <sup>13</sup> that out of those cases, 56,000 to 71,000 lead to hospitalizations, and 570 to 800 tragically end in death.

Cruise lines are required to report disease outbreaks that affect more than 3% of onboard passengers to the Centers for Disease Control and Prevention (CDC). Given the high stakes involved, all precautions should be taken to eliminate even the smallest chance of pathogen transmission to passengers.

Dr. Kristen Gibson of the University of Arkansas' Food Science Department <sup>14</sup> has spent the majority of her scientific career studying norovirus.<sup>15</sup> In September 2018, Dr. Gibson undertook research on a simple, common sense solution to preventing the transmission of the virus in food service environments. With a project called "Flatware Rests to Reduce the Risk of Microbial Cross-Contamination from Table to Flatware" <sup>16</sup> she arrived at a definitive result.

The experiment was designed in duplicate with biological replicates as well as positive and negative control samples for a total of 98 samples per microorganism, totaling 294 testing iterations. In a rare finding for a scientific study, the mechanical barrier provided 100% effectiveness against the transmission of norovirus, E. coli, and Salmonella. The utensils tested remained completely unaffected and safe for use when paired with the small barrier devices. This research was then selected for presentation at the National Environmental Health Association (NEHA) annual conference, July 2019. <sup>17</sup>

While simple in concept, the results speak for themselves. The barrier device provides another layer of protection for both the cruising public and the cruise industry during the most vulnerable, transmission-sensitive time – EATING.





# PROTECTING THE FOOD ALLERGY COMMUNITY

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In January 2019, The Journal of the American Medical Association<sup>18</sup> (JAMA) published the results of exhaustive research conducted by Ruchi S. Gupta, MD, MPH, Christopher M. Warren, BA, and Bridget M. Smith, PhD, exploring the “Prevalence and Severity of Food Allergies Among US Citizens”. The results of the study were nothing short of confounding.

Approximately 32 MILLION people in the United States have food allergies.<sup>19</sup> That’s more than DOUBLE the number of any data reported before 2019. **Nearly 11% of Americans age 18 or older (more than 26 million adults) have food allergies.** The other 6 million sufferers are children, totaling 1 in 13 ... or at least 2 children in every classroom.

Every three minutes, a food allergy reaction sends someone to the emergency room. Each year in the U.S., 200,000 people require emergency medical care for allergic reactions to food or incidents of cross-contact and cross-contamination.



This health epidemic is extremely costly for families and health care systems, it’s disruptive to daily American life, and it’s outright scary and life threatening.

A significant number of food-based allergic reactions occur in restaurants. A 2007 survey by the Food Allergy & Anaphylaxis Network<sup>20</sup> found that 34% of food allergy affected respondents had experienced at least one food allergic reaction in a restaurant, and of those, 36% had experienced at least three reactions.

Another study conducted in 2008 revealed that nearly HALF of FATAL food allergic reactions <sup>21</sup> over a 13-year period were caused by food that was made and served in a restaurant or other food-service establishment.

An investigation of peanut and tree nut allergic reactions in restaurants or other food service establishments found that in 45% of cases, the food allergic customers had actually alerted the restaurant to their allergy in advance.<sup>22</sup> The same investigation revealed that in 78% of the episodes, someone in the establishment knew that the food contained the allergen as an ingredient.

According to food therapists, people who suffer from food allergies are highly anxious while eating out, which is easy to understand. Sometimes allergic conditions can be so acute that if a single particle of an allergy-inducing protein were ingested, or even *inhaled*, it could result in a life and death situation for a diner.

Given that tabletops are rarely, if ever, cleaned to the degree that they should be, (see Dr. Charles Gerba's groundbreaking research on tabletop cleaning statistics<sup>23</sup>) microscopic proteins could easily be left behind from a previous customer's meal. With the vast majority of restaurant table settings typically placing bare utensils onto



bare tabletops and tablecloths, microscopic food particles could make immediate contact with a fork, knife or spoon. It would take only a moment of cross-contact to endanger over 11% of the American population.

Setting tables with utensils placed directly on table surfaces is currently the industry standard, but that must change. A food safe physical barrier must be required, and a napkin is NOT enough, as Dr. Gerba has previously suggested.<sup>24</sup>

Providing a clean, elevated surface upon which utensils can be set would eliminate the cross-contact danger entirely. A small, portable, utensil-elevating product, like a flatware rest, can act as an effective barrier against contamination at every place setting.<sup>25</sup> This item can be washed and sterilized with every use, like utensils, and give dining customers the peace of mind they deserve.

Standardizing the addition of tabletop flatware rests – for use before, during, and after meals – can protect the 32 million Americans suffering from food allergies and anxiety as well as the general public that seeks a hygienic dining experience.



Paying close attention to this population's food safety needs will boost a company's **bottom line**. Not only will restaurants avoid causing their customers direct physical harm and save themselves the devastating cost of potential lawsuits, they'll gain loyal return guests by earnestly addressing their concerns. A recent Seven Rooms study found that one in five Americans (20%) would not return to a restaurant if the waiter or waitress did not take their food allergies into account when providing food recommendations.<sup>26</sup>

## MODERN DINER PSYCHOLOGY

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Understanding modern diner psychology is essential to designing a restaurant customer experience that will be profitable and worthy of investment. The food service industry must identify exactly what draws customers into a restaurant in order to elevate the diner's experience once they arrive. Never in the history of food service has customer engagement been more expected by diners.

While proprietors may focus spending marketing and design dollars on trendy bells and whistles believing these will 'wow' guests, the research we present in this report points to one topic that is of greater importance to diners than any other. That topic is cleanliness and hygiene. Study after study shows that the most important factor in customer satisfaction and return rates of restaurant guests are how clean, sanitary, and well managed the entire operation looks and feels.

As Seung Ah Yoo of the Virginia Polytechnic Institute states in her report, Customer Perceptions of Restaurant Cleanliness: A Cross Cultural Study<sup>27</sup>, *"Restaurant cleanliness is considered the most significant condition when customers evaluate overall restaurant quality or decide their level of satisfaction."*

## DATA ON DINER CONCERNS ABOUT CLEANLINESS

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Diners have deep-seated concerns about cleanliness in restaurants. This stems from a natural, internal warning system designed to keep us safe and free from illness. The reality is, though, that there's a tremendous amount of supporting evidence to back up this source of worry and stress – as we are all well aware of in our post-COVID-19 reality. According to Dr. Charles Gerba,<sup>28</sup> an internationally recognized microbiologist and contamination researcher from the University of Arizona, almost all surfaces related to a restaurant's tabletop have astronomically high levels of illness-inducing bacteria, spores, and microorganisms. In fact, most restaurant utensils and tabletops rank at No. 3 and No. 4 for the most problematic sources of contamination. Toilets didn't even make his list of the Top 6.<sup>29</sup>



## THE GRIPE-O-METER RESTAURANTS



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A survey of 1,003 adults by Consumer Reports National Research Center in March 2014<sup>30</sup> found that UTENSILS came in at #1 as the issue that restaurant patrons complained about most – 76% of respondents said the forks, spoons, and knives were not up to acceptable standards.<sup>31</sup> This widespread diner consensus topped all other dining concerns and service annoyances, ranking higher than dirty restrooms and food dissatisfaction.

Feeding directly into this discussion are the circumstances surrounding a small baby who poured scalding water onto himself at an Applebee's in Oct. 2018.<sup>32</sup> His parents had reportedly only ordered the hot water to clean their utensils before eating. Now the family is suing Applebee's for negligence.

Research on customers' hospitality experiences commissioned by P&G, shows that hotels and restaurants could increase revenue if they improved their hygiene standards.<sup>33</sup>

Cleanliness, often overlooked by business owners in the flurry of keeping up with customer demands, is of utmost importance in building repeat loyalty.

According to P&G – based on just ONE unclean area of a restaurant or hotel:<sup>34</sup>

- 63% of customers will question cleaning practices everywhere else
- 22% would leave immediately based on a negative hygiene experience
- 66% of diners would not return if the establishment had unhygienic toilet facilities, even if a customer had an overall great experience

A staggering 91% of the 2,000 customers questioned agreed that cleanliness is the mark of a good food or hospitality business. Hygiene is so important to customers that 85% agree that a clean restaurant is just as important as food quality.<sup>35</sup>

First impressions are key to encouraging repeat business. It's not surprising that the top three elements people first notice in a hospitality establishment relate to hygiene. Top turn-offs noticed immediately upon entering a hotel or restaurant:

1. Unpleasant / bad odor (56%)
2. Dirty or sticky floors / carpets (27%)
3. Stained, spotty or dirty dishes, glassware or cutlery (27%)

Social media can drive traffic into a restaurant,  
But it can also have the equal and opposite effect on it as well:

- 85% said they were likely to tell their friends and family about a poor hygiene experience
- 30% of respondents said they would give a hotel or restaurant a negative review due to poor cleanliness
- 56% say they normally choose where to eat based on a recommendation by a friend





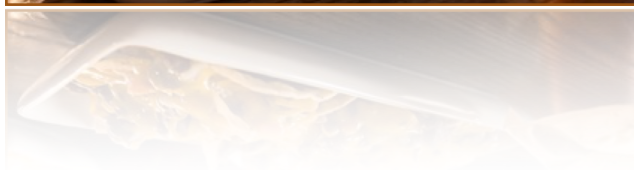
In 2012, researchers at Ohio State University Center for Clinical and Translational Science conducted studies proving that gastroenteritis-causing viruses are likely present on all public silverware, even after they've been cleaned.<sup>36</sup>

To “simulate a worst-case scenario,” researchers at Ohio State University infused cream cheese and reduced-fat milk – both of which are difficult to properly clean off of tableware – with disease-causing murine norovirus (MNV-1), Escherichia coli (E. coli K-12), and Listeria innocua (L. innocua). They then coated ceramic plates, forks, and glasses with the infectious mixture and put them all through either a machine wash or a hand wash. The researchers found that, *“Norovirus particles survived both washing techniques and were not significantly reduced by either wash method.”*

In an ideal scenario, wait staff and cleaning staff may attempt to make tables and utensils completely sanitary at the beginning of each day. However, once the table is turned even a single time, the game changes. It’s the human factor that introduces added harmful bacteria. *Hand after hand touching all items and surfaces on a table, every day, is where contamination in the front of the house originates.* A proprietor must make certain that all bussing and wait staff have taken time to properly sanitize the table and everything on it. In the hustle and bustle of a mealtime rush, though, this rarely happens with scientific precision. There are simply millions of bacteria, spores, and microorganisms that are water-borne, air-borne, and surface-borne.



A table may have been sterile ten minutes ago, yet something will always happen to cause the table to be compromised. Sometimes this is not even the fault of the restaurant. The surfaces, themselves, are carriers ... if only from the people who left the table or bar top four minutes ago.

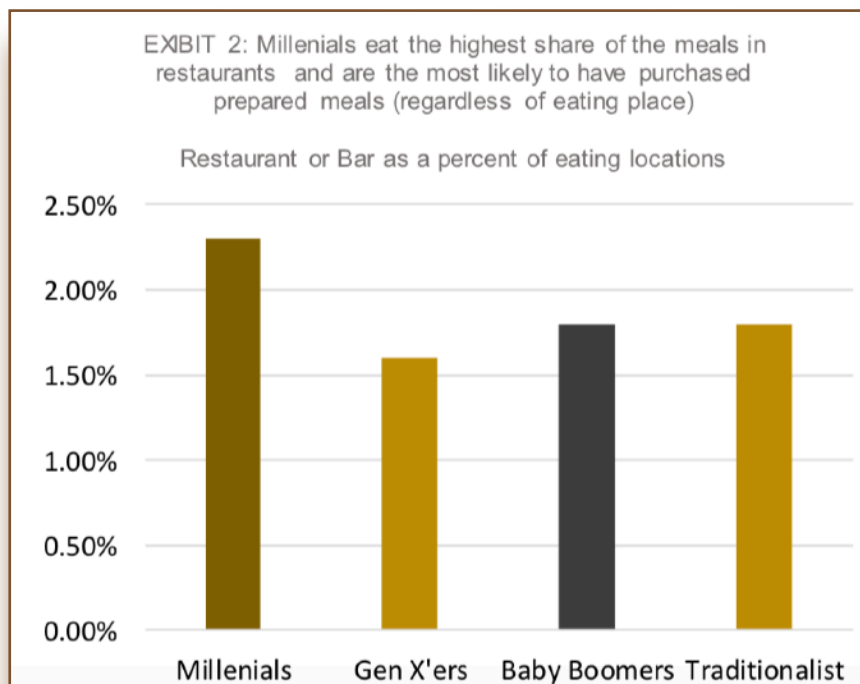


## MILLENNIALS – HEALTH, HYGIENE & EATING OUT

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Millennials are currently the largest living generation on the planet. Beginning in 2019, they eclipsed baby boomers as the generation with more spending power, according to analysts at Bernstein. Composed of people born between 1981 and the mid-2000's, they are now in their early 20s and 30s, and they're rapidly reshaping American food culture and business, as studied by the USDA in 2017.<sup>37</sup>

Depicted below is a graph from Bernstein that shows how Millennials approach food differently from all prior generations. They are more likely to eat their meals in a restaurant and purchase prepared meals than any other generation. In 2018, Inc.com explored how they're dramatically changing the food industry.<sup>38</sup>



In 2016, Forbes reported that Millennials spend 44% of their food dollars - or \$2,921 annually - on eating out,<sup>39</sup> according to the Food Institute's analysis of the United States Department of Agriculture's food expenditure data from 2014.<sup>40</sup> By contrast, baby boomers spent 40% of their food dollars on eating out or \$2,629 annually.

Millennials are less willing to prepare their own meals despite having more free time to do so than their parent's generation. That said, they care about what happens to their food at every stage of the process – from growing it organically to preparing it in the most hygienic fashion possible.

According to the Organic Trade Association, 52% of organic consumers are now Millennials.<sup>41</sup> These folks also eat 52% more vegetables<sup>42</sup> than their older counterparts as tracked by the market research firm, The NPD Group in Chicago. Millennials are highly aware of their eating habits, which have entrepreneurs and marketers taking note. The good news – no other generation has been more willing to put their money where their mouth is.

The Nielsen Global Health and Wellness survey of 30,000 consumers in 60 countries found that 32% of Millennials would be willing to pay a premium for "healthier products" compared with 21% of Baby Boomers.<sup>43</sup> The trend only continues with increasingly younger consumers, stating that 41% of those under 20 would be willing to pay more, as well.

On the experiential side of dining, Verdict Foodservice did a study on the subject titled, "Millennials have started to take over the foodservice industry, but what do they want from their dining experience?"<sup>44</sup> According to research by global law firm CMS, Millennials now make up nearly a third of restaurants' annual revenue and spend 13% of their total income on eating out.

The report surveyed over 5,000 Millennials in 18 countries and gathered the views of over 170 leaders in the hotel and restaurant sector. The survey found that:

- 53% of Millennials believe that "a new experience" is an important feature when choosing a place to eat
- 52% of Millennials say they value unique food
- 36% report that they would pay more for outstanding service in a restaurant

Millennials like to connect with their peers through social media and share their food experiences on Instagram, Facebook, and Twitter. Creating an experience-based atmosphere – through unique décor, show-stopping food presentation, and attention to hygienic details – can make restaurants stand out and be shared by this generation.



As digital natives, Millennials use social media to make a large majority of their daily decisions. In fact, 65% of Millennials use social media reviews and conversations to make dining decisions, according to the professional agency Youth and Young Adult Connection.<sup>45</sup> Focusing on Millennials aged 18 to 24, here are more stunning insights from their research:

- Millennials spend around \$247 billion a year at restaurants
- Millennials rely on word-of-mouth and Yelp suggestions for restaurants
- Millennials are now 'checking in' at restaurants on Instagram & Foursquare
- 32% of Millennials look at restaurant menus online via a smartphone
- Millennials are more likely than other age group to eat in large groups



A report called *"Turning a Meal into an Experience"* produced by independent research firm [YouGov](#)<sup>46</sup> surveyed 1,108 individuals. Out of the survey group, 22% of respondents reported that they've gone to a restaurant based solely on what the food or atmosphere looked like on social media.<sup>47</sup>

Piggy-backing on the idea that Millennials care tremendously about how their food is handled, from organic production to hygienic preparation, **Millennials are sometimes called "The Germaphobe Generation"**. A study conducted by Choice Hotels International in 2015 found that 61% of Millennials carry hand sanitizer while traveling.<sup>48</sup> This example demonstrates how important health and hygiene are to them and illustrates the measures taken to consistently ensure their own wellness.



Online polling platform, [True Public](#),<sup>49</sup> compiled data from four of the living generations – Baby Boomers to Gen Z – and asked how concerned each was about the concept of germs in their environment. As might be expected, the Millennials and Gen Z'ers scored the highest. The vast majority of both groups, upwards of 85% or higher, were actively concerned about germs.

Taking it further, 9% of the Millennials classified themselves as **'germaphobes'** and the younger Gen Z group doubled

that number at 18%. The trend of increased awareness of hygiene will continue to rise. Offering self-aware and well-informed diners the tools and experiences they need to feel comfortable and protected at the dining table is a necessity today. When you provide design-forward tools that enhance their experience, protect their health, and inspire them to share, tweet, and post about it, it's a win for everyone.



# INVESTMENTS IN CUSTOMER EXPERIENCE

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Customer satisfaction is the prime driver of growth in the restaurant industry. This is especially true in the modern age where a few unhappy reviews on sites like Yelp is enough to send your revenues into a tailspin.

When it comes to restaurant ethos, you could say that the tabletop is the heart of the dining experience.<sup>50</sup> The dining atmosphere, the interaction with the serving staff,



the food, the plating, the small, thoughtful details all meet here. As guests take in the pleasure of their interactions and their meals, the four corners of the tabletops tie the dining and hospitality experience together.

Whether restaurateurs stick closely to tradition or aim to completely rework the definition of tabletop design, their choices have an impact on diners' perceptions of their restaurants. Diners looking for a more relaxed atmosphere can find it reflected in casual, unfussy tableware. Those searching for an upscale, classic experience can find it in crisp linen tablecloths, ornate utensils, and impeccable tableware accessories.

Today, the average build out cost across the entire industry hovers somewhere just above \$3000 per seat.<sup>51</sup> It's not uncommon for restaurants to focus the majority of their budgets on the back of house kitchen equipment and top of the line chef's toys.<sup>52</sup> The interior design plan for the dining room space usually gets allotted next. And while one might think that dinner plates, glassware, flatware, and table service accessories would be included in an interiors budget, more often than not, these most-customer-facing items are handled last, almost as an afterthought.



A minimalist place setting has become more and more commonplace and is the easiest way to go for restaurateurs. Budget limitations combined with a desire to reduce distractions in the front of house often mean that restaurants opt for a table service style that leans toward simplicity. However, chefs will attempt to inspire the imaginations and whet the palates of diners from the moment they enter the dining room. By providing a blank canvas, restaurants can ignite a sense of wonder and anticipation. Or by assembling a Jackson Pollock feast for the eyes, tabletop decor can surprise and entertain. Either way, the dining table, itself, is the stage upon which the theater of food is animated.



Fine dining restaurants have traditionally kept tabletops unadorned, aside from crisp linens and perhaps a cut flower or two. The experience of calm and joyful communion with each perfectly executed dish is emphasized above all else. *In one specific case, however, being overly minimal can get in the way of common sense.* It will always hold true that diners want to dine in an immaculately clean environment, *no matter how many stars are behind the name.* Patrons value thoughtfulness and cleanliness at every level of a restaurant's design, service pattern, and place setting. The use of flatware rests fit as well at Alain Ducasse au Plaza Athénée in Paris, France as they do at Outback Steakhouse in Paris, Texas.

In Chicago, Michelin three-starred restaurant Alinea expands the notion of common sense into philosophy – where form is quite literally function. Each and every utensil, presentation plate, and tableware accessory provided has been handcrafted and work-shopped for months in advance. The functional form is incorporated into the conception and composition of each dish and acts as an extension of the *food*, itself.

"We decided that anything and everything on the table, including decorative items, must serve a real culinary or experiential purpose,"<sup>53</sup>

says co-owner Nick Kokonas. Their Hot Potato Cold Potato dish is comprised of a hot potato morsel with a black truffle slice skewered over cold potato soup. It is served in a wax bowl made

daily by the same chef who prepares the dish. Taking it further, their chocolate dessert is served directly onto a silicon tablecloth right in front of the guests.



This same degree of attention to the food–accessory–sensory–experience must also be paid to front of house food safety programs in any restaurant. Building on the evidence presented in this report, there's an element to the tabletop–utensil relationship that begs to be resolved. Diners want to experience luxury and pristine conditions in every facet of operations.

The concept of a flatware rest, as a luxurious way of showcasing cutlery and a scientifically backed barrier to contamination, is less of a novelty than a necessity. Even at Alinea, diners **STILL** contend with their natural, biological need to shield,



protect, and elevate their eating utensils. Not addressing this psychological burden for diners is an oversight, which causes unnecessary distraction. Chefs work so hard to earn their guests' singular focus and heightened mindfulness. Flatware rests should, in fact, be regarded as functional extensions of the flatware, itself.<sup>54</sup>

When it comes to spending on customer experience, some restaurants put money into big concept items, but it's important not to overlook the small stuff. At New York's Cote Korean Steakhouse, Simon Kim spent \$250,000 on lighting<sup>55</sup> for his restaurant—an attempt to fight the boom of delivery services keeping diners at home.

Designing spaces that inspire customers to actually get off the couch and show up in person has never been more critical than in the current climate of food service. The rise of Postmates, Uber Eats, et al. has caused in-restaurant sales to consistently decline as publicly traded and venture capital-backed delivery companies grow faster than ever. Maintaining business and attracting new guests amid challenging economic conditions means coming up with ways to differentiate time spent *inside a restaurant* versus time spent with *just the food*.

In the third quarter of 2017, in-store restaurant sales declined by 2.2% and in-store traffic fell as well, by 4.1%-- the second-worst rates in over five years-- according to TDn2K's Restaurant Industry Snapshot.<sup>56</sup> That said, Union Square Hospitality Group CEO, and force behind the world's top restaurant Eleven Madison Park and the Shake Shack empire, Danny Meyer, has said that the future of in-restaurant dining is still rooted in our shared humanity and desire to connect.<sup>57</sup>

It's safe to say that Mr. Meyer has a reputation for sparing no expense when it comes to investing in customer experiences. With one of the most successful hospitality groups on the planet, his instinct for remembering all the big and small things has paid off. It's the little details that make customers feel special.<sup>58</sup>

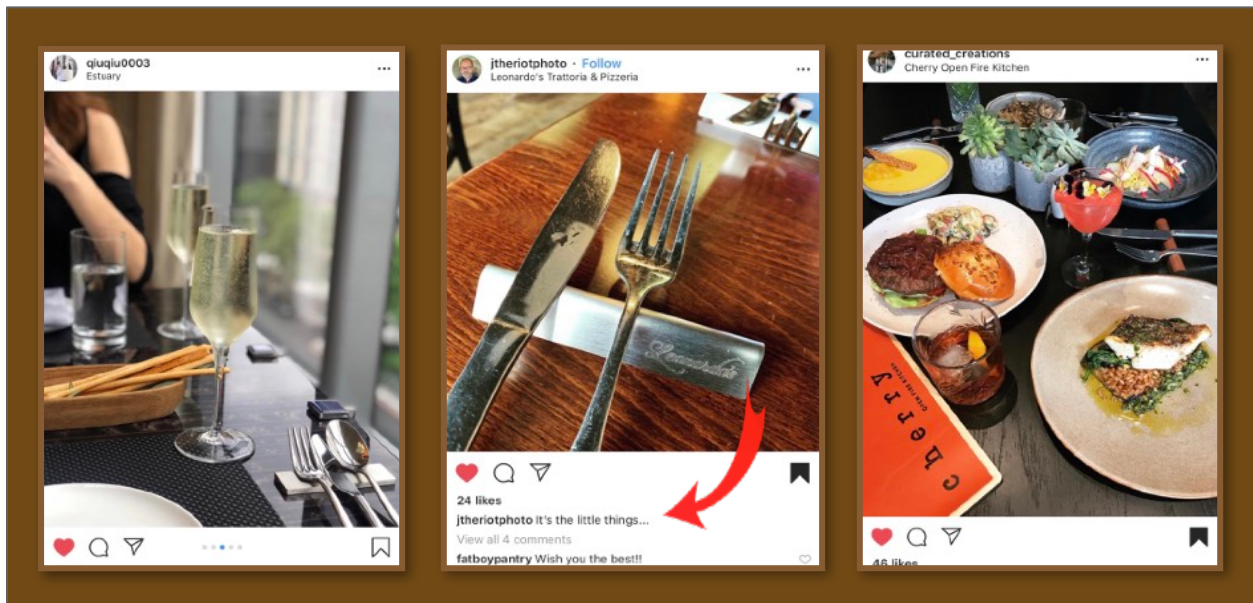
“As long as human beings remain the tribal creatures that we’ve always been, we’re going to crave high touch just as much as high tech. Restaurants provide an opportunity to come together with people.

– Danny Meyer, USHG



Attention to detail builds trust, loyalty, and enthusiastic engagement between a restaurant and its guests. Diners notice everything. From the moment they walk through the doors, until the moment they sit down to write their blog or yelp review, diners are the food critics, journalists, photographers, and PR directors of today. And they're looking to be WOWED.

"People always ask me, 'What's the secret to your success?'" Kevin Boehm, co-founder of Boka Restaurant Group in Chicago recently shared with Hospitality Design Magazine.<sup>59</sup> I say it's equal concentration on food, hospitality, and design ... design is critical, *especially*, in this day and age where you're creating layers to the food and layers to the service. Creating layers in design keeps people interested. And we know how HARD it is to keep people's attention these days."



There's a silver lining to nearly all diners becoming agents of PR in the customer engagement revolution that the industry has undergone. If restaurants harness this properly, investments in interior design can double as marketing spends.<sup>60</sup> The days of traditional advertising are over. Patrons with smart phones and an appreciation for the exceptional visual and culinary experiences you provide are going to do the advertising for you. From sumptuous, photogenic interiors to accessories that spark Instagrammable "A-ha moments" for guests,<sup>61</sup> the investment in a WOW-factor presentation will result, directly, in marketing ROI. **#ItsTheLittleThings**



## MARKET NECESSITY OF FLATWARE RESTS IN THE U.S.

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**The Total Addressable Market size (TAM)** will be assessed for the customer engagement & customer protection tool: The Uplift Flatware Rest.<sup>62</sup> This new category of table service accessory provides an aesthetic improvement to place setting design and food safety improvement to front of house operations. The product is applicable to every type of restaurant where guests eat by using utensils.

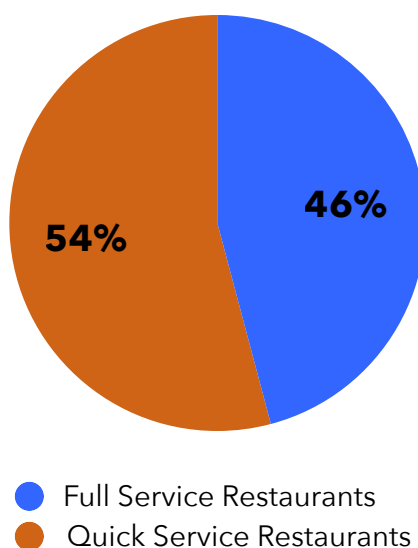
**Total Number of Restaurants in the U.S.:** In August of 2018, The NDP Group in Chicago reported their findings on the total restaurant count in the U.S.<sup>63</sup> Dropping 1% from the previous year, the count came to 660,755. Corroborating that data, the total market size was cross-referenced with the Bureau of Labor Statistics.<sup>64</sup> The BLS placed the total number of units at 647,646 for the fourth quarter of 2018. Finally, the National Restaurant Association,<sup>65</sup> which updates the tally of all eating and drinking establishments in the U.S. every year, established the count at 636,501, for the same period. The table below provides a detailed breakdown of the number of eating and drinking establishments in each state. Each state is a clickable link.

<a href="#">Alabama</a>	<a href="#">Georgia</a>	<a href="#">Maryland</a>	<a href="#">New Jersey</a>	<a href="#">South Carolina</a>	<a href="#">Wyoming</a>
<a href="#">Alaska</a>	<a href="#">Hawaii</a>	<a href="#">Massachusetts</a>	<a href="#">New Mexico</a>	<a href="#">South Dakota</a>	
<a href="#">Arizona</a>	<a href="#">Idaho</a>	<a href="#">Michigan</a>	<a href="#">New York</a>	<a href="#">Tennessee</a>	
<a href="#">Arkansas</a>	<a href="#">Illinois</a>	<a href="#">Minnesota</a>	<a href="#">North Carolina</a>	<a href="#">Texas</a>	
<a href="#">California</a>	<a href="#">Indiana</a>	<a href="#">Mississippi</a>	<a href="#">North Dakota</a>	<a href="#">Utah</a>	
<a href="#">Colorado</a>	<a href="#">Iowa</a>	<a href="#">Missouri</a>	<a href="#">Ohio</a>	<a href="#">Vermont</a>	
<a href="#">Connecticut</a>	<a href="#">Kansas</a>	<a href="#">Montana</a>	<a href="#">Oklahoma</a>	<a href="#">Virginia</a>	

<u>Delaware</u>	<u>Kentucky</u>	<u>Nebraska</u>	<u>Oregon</u>	<u>Washington</u>	
<u>District of Columbia</u>	<u>Louisiana</u>	<u>Nevada</u>	<u>Pennsylvania</u>	<u>West Virginia</u>	
<u>Florida</u>	<u>Maine</u>	<u>New Hampshire</u>	<u>Rhode Island</u>	<u>Wisconsin</u>	

**Full Service Restaurant Market Segment:** For the purposes of this report, the TAM will be assessed based on the Full Service Restaurant tier only. This tier includes casual dining, family dining, and fine dining restaurants. As per The NDP Group's data,<sup>66</sup> the FSR unit count stands at 302,989 or 46% of the market. Limited Service or Quick Service Restaurants represent 357,766 units or 54% of the market. It is acknowledged that flatware rest products offer significant utility to the 54% QSR market as well. Counter service restaurants, cafes, and bars – all of which are included in the QSR market – also have tables and utensils for patrons' use. However, erring on the side of guaranteed product utility and conservative TAM size, all numbers will be based on FSR only.

#### Total Addressable Market (TAM) U.S. Restaurant Industry





**Seats Per Restaurant:** The next figure to consider is the average number of seats / place settings per full service restaurant.<sup>67</sup> Small restaurants typically have a capacity of between 40-60 seats. Medium-scale restaurants have a capacity of 60-120, and large-scale restaurants can serve 120 or more.



**One Flatware Rest Per One Set of Flatware:** As a point of reference, one flatware rest is required for every set of flatware in a restaurant. This is because flatware rests are collected and sanitized along with each set of utensils after each turn of a table. The number of flatware sets that restaurants generally have on hand – those in use, those being washed, and extras as needed – is between 2-3 per seat (high volume establishments stock 3+ per seat). The Wasserstrom flatware calculator advises restaurants on how many sets to stock, upon a new restaurant opening.<sup>68</sup>

**Typical Inventory Shrinkage and Annual Replacement Rate:** The typical rate of annual replacement will be considered. Due to product loss and accidental discarding during the bussing of tables, restaurants typically restock about 10-20% of flatware each year. For the purposes of this report, that figure will be used for the replacement of flatware rests as they will follow the same collection and handling patterns of flatware.

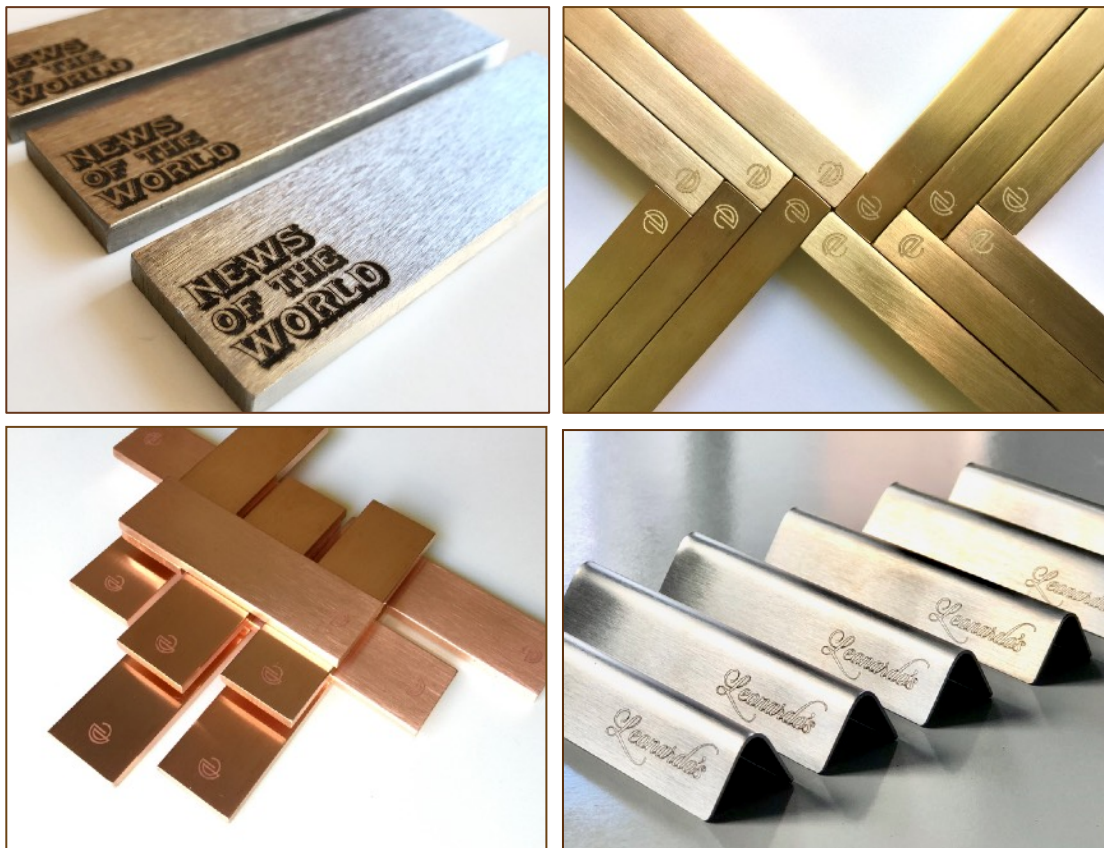
**Choices in Product Quantity:** Restaurants today typically provide 2-3 utensils per place setting (a fork, knife, and sometimes, a spoon). In this instance, one flatware rest to the right of a plate is sufficient. In formal settings, though, more utensils are used on the right and left sides of the plate. In this instance, two flatware rests per place setting may be necessary.



## ELEGANT BRANDING & MARKETING OPPORTUNITIES

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As a final advantage, flatware rests offer the most newly-noticeable and consistently-engaging real estate on the dining table. The attention that this accessory draws can be harnessed to make elegant branding impressions on dining guests. Companies have the unique opportunity to reinforce their brand identity through custom engraving and labeling. Additionally, given that this food safety enhancement is a visually-striking conversation piece, a percentage of diners will also inquire about taking them home. Leaning into the customer interest, companies can capitalize on selling branded products to souvenir-minded customers. From Michelin star restaurants, like Eleven Madison Park and Alinea, to global attractions, like Rainforest Café and Disney, restaurants can package collectible sets and, in fact, profit from the demand of design-forward and hygiene-conscious Millennials and modern foodies.



## SUMMARY

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In 2019, Millennials eclipsed Baby Boomers as the largest living generation today. In doing so, Millennials also took the reins on the most spending power, too. As it relates to today's food culture, tastes and preferences shaped by Gen X, Y & Z in the last 15 years have evolved dramatically. The three principle drivers transforming the industry are: Health, Hygiene, and High Touch Customer Experiences.<sup>69</sup>

The battle for consumers' attention (and dollars) will only be won when businesses address these core concerns / demands in earnest. There is no middle ground with enlightened consumers today. They know that they are voting with their dollars. They demand authenticity and mission alignment with the companies they support. And they want to feel like they're making themselves and the world a better place with the experiences they invest in.<sup>70</sup> This trend is only getting stronger, as demonstrated by the research, and the social media culture of interconnectedness and accountability further reinforces these collective values.

On a fundamental level, people want to feel safe. On a functional level, people want to feel healthy. On an aspirational level, people want to feel transcendent. The food revolution sits at the heart of these human desires. Sharing meals with friends and family, nourishing our bodies, awakening our senses, and surpassing what we thought was possible is all contained within the humble and necessary act of dining. With a growing consensus in the U.S. and beyond around up-leveling one's life experiences, food is the accessible pathway to achieving this goal three times a day.

The last thing that anyone wants to think about during their daily dining adventures is the idea of getting sick or making a big mess. Observing the operational flow of food service establishments, utensil organization throughout a meal may be the single most un-curated element in the modern dining landscape. Yet, utensils are also the most customer-facing and customer-interactive – other than the food, itself – so critical attention to this keystone must be paid.

There's a tremendous opportunity to make the customer's experience of resting flatware and in-use flatware verifiably hygienic, well appointed, and seamless. The solution of adding flatware rests to every place setting in the U.S. ties together all three drivers of health, hygiene, and customer engagement. Whether dining in a 1-star restaurant or a 5-star restaurant, no diner wants to feel unclean or uncivilized. And for the 32 million Americans in the food allergy community, this isn't a choice. Every precaution must be taken to remove unnecessary cross-contact dangers from tabletops and relieve this population of their acute mealtime anxiety.

Even in a best-case scenario, tables and utensils may be sparkling and sanitary at the beginning of each day, but once a table is turned, the game changes. It's the human factor that introduces added bacteria to the equation. Hand after hand, touching all items and all shared surfaces is where the problem starts. Restaurants do everything they can to train staff to clean and sanitize tables properly. However, it's not entirely uncommon to arrive at a table that actually has visible crumbs on it. While this is deeply disconcerting, it's also a window into the truth of what still lives on tables once the server 'wipes the crumbs away'. The reality of pathogens being present on 'clean tables' is a universal stress that diners carry every time they sit down.

There are simply millions of bacteria, spores, particles, and proteins that are water-borne, air-borne, and surface-borne. Sometimes, it's not even the fault of the restaurant. The surfaces are the carriers ... if only from the party that left the table or bar top four minutes ago. Flatware Rests are simply one more tool that restaurants have in their arsenal to maintain healthy environments for patrons.

Restaurants that invest in ground-breaking design and customer well-being will be the leaders in the new food service paradigm. Millennials and modern foodies will continue unapologetically driving the industry toward health, hygiene, and shareable WOW moments, but the great news is that they're not afraid to pay for it, either.<sup>71</sup> Recouping the investment with higher than average ticket sales, restaurant owners will also get the bonus of authentically engaged foodies telling the whole world about it, one Instagrammed bite at a time.

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