Research Article

Sustainability, safety and security: A case for hospitality industry response to natural disasters

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Abstract

Natural disasters are increasing around the world and at the same time the hospitality industry is poised for growth. Recent emphasis on standards for pre-professional education and high-quality industry experiences have attracted professionals to be committed to longer term careers in industry. The present study, informed by four theoretical frameworks, incorporates and tests the dynamic interaction among three of the drivers in hospitality, tourism, culinary and recreation career areas; sustainability, safety and security. A case study methodology was employed to examine a series of industry responses to a specific natural disaster. Responses by various industry sectors were reviewed. Recommendations are made for future research, human resources approaches, technological innovation and integration that allow the industry to become a key player in this context.

Keywords:

Natural disaster, case study, Camp Fire, disaster management, community

1 Introduction

Human experience increasingly includes exposure to natural disasters. While the economic impact of such disasters on the tourism, hospitality and recreation industries is frequently featured, the focus of this investigation is to explore the impact of industry response during natural disasters on consumers' perceptions of the industry. "Since 1990, natural disasters have affected about 217 million people every year, and about

300 million people now live amidst violent insecurity around the world" (Leaning and Guha-Sapir, 2013, p. 1), suggesting that the experience of natural disasters is more common than one might expect. Alternatively, it is important for industry professionals to incorporate plans for the safety and security of consumers into sustainable practices, logically as part of a corporate social responsibility.

1.1 Theoretical Foundations

The rationale for the following in-depth analysis of the response to a natural disaster in California is provided to prompt industry-wide solutions to the safety and security of people, planet and profit in the most sustainable manner possible. The complexity of natural disasters brings into play a wide range of interrelated responses to the safety and security of people and property. There are four theoretical frameworks that are commonly drawn upon by scholars to frame responses to natural disasters; systems theory, vulnerability theory, socio-political ecology theory and emergent norm theory (Brown, 2016). While in-depth descriptions of these theories are unrealistic given the limitations of the paper, the titles of the theories are descriptive of the professional, personal, policy development and community dimensions experienced by those involved in response and recovery associated with natural disasters. These theories are particularly helpful in understanding the diverse ways in which the hospitality, tourism, recreation and culinary industries are intertwined in assisting and advocating during such times. Table 1 provides an example of how theories may assist industry professionals in understanding the interrelationships among their internal protocols and human behaviours during disasters. Industry mandates for social responsibility are often tied to practical evidence of sustainable policies and practices throughout industry sectors and are informed by multidisciplinary perspectives.

Table 1. Hospitality, Culinary, Tourism and Recreation Industries Context and Application of Theoretical Models

Informing Theoretical Framework	Industry and Community Interface	Human Experience: Preparation and Response
Systems	Holistic, integrated and responsive to both internal and external connections. Aware of long-term implications of actions (Systems Theory).	Necessity and ability to understand underlying operations and protocols while in specific settings.
Vulnerability	Government's responsibility to protect all citizens; implications for emergency management (Kohn, 2014).	Individuals trust that health, safety standards at a variety of levels are in place and will protect them.
Socio-Political Ecology	Examines interrelationships among political, community, organizational, interpersonal and individual contexts; power dynamics between natural and human developed systems (Steinbuck, nd).	Intricacies of local, regional and national institutional levels and social hierarchies are too complex for individual consumers to recognize and manage in emergency situations.

Emergent Norms Response to crowd behavior in response to crises (Arthur, 2013).

Individuals are expected to rapidly adapt during times of crisis but may lack prior training or experience with emergency situations. As a result, they react to and behave in ways similar to those around them.

2 Literature Review

Natural disasters pose one of the most direct threats to long term viability of the hospitality industry which includes many interconnected forms of travel and tourism, lodging, cruise lines, recreation and culinary experiences, including a burgeoning global wine industry. In fact, this industry sector alone is expected to reach USD 450.59 billion by 2024, registering a compound annual growth rate (CAGR) of 5.8%, during the forecast period 2019 – 2024, with expansion into China, India and Japan (Mordor Intelligence, p.1). Reported damage to wineries during recent wildfires offers an important and timely opportunity to examine economic, environmental and human costs to the hospitality industry associated with such disasters. Hodgins (2017), reporting from Orange County California, for example, identified 27 damaged wineries in 2017 that might impact visitor destination travel. A follow-up on 27 wineries was offered by Tatko-Peterson (2018). One year later, Emma Balter (2018) reported on recovery within the industry. Although it is beyond the scope of this paper to examine the impact of every natural disaster – avalanches, earthquakes, tsunamis, hurricanes, floods, wildfires, to name a few, one case is provided to examine possible industry strategies.

2.1 The Case of the Camp Fire: Trouble in Paradise

The Camp Fire was a deadly wildfire that occurred in Northern California starting on November 8th, 2018, and it was 100 % contained on November 25th, 2018 (Wootson, 2018). In detail, Camp Fire destroyed the entire town of Paradise, and the origin point of the wildfire was near Pulga Road and Camp Creek Road, which are parts of the Butte County district. Therefore, "Camp Fire" was named after Camp Creek Road (Loucks, 2018). Camp Fire was declared California's most destructive and deadliest wildfire in history and was considered the world's costliest natural disaster in 2018 because it burned a wide range of acres, destroyed tens of thousands of structures, and took a heavy toll of lives (Rice, 2018).

While the exact cause of Camp Fire was uncertain (Dwilson, 2018) due to the lack of access to the site; it was reported that the equipment used by Pacific Gas and Electric Company was presumed to be the ignition point of the wildfire (Paris, 2019). Additionally, the California Department of Forestry and Fire Protection, Butte County Sheriff Department, Paradise Police Department, and US Forest Service served as the administrative units and took major responsibility in extinguishing wildfires and rescuing people evacuated from wildfires (Cal Fire, 2019). In addition to these administrative units, there was a great number of other state and federal agencies that contributed to the recovery of communities affected by Camp Fire by providing evacuees with

resources and assistance and conducting Camp Fire Evacuation Relief Fund to help survivors. Important attention was later paid to residual mental health of all involved, since Camp Fire constituted a highly intense and unpredictable set of experiences that could possibly result in a diagnosis of Post-Traumatic Stress Disorder (PTSD) for anyone involved; regardless of formal role or type of exposure to ill-effects of the natural disaster.

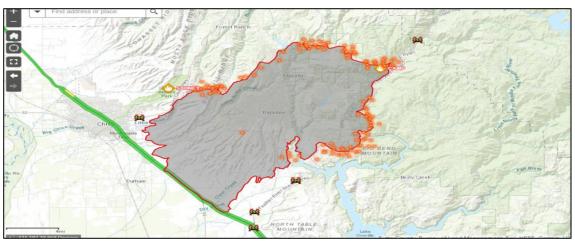


Figure 1: Map of Buttle Country California, USA

For example, California's statewide and regional Emergency Operations Center provided emergency shelters for evacuees, California Highway Patrol provided search and rescue operations, California Conservation Corps focused on supporting recovery operations, and Emergency Medical Services Authority provided nursing support to survivors (FEMA, 2018). Additionally, Butte County started to recover and rebuild their community affected by Camp Fire by implementing a long-term disaster recovery plan, and they started to enhance safety measures to prevent future wildfires by working with the communities and reinforcing their electric system (Butte County, 2018). Since many survivors of Camp Fire lost their homes and needed immediate assistance, the hospitality industry stepped up to provide them with various resources, such as free housing, free transportation service, leisure services, discounts for hotels, and free meals.

According to statistics generated from data collected on the Camp Fire incident provided by the California Department of Forestry and Fire Protection, a total of 153,336 acres were burned and 18,793 structures were destroyed by Camp Fire (Cal Fire, 2019). In detail, 74.35% of the burned structures were residences, 2.80% were commercial buildings, and 22.85% were other structures. Initially the death toll from Camp Fire was 86 people in total, with 81.39% of them already identified and 18.61% were not identified, so that officials continued to identify the names of 16 victims of Camp Fire (Abbasi, 2019). Furthermore, about 9,400 firefighters struggled to contain the blaze, and 15.09% of the firefighters were incarcerated firefighters (Zaveri, 2018). On top of that,

a total of 12 people were injured due to the blaze, and 41.67% of them were firefighters. Also, there were 52,000 evacuees, and three people are still missing according to a later news report (Moffitt, 2018). Additionally, the total damage of Camp Fire was \$16.5 billion, and one-fourth of the overall loss were not covered by insurance. Also, the overall global economic impact of the catastrophe that happened in 2018 was \$160 billion (Rice, 2018). Therefore, the overall loss caused by Camp Fire occupied 10.31% of overall global economic impacts in 2018.

In addition, Butte County's total population is 229,294, with approximately 80% of the population are 18 years old and over. Also, 82.24% of the residents are Whites, 4.52 % are Asians, 1.50% are Blacks or African Americans, and the rest are mostly Hispanics, and 26.6% of them hace a bachelor's degree or higher (U.S. Census Bureau, 2018). Additionally, one of the most affected towns in Butte County, Paradise's total population is 26,437, and 17.5% of them are younger than 18, and 82.5% are older than 18. Also, 59.0% of the victims are the residents of Paradise, and 41.0% of them are the residents of Magalia, Concow, and Chico (U.S. Census Bureau, 2018).

2.2 Involvement of Community and Hospitality Industry

Butte County has been focusing on providing various resources for survivors, ensuring the safety and health of people living in the community, and rebuilding communities in the wake of Camp Fire. One of the major resources the county has been offering to survivors is Immediate Disaster Case Management (IDCM) service, which provides a minimum standard of living for people in the community (Butte County, 2018). In detail, it helps survivors connect with necessary resources, such as food, welfare program, housing, transportation, financial assistance, and employment. Through a partnership with the Administration for Children and Families, the survivors can receive assistance from Case Managers to develop their disaster recovery plans. Additionally, since many evacuees needed places to stay, the hotel industry stepped up to provide special rates for hotels, free meals, and free parking for people who were displaced by Camp Fire. According to the director of the sales department of Hyatt Regency Sacramento, the hotel offered the special rate of \$95 per room for evacuees and waived parking fees and pet cleaning fees in order to help evacuees who lost their houses (B. Kirian, personal communication, March 19, 2019). Airbnb offered free temporary housing via their online service named Airbnb Open Home (Stampler, 2018). As a result, over 2,500 people offered free temporary housing to evacuees from all Camp Fire, Woolsey Fire, and Hill Fire, and about 2,000 people were able to find temporary places to stay. Also, ride-hailing companies, Uber and Lyft, committed to offering free \$50 (Uber) and \$15 (Lyft) rides to evacuees to meet their transportation needs and help them to access to resources they needed, such as emergency shelters, hospitals, hotels, and food banks (Stampler, 2018).

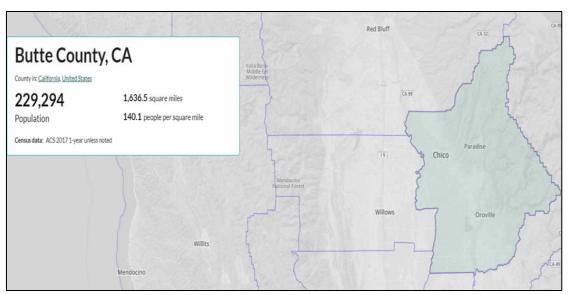


Figure 2: Demographic Characteristics in Butte County, California USA

Moreover, a non-profit tourism organization, Visit California partnered with the Red Cross to conduct a charitable campaign named "#CALove" that encouraged people to visit California and to raise funds from people who were willing to support the community impacted by the wildfire (Visit California, 2019). This campaign continued to bring more travelers to the state and revamp California's tourism profile. Also, the recreation industry sector stepped up to help survivors heal by getting them engaged in recreational activities and programs. For example, a recreational facility located in Paradise, "The Paradise Ice Rink" opened their skate rink three days before Christmas to provide survivors an opportunity to celebrate Christmas with loved ones and to bring a community together again (Mackey, 2018). Also, from the entertainment industry, "The San Francisco Gay Men's Chorus" hosted a charity concert to raise money to support the youth survivors and make them feel a sense of belongingness through music. As a result, the audience raised over \$6,000 and all the money was donated to Paradise High School to help students who lost their houses and to replace their music library (Manzanilla, 2019). As the design, implementation and evaluation of private, corporate and community events have become a fast-growing sub-sector within the hospitality industry, there appears to be a clear connection to collaborative efforts among industry sectors during response to natural disasters and throughout the recovery process.

2.3 Impacts on the Hospitality Industry

While Camp Fire had a negative impact on the broader hospitality industry, especially to the tourism industry; it nevertheless had an initial positive impact on the hotel industry. Unfortunately, the restaurant industry within Butte Country experienced extensive economic damage due to the wildfire because numerous local restaurants in the district were destroyed by the deadly blaze, such as McDonald's, Burger King, Jack

in the Box, and KFC, and Darlene's Fine Candy & Ice Cream, which was one of the most popular ice cream shops in the town of Paradise (Luna, 2018). In addition, a total of three hotels in the town of Paradise were destroyed by Camp Fire, including the following: Best Western Paradise Hotel, Ponderosa Gardens Motel, and Lantern Inn. It was apparent that the wildfire leveraged substantial financial damage in the hotel industry in the town of Paradise; the demand for lodging temporally increased hotel services in surrounding cities in Butte Country, especially the City of Chico. The hotel industry in Butte County accounted for 4,810 rooms across 94 hotels, and the demand for the hotels increased 43.3% through November 7th to November 27th, 2018, compared to the same days in 2017 (Hospitality Net, 2018). Furthermore, the occupancy rate during the period was 85.6%, which was a much higher percentage than the last year's occupancy rate of 42.2%. Also, the average daily rate of hotels in Butte County grew to \$102.49 (Hospitality Net, 2018). This is because many evacuees lost their homes and the evacuees needed to stay at hotels to make sure they had access to day-to-day necessities, such as food, beverage, bedding, and Internet service.

Additionally, San Francisco is one of the most popular destinations in California, and offers a variety of tourist attractions; however, the Camp Fire had an unexpected negative impact on the tourism industry in San Francisco. According to the lodging report published by Visit California, the overall occupancy rate of California in January 2019 was 66.7%, which was a 1.1% increase from 2018, and the average occupancy rate in the San Francisco Bay area in October 2018 was 84.4%, which indicated that a great number of tourists visited the city (Visit California, 2019). However, in November 2018, when the incident happened, the average occupancy rate dropped to 71.0%. Also, in January 2019, even though the wildfire was 100% contained and smoke from the fires was gone, the average occupancy rate in San Francisco dropped to 68.6% (Visit California, 2019). This combination and sequence of events indicated that Camp Fire was the major cause of the decrease in the number of tourists in San Francisco from November 2018 to January 2019.

Even though San Francisco is located about 165 miles away from the town of Paradise, San Francisco's tourism industry was affected by poor air quality due to Camp Fire. For example, the San Francisco Recreation and Parks Department had to cancel most outdoor activities and youth programs, such as a youth skateboarding program named Shred N Butter, due to extensive smoke from the wildfire. Ho (2018) found that there is little research on the long-term effects of smoke inhalation on the health of the general population, as opposed to studies conducted on wilderness firefighters, due to combustion of plastics and household chemicals commonly found in urban fires like Camp Fire. Other popular tourist attractions, such as Alcatraz Island and Four Point National Historic Site were closed due to the poor air quality, and the City of San Francisco encouraged tourists to wear masks while they were outside to protect them from haze and smoke (Guerrero, 2018). Therefore, it was evident that San Francisco's tourism industry experienced significant financial damage due to the closure of the tourist attractions.

3 Methodology

Based on the foregoing summary of published documentation associated with Camp Fire, the present study employed a case study approach using evidence from real world events. According to Yin (2014, p.106), primary sources in case studies may include extensive documentation, archival records, interviews, direct observation, participant observation and physical artifacts. Internet-based research was conducted to obtain demographic and statistical data on Camp Fire and its impacts on the recreation, parks, tourism, entertainment, and hospitality industry. Peer-reviewed articles and published news reports were used as primary resources to gain credible information on the incident and community involvement. Fact sheets and press releases published by the California Department of Forestry and Fire Protection were used to collect statistical data on victims, burned acreage, destroyed structures, missing people, and the amount of damage. Additional research was conducted by interviewing an area hotelier via email.

4 Findings

As noted previously, there are many types of natural disasters, and it is both impossible and impractical to study all of them. This analysis is based on the Camp Fire in the state of California in the United States. There are several recommendations that are proposed by the state and local community to prevent future wildfires and rebuild the community. However, the state and federal government have not yet proposed new regulations or restrictions regarding the uses of fire to the hospitably industry. Firstly, California's current governor, Gavin Newsom, proposes to install high-tech infrared cameras all over the state to monitor wildfires and stop them before the fires grow. In detail, the state is planning to install at least 100 early warning cameras by the end of this year and expand "AlertWildfire" network to protect citizens and create safe communities (Daniels, 2018). However, in order to implement this prevention plan, it is necessary for the state to change fire policies by following Senate Bill 901 and making electric utilities create a new wildfire safety plan and get an approval from California Public Utilities Commissions (Daniels, 2018).

Also, the Butte County community proposes to initiate Camp Fire Tree and Biomass pilot program to help plant trees for wildfire restoration and rebuild the community (Butte County, 2018). They start to hire staff and look for organizations that are willing to help harvest timber to restore the affected areas. Also, they plan to use solar energy in their community to reduce greenhouse gas emission and become an energy-efficient community (Breedon, 2018). Ironically, trees generate one greenhouse gas, methane (DNews, 2010), in addition to cleansing the air of tons of carbon dioxide. Increased emphasis on tree health (Islove, 2016), whether at the individual, community, corporate or forest level, has gained attention as a strategy in combatting rising global temperatures and extended drought, which can increase the risk of wildfires. In addition, adapting solar panels to agricultural, public places and commercial facilities – including hospitality, recreation and tourism spaces – can be a great way for the

communities to reduce threats of future wildfires. Employing sustainable energy conservation practices, will support economic development and preserve the natural environment in their community.

Results of investigations suggest that Camp Fire was caused due to the negligence of forest management, and the wildfire could have been avoided if the forest management plan was conducted effectively. A policy brief responding to the fires in the Pacific Northwest three years before the Camp Fire, Morris (2015) identified longstanding debates around forest management strategies by government agencies such as the Forest Service and Bureau of Land Management, but also controversy over proactive, but unpopular solutions such as required fire plans, harvesting, and transfer of forest management responsibility to some states. While residents love the trees, they also expect to be protected from possible fires. Selectively removing trees from forests would reduce insect infestations that weaken trees, while preventing rapid spread of wildfires. Forests, after all, provide a wide variety of recreational, wildlife and fitness experiences for both tourists and local inhabitants. In the case of Camp Fire, the federal government is responsible for controlling about 57% of California's 33 million acres of forest (Guterman, 2018). Using drones to regularly monitor the conditions of forests and wildlands is one way to detect wildfires earlier, while using non-gas-powered drones can reduce the emission of aviation gasoline and diesel used by helicopters.

It is important to note that the entire town of Paradise was destroyed due to Camp Fire, and it may take decades to restore the natural, built and human environments. Thus, a preliminary step in rebuilding infrastructure, systems, and programs to enhance the hospitality industry in these areas is to bring the community together and make sure every resident's voices are heard. Also, while the state and the city are working on wildfire debris cleanup and recovery, the residents of Butte County community use social media to regularly post the status of the community while demonstrating resiliency and a self-help attitude. People all around the world may see their efforts and be inspired to visit the community to help them rebuild the community. Rainey (2019) described the beginning of a new school year as a sign of resilience even though "reconstruction still lags and debris-removal trucks fill the roads, but the return of students and teachers marked the beginning of what many here hope will be a rebirth".

Moving forward, the community might intentionally prioritize restoration and revitalization of popular tourist attractions in Butte County to rebuild both community infrastructure and a sense of shared empowerment while actively promoting tourism. For example, the community might hold charitable events or youth programs at Bidwell Park, located in the City of Chico, so that participants can directly experience that sense of engagement that is not only essential in rebuilding community, but also in enhancing the hospitality industry. Youths, after all, are often described as the hope of the community, and they have a chance to make positive impacts on the future of their community through the direct engagement with recovery efforts. Therefore, the community might actively encourage youths to participate in public meetings, soliciting input on future emergency plans as well as related policy so that their voices will be heard, and they may influence safety, security and recovery protocols. Young people

will also gain exposure to those employed in the hospitality tourism, culinary and recreation industries, and potentially explore some aspects of the industry for potential educational and career options, even as they enjoy personal and economic benefits of enhanced amenities.

Notably, and on the most practical level, in early February of 2019, the Pacific Gas and Electric Company (PG&E) announced its amended wildfire safety plan that will impact residential, public and privately held spaces. The 100-plus page report (n. a. *Pacific Gas and Electric Company Amended 2019 Wildfire Safety Plan*, 2019) provided detailed recommendations that include emergency power outages that are centrally controlled. It is unlikely that this comprehensive set of recommendations will be revised in the near future, implying that these constitute the sociopolitical agenda for the foreseeable future.

5 Conclusion

Based on this analysis of the California Camp Fire there are several possibilities for strategies within the hospitality industry. Buchholz (2020), however, reinforced the increasing relevance - and urgency - of developing industry-wide responses to wildfires on an international scale by emphasizing the millions of acres damage associated with three recent events; California 2018 (2.0 m), Siberian (6.7 m) and Australia (12.4 m). As noted by Fink 2013 "there is life beyond your crisis bubble, and much of it involves your constituents. Listen to them and be sure they are listening to you, p. 228". Emerging leaders in the industry will require a combination of traditional academic education combined with ability to select context-relevant applications that will meet everchanging strategic aims of the industry sector. Annual, quarterly and monthly comparative analytics are provided by industry-based organizations, private business and by consultants. How will the next General Manager, Executive Chef or agency head be prepared to embrace this challenge? How will selection criteria, onboarding and training programs be effectively designed to fashion leaders sensitive to the complexities of working in an industry often challenged by natural disasters and their impact on the financial bottom line? Entering the third decade of the millennium most industry professionals recognize the "triple bottom line" -people, planet and profit.

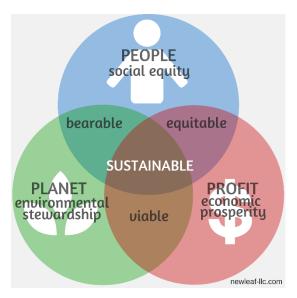


Figure 3. The Triple Bottom Line

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5.1 Implications

The hospitality industry is multi-faceted and often perceived by industry professionals as segmented, often leading to the perception by consumers as competitive, self-serving and market-driven. As a result, patrons, guests and clients increasingly look for hard evidence that industry professionals are not only espousing corporate social responsibility, but practicing it in the most tangible of ways. The California's Camp Fire presented an opportunity to examine the hospitality industry's response during times of natural disaster that impacted many participants of tourism, hospitality and culinary experiences.

Through the research on Camp Fire, the utmost importance is identifying the needs of the affected community and survivors of the wildfire to develop and implement a recovery plan to help rebuild the community. Positioning tourism, hospitality, recreation and culinary organizations as facilitators and responders to this process becomes increasingly compelling for linking sustainability, safety and security for guests, visitors and future consumers represented by the community's youths.

The PG&E Plan incorporates a wide range of initiatives to help the public understand natural and human risk factors that might lead to wildfires, as well as establishing emergency communications, outreach before and following wildfires and establishment of a Wildfire Safety Operations Center. Hospitality professionals do not need to reinvent the wheel, but can propose ways in which they align their in-house technology with

existing systems, including integration with geo spatial information data mapping and applications.

Conclusions drawn from follow-up analyses of the impact of Camp Fire on those experiencing it, infer that damage is not limited to physical health, property and economic prosperity within the region, but also affects mental health and wellbeing of residents, visitors and communities. One response, for example, is the Wildfire Trauma Study, a collaborative initiative undertaken by Stanford Medical Center and the Aurora Santa Rosa Hospital (n. a. Paradise Camp Fire). Industry professionals may wish to monitor results of this study for their potential impact on industry-related marketing strategies, customer expectations and consumer patterns in areas recovering from natural disasters.

5.2 Future Study

Recommended directions for future study take four basic directions: (1) technological innovation and integration; (2) development of effective, coordinated crisis communication messages; (3) continued collaboration on effective operationalization of corporate social responsibility across industry sectors, and; (4) creative human resource protocols that match talents with the demands of an increasingly volatile hospitality setting. The case of Camp Fire provides an example of how effective and timely responses in the tourism, hospitality and culinary sectors can garner a place in the hearts and spirits of consumers at points when they are most vulnerable, namely, during a natural disaster.

Now that a respectful amount of time has passed since the fires, there is clearly an opportunity to collect qualitative and quantitative data from those who were directly or indirectly affected by the natural disaster. Investigations might compare perceptions among industry professionals to those of current as well as prospective consumers. Analyzing statistical and demographical data is an essential research strategy to determine impacts on the community, hospitality industry, and the youth development caused by the wildfire. However, as noted earlier there are natural disasters all over the world so research results may be applied and adapted to various settings. Considering that ten of the deadliest disasters in 2018 were the result of wildfires in Greece, an earthquake in Papua New Guinea and Indonesia, floods in North Korea, Nigeria, India and Japan, a heat wave in Pakistan, a volcanic eruption in Guatemala and a tsunami in Indonesia (2018), the finding may assist in formulating international policies. Consumers wish to know there is a realistic and sustainable plan in place so that global as well as local travel, hospitality, tourism and recreation continue to expand. Use of industrywide big data will provide bases for comparison within similar sectors leading to the establishment and assessment of the most effective approaches to natural disasters.

As noted by many of today's researchers, investigations focused on consumer experience are combining quantitative and qualitative methods to gain stronger fit between customer expectations and experiences delivered to guests and visitors. The

ultimate goal, however, is to design systematic and sustainable practices that enhance the reputation of each industry sector. Models may be designed, scaled and tailored to suit various sizes of enterprise, so that all industry professionals may develop protocols that mesh with both their corporate vision and daily operations. As Coombs (2019) might remind, much of what we do when managing crises, revolve around the reputation management in both short and long terms. A positive reputation will continue to attract committed individuals to the profession and fuel success on a variety of levels, including individual performance and sense of wellbeing.

6 About the author

Veda E. Ward is a Professor with the Department of Recreation and Tourism Management at California State University, Northridge. She earned her Ph.D. at the University of Maryland, College Park, in Recreation; her MS from the University of Baltimore, Urban Recreation; a Master of Arts in Management from the University of Redlands, School of Business and a BA at Bucknell University, with a double major in Religion and Spanish. She maintains professional certifications as a Certified Hospitality Educator (CHE), and Certified Parks and Recreation Professional (CPRP). Areas of curriculum development, scholarship and professional service include international faith-based travel, integration of the hospitality industry with local communities and varied connections to allied health; including food justice, sustainability along with workforce development and human resources.

Ward has served on the Board of Trustees for the National Recreation and Parks Association (NRPA), Leisure Time Advocacy Board for Hilton Industries, Los Angeles County Commission on Women (Chair), the Task Force on Licensure for Recreation Therapists. She is a member of numerous professional organizations (ICHRIE, NRPA, KAHTEA, CPRS) as well as having been elected to Phi Kappa Phi Academic Honor Society and Whitehead Leadership Society. In addition, she has served in a variety of leadership capacities in shared governance as well as on department, college and university levels of faculty retention, tenure and promotion review.

Travel experiences informing her academic life and personal interests include Belgium, Belize, Canada, England, France, Germany, Greece, 5 Hawaiian islands, Ireland, Italy, Japan, Morocco, Netherlands, Peru, Puerto Rico, Scotland, Spain; Prague and Vienna.

Alex Mattern currently holds the position of Hotel Guest Service Associate with Hoshino Resorts Inc. in Japan. The company focuses on multitasking, allowing him to fulfill a variety of roles such as event planning, front desk, housekeeping, food and beverage service, hotel porter, and taking care of inbound tourists by using his fluency in multiple languages. Mattern earned his BS in Tourism, Hospitality and Recreation Management (2019) Department of Recreation and Tourism Management California State University, Northridge

7 References

- Abbasi, J. (2019, March 6). Paradise's Emergency Department Director Recalls California's Worst Wildfire. JAMA, JAMA, 06 March 2019. Retrieved from https://jamanetwork-com.libproxy.csun.edu/journals/jama/fullarticle/2727873.
- Arthur, M. M. L. (2013). Emergent norm theory. The Wiley-Blackwell Encyclopedia of Social and Political Movements, Edited by David A. Snow, Donatella della Porta, Bert Klandermans, and Doug McAdam. Blackwell Publishing Ltd. DOI: 10.1002/9781405198431.wbespm432.
- Balter, E. (2018). 5 Wine Stories of 2018 I'm Thankful for. Wine Spectator. Retrieved from https://www.winespectator.com/articles/5-wine-stories-2018-im-thankful-for.
- Breedon, D. (2018). Project Highlight: Butte County's PowerButte Guide. 21-23. Retrieved from http://sgc.ca.gov/resources/docs/20180208-CaseStudy_ButteCountysPowerButte.
- Brown, N. (November 3, 2016). Theories of Disaster Recovery in Emergency Management. Retrieved from https://youtu.be/4FNC7UxxY98
- Buchholz, K. (January 8, 2020). The shocking size of Australian wildfires. https://www.statista.com/chart/20387/recent-wildfire-events-by-acreage-burned/?fbclid=IwAR0CUxx6WVO_M5xn6aGt5AFjVrCFV045yEJbOH1siDegvmqnF5fq95VD N4w.
- Butte County. (2018, November 23). Butte County Recovers. Retrieved from https://buttecountyrecovers.org/.
- Coombs, W. T. (2019). Ongoing Crisis Communication: Planning. Managing and Responding, 5th Edition. Thousand Oaks, CA: Sage Publications.
- Daniels, J. (2018, November 16). California Hopes to Get the Jump on Fires by Expanding its High-Tech Early Warning Camera System. Retrieved from https://www.cnbc.com/2018/11/16/california-hopes-high-tech-cameras-can-help-stop-fires-before-they-grow.html.
- Dwilson, S. D. (November 13, 2018). PG&E Had Outage Before Camp Fire's Start; Fire's Cause Still Unknown. Retrieved from https://heavy.com/news/2018/11/camp-fire-cause-how-started/.
- Federal Emergency Management Agency (FEMA). (2018, November 17). State and Federal Partners Respond to the California Wildfires. Retrieved from https://www.fema.gov/news-release/2018/11/17/4407/state-and-federal-partners-respond-california-wildfires.
- Fink, S. (2013). Crisis Communication: The Definitive Guide to Managing the Message. New York" McGraw Hill.
- Guerrero, S. (2018, November 17). San Francisco Museums, Businesses Close Due to Poor Air Quality. Retrieved from https://www.sfgate.com/california-wildfires/article/closed-businesses-bay-area-smoke-air-quality-sf-13399232.php

- Guterman, L. (2018). Trump's Tweet Ignites Clash Over Fires. *Science*, 362(6416), 728. Retrieved from http://science.sciencemag.org.libproxy.csun.edu/content/362/6416/728
- Hamers, L. (2018, November 15). Development Near Natural Areas. 194(12). Retrieved from https://www.sciencenews.org/article/development-near-natural-areas-puts-more-californians-path-wildfires.
- Ho, C. (November 16, 2018). What will wildfire smoke do to my health? Long term, even experts don't know. Retrieved from https://www.sfchronicle.com/california-wildfires/article/What-will-wildfire-smoke-do-to-my-health-Long-13399961.php.
- Hodgins, P. (October 25, 2017). 27 wineries damaged or destroyed by recent fires. The Orange County Register.
- Hospitality Net. (2018, December 12). Hotel Demand Jumps in Areas Affected by California Wildfires. Retrieved from https://www.hospitalitynet.org/news/4091233.html
- Islove, M. (Wednesday, 01 June 2016). How to Minimize Fire Hazards Due to Trees? Retrieved from https://bayareatreespecialists.com/how-to-minimize-fire-hazards-due-to-trees/.
- Kohn, N. A. (2014). Vulnerability Theory and the Role of Government, 26 *Yale Journal of Law and Feminism*. Retrieved from https://digitalcommons.law.yale.edu/yjlf/vol26/iss1/2.
- Leaning, M.D., Guha-Sapir, Ph.D., (2013). Natural disasters, armed conflict and public health. The New England Journal of Medicine.7, 369. pp.1836-1847. Retrieved from https://www.nejm.org/doi/full/10.1056/NEJMra1109877.
- Loucks, E. (2018, Dec 03). The Impact of the California Camp Fire. University Wire. Retrieved from http://libproxy.csun.edu/login?url=https://search-proquest-com.libproxy.csun.edu/docview/2140780945?accountid=7285
- Luna, N. (2018). Calif. Wildfires Destroy Outlets of Several Major Restaurant Brands.

 Restaurant Hospitality, Retrieved from http://libproxy.csun.edu/login?url=https://search-proquest-com.libproxy.csun.edu/docview/2132206794?accountid=7285
- Mackey, M. (2018, December 22). Paradise Ice Rink keeps tradition alive, opens after Camp Fire just in time for Christmas. Retrieved from https://krcrtv.com/news/camp-fire/paradise-ice-rink-keeps-tradition-alive-opens-after-camp-fire-just-in-time-for-christmas
- Manzanilla, A. (2019, Jan 29). Gay Men's Chorus Raises \$13, 500 for Camp Fire Victim Relief. University Wire. Retrieved from http://libproxy.csun.edu/login?url=https://search-proquest-com.libproxy.csun.edu/docview/2172451034?accountid=7285
- Moffitt, B. (2018, November 16). Now Living Side by Side. Retrieved from http://www.capradio.org.libproxy.csun.edu/articles/D2382736458.
- Mordor Intelligence. Wine Market Growth, Trends, and Forecast (2019 2024). Retrieved from https://www.mordorintelligence.com/industry-reports/wine-market.
- Morris, J. (September 1, 2015). Devastating Fires Show Forest Management Reforms Are Badly Needed. Policy Brief, Reason Foundation. Retrieved from https://reason.org/policy-brief/forest-fires-management-reform/.
- Pacific Gas and Electric Amended Wildfire Safety Plan (n.a., February 6, 2019). Retrieved from https://www.pge.com/pge_global/common/pdfs/safety/emergency-preparedness/natural-disaster/wildfires/Wildfire-Safety-Plan.pdf.
- Paradise CA Camp Fire Advocating for Mental Health. (n.a., Feb 28, 2019). Retrieved from https://newstartrecoverysolutions.com/paradise-ca-camp-fire-advocating-mental-health/.
- Paris, F. (2019, March 01). PG&E Says Its Equipment Likely Caused Camp Fire. Retrieved from https://www.kqed.org/news/11729842/pge-says-its-equipment-likely-caused-camp-fire-as-investigation-continues.

- Rainey, J. (August 16, 2019). After the fire in Paradise, a bittersweet back-to-school for a town still reeling. *Los Angeles Times*. Retrieved from https://www.msn.com/en-us/news/us/after-the-fire-in-paradise-a-bittersweet-back-to-school-for-a-town-still-reeling/ar-AAFTxSF.
- Rice, D. (2019, January 8). California's Camp Fire Costliest Disaster in 2018. USA Today, p. 08A. Retrieved from http://go.galegroup.com.libproxy.csun.edu/ps/i.do?&id=GALE%7CA568762831&v=2.1&u=csunorthridge&it=r&p=ITOF&sw=w
- Stampler, L. (2018, November 15). From the Standard Hotel to Shake Shack, Here's How Businesses Are Helping California's Fire Victims and Evacuees. Retrieved from http://fortune.com/2018/11/15/california-fire-update-companies-help/.
- Steinbuck, M. R. (n.d.). Explaining political ecology and social ecological systems: Poststructural political ecology and the socio-ecological system. https://marksteinbuck.wordpress.com/words/poststructural-political-ecology-and-the-socio-ecological-system/.
- Systems Theory. (n.d.). Retrieved from http://www.academicroom.com/topics/what-is-systems-theory.
- Tatko-Peterson, A (November 20, 2018). closer look at 27 wineries damaged by wine country fires. The Mercury News. Retrieved from https://www.mercurynews.com/2017/10/16/a-closer-look-at-the-22-wineries-damaged-by-wine-country-fires/.
- 10 of the deadliest natural disasters in 2018. (November 26, 2018). WTOP, U.S. News and World Report. Retrieved from https://wtop.com/world/2018/11/10-of-the-deadliest-natural-disasters-in-2018/
- The California Department of Forestry and Fire Protection (Cal Fire). (2019, January 4). Camp Fire Incident Information. Retrieved from http://cdfdata.fire.ca.gov/incidents/incidents_details_info?incident_id=2277
- Trees as a Source of Greenhouse Gases. (n.a. February 17, 2010). https://www.seeker.com/trees-as-a-source-of-greenhouse-gases-1765024527.html.
- U.S. Census Bureau. (2018). QuickFacts: Butte County, California. Retrieved from https://www.census.gov/quickfacts/buttecountycalifornia
- Visit California. (2019, March 21). California Lodging Report February 2019. Retrieved from https://industry.visitcalifornia.com/en/Research/Report/California%20Lodging%20Report %20February%202019
- Wootson, C. R., Jr. (2018, November 25). Camp Fire, the Deadliest Wildfire in California's History, Washington Post. Retrieved from http://link.galegroup.com.libproxy.csun.edu/apps/doc/A563314932/ITOF?u=csunorthridg e&sid=ITOF&xid=6193cf66.
- Yin, R. K. (2014). Case Study Research Design and Methods, 5th Edition. Thousand Oaks, CA.: Sage Publications.
- Zaveri, M. (2018, November 15). As Inmates, They Fight California's Fires. As Ex-Convicts, Their Firefighting Prospects Wilt. Retrieved from https://www.nytimes.com/2018/11/15/us/california-paying-inmates-fight-fires.html.