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Safety and Security in U.S. Hotels

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by Cathy A. Enz, Ph.D.

Cornell University
School of Hotel Administration

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by Cathy A. Enz

EXECUTIVE SUMMARY

An investigation of the physical attributes or features that signal safety and security in a sample of 5,487 U.S. hotels revealed significant differences in the distribution of these key amenities in various hotel price segments and geographical locations. Differences in these physical attributes were also found among hotels of various sizes, ages, and locations (e.g., urban, airport, small town). An analysis of hotel index scores across several different categories revealed an average safety-index score of 70 and a security index score of 64 out of a possible score of 100. Overall, luxury and upscale hotels, airport and urban hotels, large properties, and new hotels are most likely to maintain a high level of safety and security amenities. In contrast, old, small, and budget motels are the properties most challenged in providing those safety and security features.

ABOUT THE AUTHOR

Cathy A. Enz, Ph.D., is the Lewis G. Schaeneman, Jr. Professor of Innovation and Dynamic Management and a full professor in strategy at the Cornell University School of Hotel Administration, where she has served as associate dean for industry research and affairs and as the executive director of the Center for Hospitality Research (cae4@cornell.edu). Author of over eighty journal articles and book chapters, as well as three books in the area of strategic management, her research has been published in numerous academic and hospitality journals, including *Administrative Science Quarterly, Academy of Management Journal, Journal of Service Research,* and *Cornell Hospitality Quarterly*. She also developed the Hospitality Change Simulation, a learning tool for the introduction of effective change, as well as three other strategy courses, which are available as an online education program of eCornell. A frequent presenter of executive education programs around the world, she consults extensively in North America and serves on the board of directors of two privately owned hotel companies.

Safety and Security in U.S. Hotels

by Cathy A. Enz

The tragic attacks on hotels in Jakarta in July 2009 are another reminder of the vulnerability of hotels to potential safety and security threats. The continuous flow of people in and out of a hotel makes it a "soft target" for harm, and poses a challenge to the property's security and to the safety of the people in that hotel.[1] Preserving customer service standards and ensuring safety in the quasi-public spaces of hotel buildings is challenging since it is often difficult to distinguish among guests, legitimate visitors, and people who are potential threats. Moreover, hoteliers find it awkward to maintain the highest possible standards of safety while preserving a hotels' hospitable and welcoming image.

[1] B. Hennelly, "How Safe Are Hotels and Other Urban Spaces?," WNYC.Org., http://www.wnyc.org/news/articles/118764 (April 10, 2009).

The physical attributes and features that signal safety and security are part of the overall "servicescape," or physical elements of a consumption setting, and help to define the service experience.[2] Visible safety features and safety documentation have been found to play a key role in shaping meeting planners' site selection choices.[3] Others have reported that safety and security attributes vary with the age of a hotel, its geographic location, and the market segment.[4] Further, travelers report a willingness to pay more if safety and security features are provided, suggesting that managers may obtain a return on their investments for offering these hotel attributes.[5]

The study reported here investigates the degree to which hotels vary in their visible safety and security features. While the words "safety" and "security" are often used interchangeably, the two concepts differ in their focus. Safety involves protecting employees and customers within the hotel property from potential injury or death. Thus, safety issues deal with the effects of accidents, hazardous materials, and fire.[6] In addition to the safety issues, hotel security goes beyond protecting employees and guests and is also concerned with preserving guests' possessions and the property itself. Security issues involve such matters as theft and violent crime. Indeed, some experts include safety as a category of security

2 Tyra W. Hilliard and Seyhmus Baloglu, "Safety and Security as Part of the Hotel Servicescape for Meeting Planners," *Journal of Convention and Event Tourism*, Vol. 9, No. 1 (2008), pp. 15-34; K.D. Hoffman, S.W. Kelley, and B.C. Chung "A CIT Investigation of Servicescape Failures and Associated Recovery Strategies," *Journal of Services Marketing*, Vol. 17 (2003), pp. 322-340; and M.J. Bitner, "The Impact of Physical Surroundings on Customers and Employees, *Journal of Marketing*, Vol. 56, No. 2 (1992), pp. 57-71.

3 Hilliard and Baloglu, *op.cit.*

4 Cathy A. Enz and M. Taylor, "The Safety and Security of U.S. Hotels: A Post September 11th Report," *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 43, No. 5 (2002), pp. 119-136; and Cathy A. Enz, "The Physical Safety and Security Features of U.S. Hotels," *Cornell Hospitality Quarterly*, Vol. 50, No. 4 (forthcoming, November 2009).

5 Lisa Slevitch and Sharma Amit, "Management of Perceived Risk in the Context of Destination Choice," *International Journal of Hospitality and Tourism Administration*, Vol. 9, No. 1 (2008), pp. 85-102; and Julie Feickert, Rohit Verma, Gerhard Plaschka, and Chekitan S. Dev, "Safeguarding Your Customers: The Guest's View of Hotel Security," *Cornell Hotel and Restaurant Administration Quarterly*, Vol. 47 No. 3 (August 2006), pp. 224-244.

6 Raymond C. Ellis, Jr., and David M. Stipanuk, *Security and Loss Prevention Management* (East Lansing, MI: Educational Institute of the AH&LA, 1999).

Exhibit 1

Sample description

Location	Number of Hotels	Percentage of Sample
Urban	722	13.2
Suburban	2,362	43.0
Airport	409	7.5
Interstate	564	10.3
Resort	425	7.7
Small Metro or Town	1,005	18.3

Price Segments	Number of Hotels	Percentage of Sample
Luxury	1,241	22.6
Upscale	2,162	39.4
Midprice	1,410	25.7
Economy	368	6.7
Budget	306	5.6

Number of Rooms	Number of Hotels	Percentage of Sample
Less than 50	475	8.7
50-64	499	9.1
65-94	1,074	19.6
95-129	1,282	23.4
130 or more	2,157	39.3

Property Age	Number of Hotels	Percentage of Sample
Less than 8 years	1,237	22.5
8–14 years	1,394	25.4
15–19 years	491	8.9
20–29 years	1,143	20.8
30+ years	1,222	22.3

Note: Total sample *N* = 5,487.

issues. Following the distinctions offered by the experts, this paper treats safety as a particular form of security that focuses on the protection of guests from injuries (whether from accidents or criminal activity).

The Study

The data used in this study were drawn from the American Hotel and Lodging Association's (AH&LA) 2008 Lodging Survey, which is distributed annually to general managers throughout the United States.[7] All hotels in the U.S., including those of non AH&LA members, are given the opportunity to participate in the survey. The survey was distributed to 45,000 properties, and reported a response from 8,448 hotels, of which 5,487 questionnaires were complete for all of the relevant security questions. Exhibit 1 provides descriptive statistics for the key categorical variables. The frequencies and percentage of the sample by hotel location, price segment, property age, and number of rooms are shown in this exhibit.

[7] American Hotel and Lodging Association 2008 Lodging Survey. See: www.ahla.com/pressrelease.aspx?id=22450.

Exhibit 2

Index attributes

Each hotel was given a 1 if it had the physical attribute and a 0 if it did not. Each hotel's score was determined by taking the presence or absence of the attribute and multiplying it by the weighting for that specific attribute. A score of 100 would mean that the hotel possessed all of the physical features in the index. The presence of some but not other features would produce a score greater than 0 and less than 100.

Safety Index		Security Index	
Physical Feature	**Weighting**	**Physical Feature**	**Weighting**
Sprinklers	0.30	Electronic Locks	0.25
100% Smoke Free	0.25	Safety Material	0.10
Safety Material	0.20	Safety Video	0.10
Safety Video	0.15	Interior Corridor	0.20
Security Camera	0.10	Security Camera	0.20
		Safe in Room	0.15

Creating the Indexes

Safety equipment includes items such as sprinklers, smoke-free guest rooms, security cameras, and guest-safety instructions, while security features include electronic locks, in-room safes, interior corridors, and safety materials. This study employs two indexes, one measuring safety amenities and the other gauging security equipment. The safety and security indexes created for this study were based on those I used with Masako Taylor in a previous examination of this topic.[8] However, I modified the indexes to reflect the changes in the 2008 Lodging Survey.

While this inventory of various physical-safety and -security features is by no means exhaustive, it does reflect key safety issues. I must also note that the mere presence of such equipment as electronic locks and security cameras does not guarantee guests' safety or security in the absence of personnel who are well trained to implement a fully developed emergency plan. On the other hand, a hotel would be hard pressed to implement an effective security system in the absence of appropriate equipment.

Because some features are more important than others are to a hotel's (and a guest's) safety and security, each feature was weighted on its relative importance, based on consultation with hospitality-industry property-management experts, and the existing literature that distinguishes which elements are of key importance. The two indexes were created by assigning weights to the two sets of items, as shown in Exhibit 2. Greater weight was accorded in the safety index to sprinklers, for instance, than to safety-instruction materials, such as in-room safety videos. In the security index, electronic locks received the greatest weight, while security cameras

[8] Enz and Taylor, *op.cit.*

and interior corridors earned lower weights.

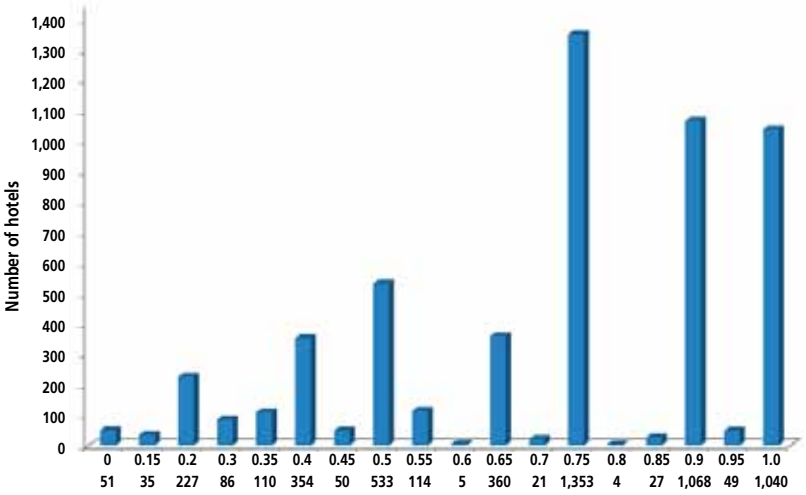
Findings

The higher the hotel's score on each index, the greater the level of its safety and security equipment. The average safety-index score for our sample is 70 percent, compared to a possible perfect score of 100 percent (if all the safety and security features listed in the 2008 lodging survey were present in a hotel). The average security-index score is 64 percent. These numbers suggest that U.S. hotels score generally higher on physical-safety attributes than they do on the broader security features that include both protecting individuals (safety) and also safeguarding their possessions. The standard deviation for the safety-index was 23.3, while the standard deviation for the security-index was 20.2. These relatively large deviations suggest considerable variation across hotels in their safety and the security efforts. Exhibits 3 and 4 show the frequency distribution for the two indexes.

I found a strong correlation between a hotel's location and the extent to which it has safety and security features. Urban, suburban, and airport hotels appear to score higher on safety and security than do hotels located along highways, in resorts, or small metropolitan areas, as shown in Exhibit 5 (on the next page). The lowest scores are found for hotels in small towns. A one-way analysis of variance test for the mean differences in safety and security scores for hotels in different locations revealed statistically significant differences for both security and safety.[9] While this analysis reveals that hotels in diverse locations operate with different levels of risk, it is interesting to note that perceived risks may be higher in airport and urban areas than they are in small towns or resort locations. Thus, it is important for big-city hoteliers to provide additional physical features in the "servicescape" to offer reassurance to their guests.

Exhibit 3

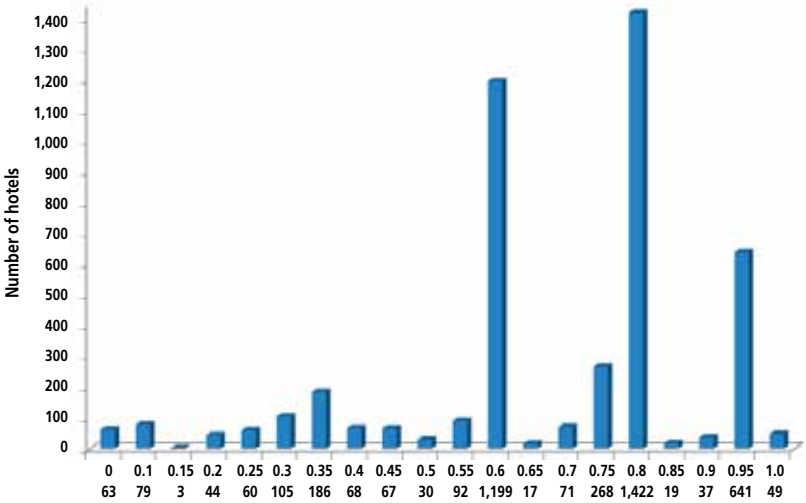
Hotel safety index score distribution



Note: Mean = .70; Standard deviation = .233; *N* = 5,487.

Exhibit 4

Hotel security index score distribution

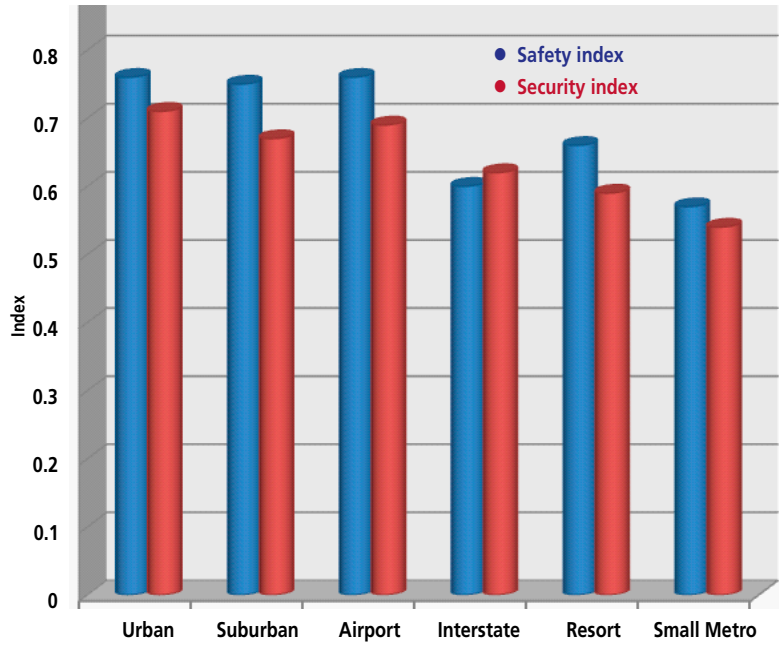


Note: Mean = .64; Standard deviation = .202; *N* = 4,520.

[9] Security (F = 79.55 $p < .001$); safety (F = 137.46, $p < .001$).

Exhibit 5

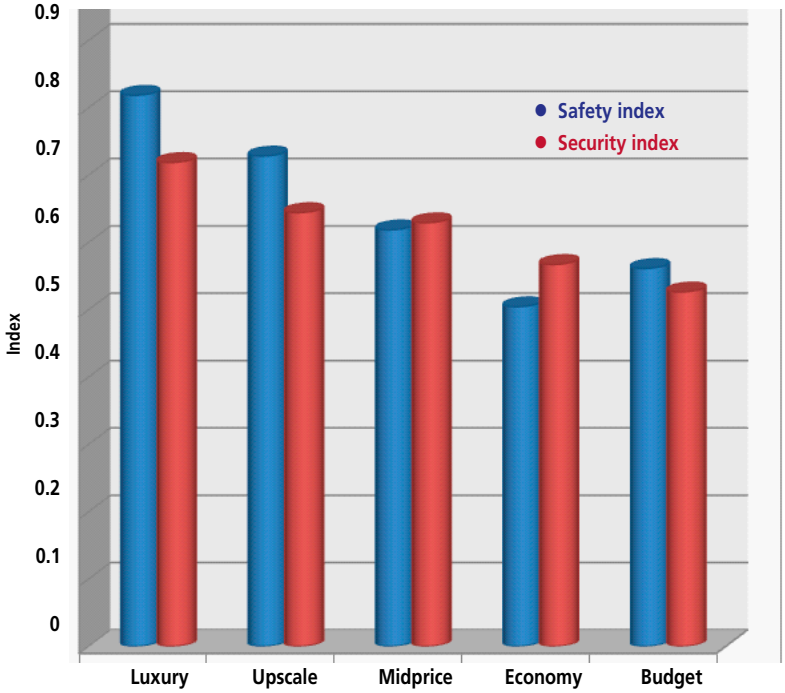
Mean safety and security index scores by location



	Urban	Suburban	Airport	Interstate	Resort	Small Metro
Safety index	0.76	0.75	0.76	0.60	0.66	0.57
Security index	0.71	0.67	0.69	0.62	0.59	0.54

Exhibit 6

Mean safety and security index scores by hotel price segment



	Luxury	Upscale	Midprice	Economy	Budget
Safety index	0.82	0.73	0.62	0.50	0.56
Security index	0.72	0.64	0.63	0.57	0.53

The "servicescapes" of higher end hotels often appear to be more secure and safe than those of lower-end hotels. To explore whether hotels differ on safety and security according to price segment, I conducted an analysis of variance test on the different hotel price segments. The results reveal that security features and safety features do vary by hotel price segment.[10] Exhibit 6 shows the mean scores by price segment. The survey revealed that the highest safety and security scores are for luxury hotels, and that progressively fewer safety and security features are present in the lower-price segments. Thus, the perception that higher-price hotels contain more physical safety and security features than hotels in other price segments is not surprising.

Two additional attributes, the size and the age of the hotel, might explain the variation in the presence of safety and security features. Smaller and older hotels may invest in fewer features, reflecting decisions to conserve resources or the costs of modifying existing facilities. As shown in Exhibits 7 and 8 (on the next page), larger and newer hotels tend to have higher scores on both the safety and the security indexes than do their smaller and older competitors.

One-way analyses of variance reveal that significant differences exist on these indexes according to a hotel's age and size, in terms of number of rooms. Hotels with fewer than 64 rooms score substantially lower on the safety index than do hotels with a higher room count. Regarding the security index, by contrast, the dividing point seems to be 50 rooms in this instance. Hotels with between 50 and 64 rooms are more akin to larger hotels on the security index, while hotels with under 50 rooms scored far lower on security than any other group of hotels did. New hotels (less than 8 years old) offer the most comprehensive array of safety and security amenities, but lower scores are most notable for the oldest hotels in the sample (30 years or older).

[10] Security features ($F = 73.31$ $p < .001$); safety features ($F = 265.13$, $p < .001$).

Conclusion

The safety and security indexes offer a preliminary glimpse into the elements of the "servicescape" that signal comfort and security to the guest. The results reveal that hotels are significantly different in the degree to which they have invested in these features, which are meant to protect guests and employees and to provide a secure environment. While the indexes focus on the existence of various features and not on the effectiveness of their use, the results do suggest that hotels vary significantly on the degree to which they have provided these physical features. Additional analysis of the link between these indexes and average rack rate can be found in a paper on this topic appearing in the November 2009 *Cornell Hospitality Quarterly*.[11] In that paper, safety and security scores were positively correlated with the published rate of the hotels, even when controlling for hotel size, age, location, and price segment.

On balance, luxury and upscale hotels, airport and urban hotels, large properties, and new hotels are most likely to maintain a high level of safety and security amenities, a finding that replicates the study I conducted with Masako Taylor over a decade ago.[12] Hotels in higher-end price segments and urban locations offer more features than do hotels in economy or budget segments in resort or small town settings. Larger and newer hotels are outfitted with features such as electronic locks, security cameras, sprinklers, and interior corridors that might be missing in lower-end or smaller properties. In contrast, old, small, and budget motels are the properties most challenged in providing those safety and security features that we studied.

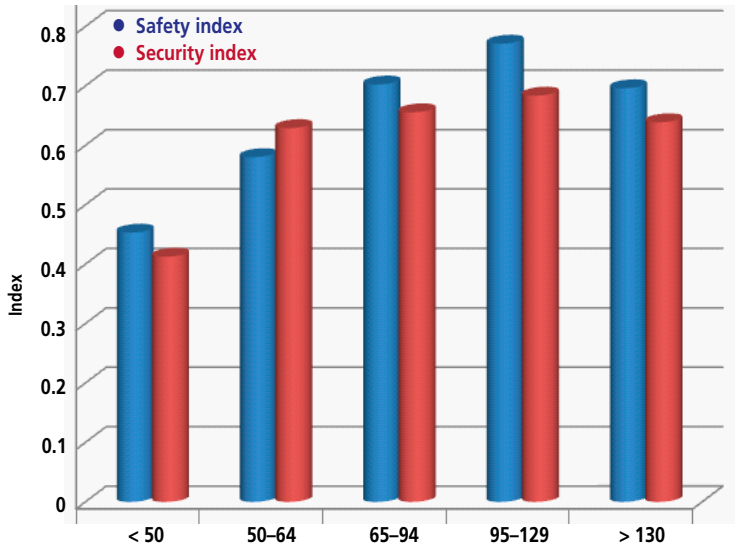
It is hoped that the research presented in this report provides baseline data for benchmarking the physical attributes that signal safety and security in U.S. hotels. Future work should be conducted on hotels around the world. ■

[11] Enz, forthcoming, *op.cit.*

[12] Enz and Taylor, *op.cit.*

Exhibit 7

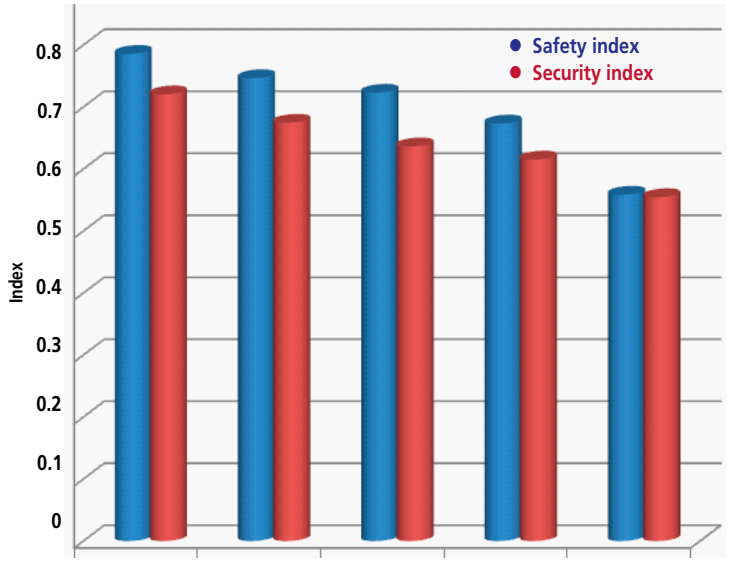
Mean safety and security index scores by number of rooms



	< 50	50–64	65–94	95–129	> 130
Safety index	0.45	0.58	0.70	0.77	0.70
Security index	0.41	0.63	0.66	0.68	0.64

Exhibit 8

Mean safety and security index scores by hotel age



	< 8 years	8–14 years	15–19 years	20–29 years	> 30 years
Safety index	0.79	0.75	0.72	0.67	0.56
Security index	0.72	0.67	0.65	0.62	0.55

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