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## Why Discounting Still Doesn't Work

A Hotel Pricing Update

By Linda Canina, Ph.D., and Cathy A. Enz, Ph.D.

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## Executive Summary

# Why Discounting Still Doesn't 

## Work:

## A Hotel Pricing Update

by Linda Canina and Cathy A. Enz

TThis report presents an update and an extension of a study issued in a previous CHR Report in which we found that discounting relative to the competitive set increases occupancy, but hotels make more money when they resist the temptation to discount to fill rooms.

As explained in the first study, data from 2001 through 2003 showed that when a given hotel discounted its room rates to a greater degree than did its competitive set, the result was decreased RevPAR compared to that competition, even though relative occupancy increased. Conversely, those with higher prices relative to their competitive set had lower occupancy and higher RevPAR. The dynamics between price and occupancy remained stable across market price segments, but the degree to which higher relative prices affected relative occupancy varied by market segment.

The question this report addresses is whether 2001 through 2003 was an unusual period-given that those years saw the disaster of $9 / 11$, a recession, and hurricane damage in Florida and elsewhere.

In this study, the previous years' results continue to hold up in 2004, clearly a good year for the hotel industry. The same pattern emerges when we categorize the data by location or by major metropolitan markets in addition to market price segment. Specifically, hotels that discount relative to their competitive set have higher occupancy and lower RevPAR than do their competitors. On the other hand, hotels that charge a premium relative to their competitive set have lower occupancy and higher RevPAR than their competitors do. In the overall sample, hotels that charged a relative premium of at least 2 percent achieved lower occupancy than that of their competitors. While hotels that discounted at the most 2 percent or charged a relative premium have higher RevPAR than their competitors recorded.

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## CHR Reports

# Why Discounting Still Doesn't Work: 

## A Hotel Pricing Update

by Linda Canina and Cathy A. Enz

In 2004 the lodging industry experienced the largest year-to-year percentage increase in $\operatorname{RevPAR}$ ( 7.8 percent) that it has recorded in ten years. ${ }^{1}$ One advantage of the industry's comeback is that we have the opportunity to explore whether competitive pricing operates differently in rising markets than it does in falling markets. The tough economic times that faced the lodging industry after 9/11 led many hotel operators toward discounting in hopes of stimulating consumer demand, capturing additional market share from their competitors, and augmenting revenue. In 2001 there was a 6.9 -percent drop in RevPAR, followed by a 2.6 -percent RevPAR drop in 2002 and a slight 0.6 -percent rise in 2003 . When we explored pricing behavior in a study of over 6,000 hotels between 2001 and 2003, the results were clear that hotels in direct competition made more money when they maintained comparatively higher prices and did not discount to fill rooms. ${ }^{2}$

This report returns to the question of competitive pricing and explores whether our

[^1]earlier findings hold up in a different economic circumstance. That is, we wanted to know whether hotels with lower prices relative to their competitive set captured market share from the competition and gained higher RevPAR in 2004. During the recessionary period of 2001 through 2003, hotels with higher prices relative to their competitive set recorded lower occupancy and higher RevPAR than did their competitors, suggesting that holding rates constant when competitors are discounting (or even raising prices) was a revenue-enhancing
strategy. We wondered whether this relationship still held true during the industry's rebound. This report examines the relationship between pricing strategy and the average percentage difference in RevPAR and occupancy for 6,913 hotels relative to their competitive sets. We also explore this phenomenon separately for each price segment (e.g., economy, midscale, luxury hotels). Finally, we extend our previous work by analyzing pricing behavior by hotel location (i.e., urban, suburban, airport, interstate [highway], resort and small metro or town) and major metropolitan areas.

## The 2004 Study

This study was conducted in cooperation with The Center for Hospitality Research at Cornell University and Smith Travel Research (STR), using data drawn from the STR database, which is effectively a census of brand-name hotels in the United States. This comprehensive sample is widely considered to be fully representative of all branded hotels in the United States. ${ }^{3}$ The focus of this study is a comparison of individual hotels with their direct competitors in local markets.

To ensure that our study captures the competitive pressures which accompany pricing activities, we compare a hotel's pricing strategies to that of its competitive set of hotels. The competitive set is a key element of this study, for the following reason. The debate continues over the factors that affect industry-wide demand (occupancy), and individual hotels' occupancy is influenced by the actions of their direct competitors. If local competing hotels drop prices, owners and operators often feel pressure to drop their own prices to maintain parity with their competitive set and avoid losing market share. This study explores such local pricing dynamics by documenting the empirical relationship of occupancy and RevPAR performance with a hotel's pricing deviations from its local competitors. We believe that by analyzing each hotel's performance against that

[^2]of its individually selected competitive set of hotels (generally six to ten geographically proximate properties), we can more closely identify the effects of pricing actions on performance under equivalent market conditions.

Using annual property-level data each year for 2001 through 2004, we document the relationship between the relative-pricing strategies of hotels to their occupancy and RevPAR performance. More specifically, we explore what happens to the percentage difference in annual RevPAR for a hotel relative to a hotel's competitive set and to the percentage difference in annual occupancy when that hotel increases or decreases its own annual ADR compared to the annual ADR of its competitive set. The data consist of rooms revenue, rooms sold, and rooms available for the focal hotel and for each hotel's competitive set. We analyzed both RevPAR and occupancy because increased revenues are (or should be) more important than the number of rooms occupied. We calculated the percentage difference between each focal hotel and its competitive set for both an-

## We conclude that in aggregate hotels maintain a more or less consistent pricing relationship with their competitive set during recession, recovery, and prosperity.

nual occupancy and RevPAR. For example, the percentage difference in RevPAR is computed as the annual RevPAR of the focal hotel less the annual RevPAR of the competitive set divided by the annual RevPAR of the competitive set, and then multiplied by 100 (to express the number as a percentage). The data summarized in the following results are the mean percentage differences in RevPAR and occupancy for the focal hotels as compared to each hotel's competitive set, at various levels of percentage price differences.

Percentage of hotels in each price category by year

| Percentage <br> Price Difference <br> from Competitive Set | Percentage <br> in each Group |  |  |  |
| :---: | ---: | ---: | ---: | ---: |
| 12-15\% Lower | 2001 | 2002 | 2003 | 2004 |
| 10-12\% Lower | $5.01 \%$ | $6.12 \%$ | $6.43 \%$ | $6.02 \%$ |
| 8-10\% Lower | $7.27 \%$ | $4.99 \%$ | $5.81 \%$ | $6.08 \%$ |
| 6-8\% Lower | $8.04 \%$ | $6.97 \%$ | $6.28 \%$ | $6.39 \%$ |
| 4-6\% Lower | $8.29 \%$ | $8.97 \%$ | $8.13 \%$ | $7.78 \%$ |
| 2-4\% Lower | $9.40 \%$ | $9.83 \%$ | $9.14 \%$ | $8.55 \%$ |
| 0-2\% Lower | $10.40 \%$ | $10.06 \%$ | $9.81 \%$ | $9.33 \%$ |
| 0-2 \% Higher | $9.85 \%$ | $9.49 \%$ | $9.86 \%$ | $9.50 \%$ |
| 2-4\% Higher | $8.61 \%$ | $8.59 \%$ | $8.39 \%$ | $8.94 \%$ |
| 4-6\% Higher | $7.36 \%$ | $8.00 \%$ | $7.85 \%$ | $7.57 \%$ |
| 6-8\% Higher | $6.19 \%$ | $6.56 \%$ | $6.64 \%$ | $6.83 \%$ |
| 8-10\% Higher | $5.37 \%$ | $5.22 \%$ | $5.25 \%$ | $5.22 \%$ |
| 10-12\% Higher | $4.01 \%$ | $4.09 \%$ | $3.75 \%$ | $4.22 \%$ |
| 12-15\% Higher | $4.07 \%$ | $3.89 \%$ | $3.81 \%$ | $3.88 \%$ |
| Overall |  |  |  |  |
| 0-15 \% Lower | $54.54 \%$ | $54.15 \%$ | $54.47 \%$ | $53.84 \%$ |
| 0-15\% Higher | $45.46 \%$ | $45.85 \%$ | $45.53 \%$ | $46.16 \%$ |

Relationship, not causality. It is important to note that this study is about the relationship between relative rate differences and relative revenue differences. Hence, the data analysis presented here does not permit conclusions about causality. The percentage difference in ADR (relative to the hotel's competitive set) was used as the basis for making comparisons among the pricing strategies of hotels. The pricing strategy of a given hotel in a given year was categorized into a particular group based on the hotel's percentage difference in ADR. These pricing-strategy groups ranged from a category containing hotels that priced 15 -percent lower than did the competitive set to a group of hotels that priced 15 -percent higher than the competitive set did.

In addition, since the purpose of this study is to analyze the relationship of various pricing strategies with occupancy and RevPAR performance, it is important that the data sample contain only legitimate competitors. To that end, we excluded performance outliers
from the data sample. Performance outliers are those properties in which the percentage difference in annual RevPAR for the preceding year (e.g., 2002 for the sample of hotels in 2003) exceeded one standard deviation from zero in absolute value. That is, a focal hotel was included in the sample in the year 2003 if the percentage difference in its RevPAR relative to its competitive set was within one standard deviation of zero in the year 2002. As a result, we can be sure that it is possible for each of the hotels included in the sample to obtain RevPAR similar to that of its competitive set. We can then conclude that the results are due to differences in pricing strategies and not by performance outliers.

## Still Pricing Below the Competition?

A common position is that discounting is essential during tough economic times. Extending this logic, we would expect to see aggressive pricing during an industry boom. That is, fewer hotels should have set prices much lower than did their competitive set in 2004 as the industry began to recover. To determine whether this is the case, we grouped hotels by price position, which is the percentage difference of each hotel's ADR above or below the ADRs of its competitive set for each year. We then computed the percentage of the hotels that fall into each of these pricing strategy groups. These data are shown in Exhibit 1. The percentages in each of the pricing groups remained virtually the same. In 2001, for example, 9.40 percent of the hotels priced between 2 and 4 percent below their competitive set, and the corresponding percentage in 2004 was 9.33 percent. In 2001, 7.36 percent of hotels priced between 4 and 6 percent above their competitive set, while in 2004, 7.57 percent priced 4 -to 6 -percent above. Furthermore, the most frequent relative price discount that hotels maintain (relative to the competitive set) continues to be just under 2 percent. Similarly, in each of the four years, the most popular higher price relative to competitors was in the up-to-2-percent-above category.


To determine whether the proportion of discounting hotels changed over the four-year study period, we summed the percentage of properties that priced below their competitors and the percentage that priced above their competitive set. We saw a slight trend of fewer hotels pricing below their competitors. In 2001, 54.5 percent of the hotels priced below their competitive set, while that figure in 2004 was 53.8 percent. Based on these percentages, we conclude that in aggregate hotels maintain a more or less consistent pricing relationship with their competitive set during recession, recovery, and prosperity. That is, it appears that most hotels set their prices in relation to one another, and hotels generally do not change their pricing strategy relative to the others as
economic conditions change. Because these are aggregate results, we cannot state categorically that most individual hotel managers determine their prices according to what their competitors charge. However, the consistent proportion of hotels in each discount category relative to their competitive sets implies that this is what's occurring.

## Pricing and Performance

Exhibit 2 shows the average percentage difference in occupancy and RevPAR performance for hotels with ADRs either higher or lower than those of their competition. Overall, for hotels that held their price below that of their competitive set, average percentage differences in occupancy was higher, but average percentage

Exhibit 3
Mean RevPAR and occupancy percentage differences, 2001-2004

differences in RevPAR were lower as compared to the competition in each of the four years. For hotels that held their price high relative to their competitive set, on the other hand, average percentage differences in occupancy were smaller, but average percentage differences in RevPAR were greater. This pattern held true for hotels in 2004-a prosperous year-as it did in each of the prior three years, during which the industry experienced recession and recovery. For example, in 2004, hotels that priced 12 - to 15 -percent below their competitors achieved 10.38 -percent greater occupancy, but recorded a 4.44-percent lower RevPAR. As the degree of discounting diminishes, the gain in occupancy shrinks and the loss in RevPAR also falls. Hotels that priced 6- to 8-percent below their competitors, for instance, gained 4.80 percent in relative occupancy and lost 2.51 percent in RevPAR. This pattern holds both for
discounting strategies and strategies of pricing at a premium. Hotels that priced 6 - to 8 -percent above their competitors obtained a lower occupancy ( 1.84 percent lower), but a higher RevPAR ( 5.02 percent higher). In each of the other three years (2001, 2002, and 2003), the same pattern emerged.

As shown in Exhibit 2, in each year the maximum occupancy advantage over the competitive set was obtained by those hotels that had low comparative ADRs. In 2004, for example, hotels with ADRs 12 - to 15 -percent lower than those of their competitive set also had 10.38-percent higher occupancies. While in 2003, hotels that priced 12-to-15-percent lower had 10.05 -percent higher occupancies. Clearly, the strategy of filling the hotel was accomplished by offering relatively low prices in each of the four years. Increased occupancy did not translate into increased revenue for these low-
price hotels, however, as hotels in those groups reported the lowest comparative RevPARs. In 2004 the hotels with prices 12 - to 15 -percent below those of the competition reported annual RevPAR 4.44-percent below those of competitors. In sum, while the goal of increased occupancy was achieved by steep price cutting, the consequence for these hotels was substantially lower RevPARs than those of their competitive set.

Hotels that kept their prices higher than those of their competitive set enjoyed relatively higher revenue. According to the data, the maximum RevPAR performance benefit in 2001 was obtained by hotels that charged prices 10 - to 12 -percent above those of their competitive set. Occupancy suffered, to be sure. Hotels with these extremely high (relative) prices experienced a 3.72-percent lower occupancy, but they recorded the largest comparative RevPAR-6.81-percent higher than that of their competitors. This effect held true for all four years. The hotels that did not undercut their competitors on price, but were instead high-price relative to their competitive set ended each of the four years that we studied with higher comparative revenues per available room.

The average percentage differences in RevPAR and occupancy over the four-year period are shown in Exhibit 3. On average across the four years the percentage difference in RevPAR was negative when hotels kept their prices more than 2 percent below their competitors, while it was positive for hotels that priced from 2 percent below to 15 percent above their competitive set. Occupancy was higher for hotels that priced 15 percent below through 2 percent above their competition. Among hotels that priced more than 2 percent above competitors, occupancy diminished as the pricing premium increased, but relative RevPAR increased with the pricing premium. Hotels with prices within 2 percent below to 2 percent above those of their competitors gained over those competitors in both relative occupancy and RevPAR. We see that a slightly lower ADR is associated with higher occupancy and

## Ехнівіт 4

Percentage of hotels in each price category, by year and market segment, 2001-2004

| Percentage <br> Price Difference <br> From Competitive Set |  | Percentage in each Group |  | 2004 |
| :---: | :---: | :---: | :---: | :---: |
| Market Segment | 2001 | 2002 | 2003 |  |
| Luxury |  |  |  |  |
| 0-15\% Lower | 48.08\% | 48.15\% | 42.62\% | 35.48\% |
| 0-15\% Higher | 51.92\% | 51.85\% | 57.38\% | 64.52\% |
| Upper Upscale |  |  |  |  |
| 0-15\% Lower | 38.60\% | 40.47\% | 43.70\% | 41.46\% |
| 0-15\% Higher | 61.40\% | 59.53\% | 56.30\% | 58.54\% |
| Upscale |  |  |  |  |
| 0-15\% Lower | 47.18\% | 47.78\% | 54.04\% | 48.99\% |
| 0-15\% Higher <br> Midscale with F8B | 52.82\% | 52.22\% | 45.96\% | 51.01\% |
| 0-15\% Lower | 56.33\% | 56.40\% | 52.37\% | 54.11\% |
| 0-15\% Higher | 43.67\% | 43.60\% | 47.63\% | 45.89\% |
| Midscale without F\&B |  |  |  |  |
| 0-15\% Lower | 50.41\% | 48.59\% | 48.07\% | 48.86\% |
| 0-15\% Higher | 49.59\% | 51.41\% | 51.93\% | 51.14\% |
| Economy |  |  |  |  |
| 0-15\% Lower | 73.66\% | 74.93\% | 75.59\% | 74.37\% |
| 0-15\% Higher | 26.34\% | 25.07\% | 24.41\% | 25.63\% |
| Independent |  |  |  |  |
| 0-15\% Lower | 51.76\% | 53.54\% | 48.50\% | 45.95\% |
| 0-15\% Higher | 48.24\% | 46.46\% | 51.50\% | 54.05\% |

higher RevPAR. That is also true, however, of a slightly higher ADR, which is also associated with increased occupancy relative to the competitive set.

## Chain-scale Segment Differences

We now turn to an analysis by chain scale. The STR scale segments, which are based on the actual, system-wide average room rates of major chains, are as follows: luxury, upper upscale, upscale, midscale with food and beverage, midscale without food and beverage, and economy. Independent hotels are treated as a separate category.

Exhibit 4 shows the percentage of hotels in each pricing-strategy category by STR segment for 2001 through 2004. The percentage of hotels that discounted rates decreased from

ExHIIT 5
Mean occupancy-percentage differences by market segment, 2001-2004


2003 to 2004 in the luxury, upper-upscale, and upscale segments, while the percentage of hotels that discounted in the midscale with food and beverage went up slightly between 2003 and 2004. Again, these statistics are in comparison with the competitive set. The percentage of hotels that discounted remained mostly constant between 2003 and 2004 for the midscale segment without $\mathrm{F} \& \mathrm{~B}$ and the economy segment.

Previously, we stated that for the overall sample, there was a slight decrease in the percentage of hotels that price below their competitive set over the 2001-through-2004 period. This observation is driven by changes in the luxury, upper-upscale, and upscale segments, but does not describe the other segments. For
the entire sample, the percentage of hotels that discounted relative to their competitive set for the entire sample decreased only slightly over this period because the midscale with $F \& B$ segment alone represents about 18 percent of the sample observations, while the luxury, upper upscale, upscale and independent segments combined represent about 20 percent.

Thus, it is clear that the overall observation regarding pricing stances does not hold for individual chain-scale segments. For example, many luxury hotels changed their pricing strategy in 2004. In 2003, 42.62 percent of the luxury properties priced less than their competitive set, while in 2004, that figure was 35.48 percent. Similar to luxury hotels, independent properties also showed a large reduc-
tion in discounting in 2003 and 2004 relative to 2001 and 2002. In 2003, 48.50 percent of the independent hotels charged less than their competitive sets, and 2004, that figure sank to 45.95 percent, while in 2001, the number was 51.76 percent, and and 53.54 percent in 2002.

The price elasticity of demand is defined as the percentage change in quantity demanded for a 1 -percent change in price. The crossprice elasticity of demand is the percentage change in quantity demanded for a 1 -percent change in the price of substitutes. It is a commonly held view that lodging properties in the mid-price and economy markets are more sensitive to own-price and cross-price effects than are upper-upscale and upscale properties. Furthermore, price effects are expected to be progressively greater for hotels in the downscale price segments (i.e., midscale without food and beverage and economy). This is based on the assumption that price decreases and increases are relatively more important to consumers of the low-end segments than they are to consumers of the high-end segments. Even though we are not directly estimating the own-price and cross-price elasticities of demand, this view suggests that properties in low-price segments are more sensitive to differences in relative ADRs than are properties in high-price segments. As a result, we would expect to find that the percentage change in occupancy is highest among the mid-price and economy properties.

To test this effect, we computed the average percentage difference in occupancy and RevPAR by market segment across the four years for each of the pricing strategies. ${ }^{4}$ We analyzed the average over the period rather than the annual numbers to reveal the general relationship rather than the results in a specific year. The results, shown here in Exhibit 5 and overleaf in Exhibit 6, show that the percentage differences in occupancy and RevPAR vary

[^3]across the market segments. For example, for the two deepest-discounting groups, with ADRs that are 10 - to 15 -percent below or 5 - to 10 -percent below those of the competitive set, the percentage occupancy boost for economy hotels is the highest, at 10.20 percent for the 10 - to 15 -percent-discount group, and at 6.23 for the 5 - to 10 -percent-discount group. Also, for the three pricing strategy groups with the highest relative ADR , 10 - to 15 -percent, 5 to 10 -percent, and 2 - to 5 -percent above the competition, the percentage occupancy penalty is the highest for economy hotels. Comparative occupancy reduction was 9.52 percent for the 10 - to 15 -percent ADR-premium group, 5.67 percent for the 5 - to 10 -percent set, and 3.06 percent for those with ADRs 2- to 5-percent above competitors.

The percentage change in occupancy for the midscale without $F \& B$ segment shows the greatest sensitivity to relative ADR differences when the percentage difference in ADR is up to 2 -percent lower or 2 - to 5 -percent lower than that of the competitive set. The economy segment is the only one that has lower occupancy than the competition (a slim 0.05 percent) when ADRs are up to 2-percent lower than those of competitors. It is interesting that upper-upscale, upscale, and midscale without food and beverage properties continue to maintain an occupancy advantage above their competitive sets even when their ADRs reach 5-percent higher than those of their competitors. The upper-upscale segment achieves the highest gain in occupancy when the ADR difference is no more than 2 percent, and upscale records the highest occupancy difference when prices are 2- to 5-percent higher.

Independent properties generally gain the least occupancy when they discount relative to their competition. Similar to the economy segment, they have lower occupancy than their competitive set when they discount no more than 2 percent below their competitors. Also like the economy segment, independents lose the most occupancy when they charge a relative premium.


The data in Exhibit 6 suggest that ADR differences have the least effect on the percentage difference in RevPAR of properties in the economy segment, even though that group's occupancy differences were among the highest. When these hotels price 10 - to 15 -percent below their competition, their RevPAR differences are lower than those of their competitors, and when they price 10 - to 15 -percent above their competition, their percentage gain in RevPAR above the competition is also the lowest. This implies that properties in this segment are subject to ready substitution. That is, economy properties may experience the lowest brand loyalty of all segments. For example, when economy properties offer deep discounts relative to their competitive set, they gain occupancy from their competitors (and perhaps also from higher price segments) so that their loss in RevPAR is reduced. On the other hand
when those hotels charge a premium, their guests find it beneficial to switch patronage to their competitors (and perhaps move to a higher priced segment). This situation is associated with the greatest reduction in occupancy. However, even though they lose a substantial number of customers the additional ADR beyond that of their competitive set results in higher RevPARs.

Exhibits 5 and 6 are useful in analyzing the differences for each of the price segments relative to the overall sample. As stated previously, for the entire sample, we found a consistent pattern in the percentage change in RevPAR and occupancy with changes in relative price. As the percentage change in ADR relative to the competitive set increases, the percentage difference in RevPAR changes from negative to positive and increases in magnitude. At the same time, the percentage change in occupan-
cy shifts from positive to negative, while decreasing in magnitude. The same relationship holds for each of the segments, but the points at which the change from negative to positive occurs are different for the various segments.

For the overall sample, the comparative RevPAR was positive when ADR ranged from 2 percent below through 15 percent above that of the competition. On the other hand, the comparative percentage in occupancy was negative when ADR was 2 - to 15 -percent above that of the competitive set. Occupancy loss for economy and independent hotels relative to their competitors occurred even when those properties discounted slightly below their competitors, that is, up to 2 percent lower. For the luxury and midscale with $\mathrm{F} \& B$ segments, occupancy loss relative to the competition occurred when ADRs were as little as 2 percent above those of their competitors. In contrast, properties in the upper-upscale, upscale, and midscale without $\mathrm{F} \& \mathrm{~B}$ segments recorded lower occupancies than their competitors only when their ADRs were 5 - to 10 -percent (or more) above those of their competitors. The luxury, upper-upscale, upscale, and midscale without F\&B segments achieved positive percentage differences in RevPAR with ADRs up to 2 percent below those of their competitors. While the midscale with food and beverage, economy, and independent hotels did not gain RevPAR advantages relative to their competitors until they charged a 2- to 5 -percent premium (or better).

## Location Differences

We now turn to an analysis by location. The STR location categorization is as follows: urban, suburban, airport, interstate (highway), resort, and small metro or town. Exhibit 7 shows the percentage of hotels that discounted relative to their competitive set by location over the 2001 through 2004 period. The percentage of hotels that discount in urban and in small metro or town locations is slightly lower than the percentages in other locations. On average across the four years, 53.47 percent of urban and 53.05

Exнівіт 7
Hotel pricing: mean proportion of hotels offering discounts and premiums by location, 2001-2004

| Location | Discount | Premium |
| :--- | ---: | ---: |
| Airport | $55.40 \%$ | $44.60 \%$ |
| Interstate | $56.09 \%$ | $43.91 \%$ |
| Suburban | $54.17 \%$ | $45.83 \%$ |
| Urban | $53.47 \%$ | $46.53 \%$ |
| Resort | $56.15 \%$ | $43.85 \%$ |
| Small Metro/Town | $53.05 \%$ | $46.95 \%$ |

percent of small metro or town hotels discounted relative to their competitors, while about 54.25 percent of all hotels discount relative to their competitive set. Suburban hotels discounted slightly less frequently than the overall sample, 54.17 for suburban versus 54.25 for the overall sample. Airport, interstate, and resort hotels discounted a bit more than the 54.25 percent of the full sample. For these four years, 55.40 percent of airport hotels discounted relative to their competitors, compared with 56.09 percent of interstate hotels, and 56.15 percent of resort hotels.

Exhibit 8 (next page) shows the percentage of hotels in each pricing-strategy category by location for 2001 through 2004. The percentage of hotels that discounted in the urban and interstate locations was smaller in 2004 than it was in 2003. The percentage of hotels that discounted at resort locations was slightly higher in 2004 than in 2003. The percentage of hotels that discounted remained mostly constant between 2003 and 2004 for the suburban, airport, and small metro or town locations. Again, as in the overall sample, the differences in pricing strategies appear not to change much in recessionary periods compared to prosperous periods.

The results by location are consistent with the pattern of the overall sample and those found in the price-segment analyses. For the 2001 through 2004 period, Exhibit 9 shows the average percentage difference in occupancy

Ехнівіт 8
Percentage of hotels in each price category by year and location

| Percentage Price Difference from Competitive Set | Percentage in each Group |  |  |  | Percentage Price Difference from Competitive Set | Percentage in each Group |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 2001 | 2002 | 2003 | 2004 |  | 2001 | 2002 | 2003 | 2004 |
| Urban |  |  |  |  | Interstate |  |  |  |  |
| 10-15\% Lower | 10.06\% | 11.01\% | 9.86\% | 10.53\% | 10-15\% Lower | 12.03\% | 12.48\% | 13.13\% | 12.46\% |
| 5-10\% Lower | 17.49\% | 17.03\% | 19.29\% | 18.92\% | 5-10\% Lower | 22.46\% | 21.61\% | 22.12\% | 19.23\% |
| 2 -5\% Lower | 14.51\% | 16.00\% | 15.54\% | 14.01\% | 2-5\% Lower | 12.78\% | 11.64\% | 13.13\% | 14.01\% |
| 0-2\% Lower | 9.60\% | 11.35\% | 10.08\% | 8.59\% | 0-2\% Lower | 9.43\% | 10.08\% | 7.98\% | 9.76\% |
| 0-2\% Higher | 10.86\% | 9.19\% | 10.61\% | 11.25\% | 0-2\% Higher | 7.57\% | 8.40\% | 9.29\% | 8.99\% |
| 2 - 5\% Higher | 14.97\% | 12.83\% | 13.40\% | 13.60\% | 2 - 5\% Higher | 11.66\% | 12.00\% | 12.22\% | 11.98\% |
| 5-10\% Higher | 15.31\% | 15.10\% | 14.15\% | 16.26\% | 5-10\% Higher | 15.01\% | 14.77\% | 14.85\% | 14.40\% |
| 10-15\% Higher Overall | 7.20\% | 7.49\% | 7.07\% | 6.85\% | 10-15\% Higher Overall | 9.06\% | 9.00\% | 7.27\% | 9.18\% |
| 0-15 \% Lower | 51.66\% | 55.39\% | 54.77\% | 52.04\% | 0-15 \% Lower | 56.70\% | 55.82\% | 56.36\% | 55.46\% |
| 0-15\% Higher | 48.34\% | 44.61\% | 45.23\% | 47.96\% | 0-15\% Higher | 43.30\% | 44.18\% | 43.64\% | 44.54\% |
| Suburban |  |  |  |  | Resort |  |  |  |  |
| 10-15\% Lower | 10.65\% | 10.93\% | 12.34\% | 11.66\% | 10-15\% Lower | 10.89\% | 12.73\% | 13.30\% | 11.63\% |
| 5-10\% Lower | 19.08\% | 17.69\% | 17.76\% | 18.72\% | 5-10\% Lower | 21.35\% | 20.46\% | 17.60\% | 18.60\% |
| 2-5\% Lower | 14.03\% | 15.33\% | 13.78\% | 13.62\% | 2-5\% Lower | 13.94\% | 15.03\% | 13.09\% | 15.50\% |
| 0-2\% Lower | 11.14\% | 9.56\% | 10.28\% | 10.08\% | 0-2\% Lower | 10.24\% | 9.81\% | 10.52\% | 9.88\% |
| 0-2\% Higher | 10.17\% | 10.18\% | 10.09\% | 9.36\% | 0-2\% Higher | 9.80\% | 8.14\% | 10.94\% | 10.27\% |
| 2 - 5\% Higher | 12.19\% | 13.22\% | 12.18\% | 13.13\% | 2-5\% Higher | 9.59\% | 10.65\% | 10.94\% | 10.08\% |
| 5-10\% Higher | 15.36\% | 15.78\% | 16.26\% | 15.55\% | 5-10\% Higher | 15.90\% | 12.94\% | 13.95\% | 14.53\% |
| 10-15\% Higher Overall | 7.38\% | 7.31\% | 7.31\% | 7.87\% | 10-15\% Higher Overall | 8.28\% | 10.23\% | 9.66\% | 9.50\% |
| 0-15 \% Lower | 54.91\% | 53.52\% | 54.16\% | 54.09\% | 0-15 \% Lower | 56.43\% | 58.04\% | 54.51\% | 55.62\% |
| 0-15\% Higher | 45.09\% | 46.48\% | 45.84\% | 45.91\% | 0-15\% Higher | 43.57\% | 41.96\% | 45.49\% | 44.38\% |
| Airport |  |  |  |  | Small Metro or | Town |  |  |  |
| 10-15\% Lower | 11.55\% | 12.03\% | 14.93\% | 15.40\% | 10-15\% Lower | 13.61\% | 10.08\% | 11.91\% | 12.83\% |
| 5-10\% Lower | 18.75\% | 18.34\% | 22.40\% | 16.40\% | 5-10\% Lower | 17.67\% | 17.67\% | 16.82\% | 17.47\% |
| 2 -5\% Lower | 13.83\% | 14.79\% | 9.43\% | 15.20\% | 2-5\% Lower | 13.28\% | 14.76\% | 13.73\% | 12.24\% |
| 0-2\% Lower | 9.66\% | 11.05\% | 9.23\% | 8.60\% | 0-2\% Lower | 10.10\% | 9.88\% | 10.18\% | 9.96\% |
| 0-2\% Higher | 8.90\% | 8.28\% | 8.45\% | 7.80\% | 0-2\% Higher | 10.43\% | 9.25\% | 9.73\% | 9.62\% |
| 2 - 5\% Higher | 11.93\% | 13.21\% | 14.34\% | 13.60\% | 2 - 5\% Higher | 10.54\% | 12.37\% | 12.45\% | 12.49\% |
| 5-10\% Higher | 16.29\% | 13.81\% | 16.11\% | 16.40\% | 5-10\% Higher | 14.71\% | 16.63\% | 15.18\% | 15.95\% |
| 10-15\% Higher Overall | 9.09\% | 8.48\% | 5.11\% | 6.60\% | 10-15\% Higher Overall | 9.66\% | 9.36\% | 10.00\% | 9.45\% |
| 0-15 \% Lower | 53.79\% | 56.21\% | 55.99\% | 55.60\% | 0-15 \% Lower | 54.67\% | 52.39\% | 52.64\% | 52.49\% |
| 0-15\% Higher | 46.21\% | 43.79\% | 44.01\% | 44.40\% | 0-15\% Higher | 45.33\% | 47.61\% | 47.36\% | 47.51\% |


by location, and Exhibit 10 (next page) shows the average percentage difference in RevPAR by location. The results found for the overall sample carried through to each location. In addition, the results (not shown) for each location across years are similar. The largest percentage variance in occupancy for interstate hotels was found in hotels that priced between 5 - and 15 -percent below their competitors. Consistent with this result, this group lost the least in terms of the percentage difference in RevPAR. Airport hotels recorded the least relative occupancy premium when they discounted up to 5 percent compared to their competitive set, and their percentage loss in RevPAR was the highest. In the group that priced no more
than 2 percent higher, resort locations gained the most occupancy relative to their competitors and also achieved the highest percentage gain in RevPAR. Airport, interstate, and small metro or town hotels lost occupancy relative to their competitors when they charged room rates up to 2 percent higher, while hotels in the other locations achieved higher relative occupancies. However, the subject hotel in each location achieved higher RevPAR performance than its competitors as long as it set its rates above those of its competitors.

Although the percentage difference in occupancy was negative for each of the locations for pricing premiums of at least 2 percent, the percentage difference in RevPAR was positive.

Mean RevPAR differences by location, 2001-2004


For the highest relative-pricing group, that is, those charging 10 - to 15 -percent above their competitors, airport locations lost the least in occupancy and as a result gained the most in RevPAR. Similar to the results for the overall sample, urban, suburban, and resort locations recorded lower occupancy than did their competitors when their rates were at least 2 -percent greater than those of their competitors. Unlike the overall sample, airport, interstate, and small metro or town locations lost occupancy relative to their competitors even for slight pricing pre-miums-up to 2 -percent higher. Hotels in the airport locations achieved lower RevPAR than their competitors when they priced up to 2 percent below their competitors. This observation is unlike what we found in each of the other locations and in the overall sample, in which lower RevPAR was achieved when the properties discounted at least by 2 percent.

## Top 20 Metropolitan Areas versus Small Markets

While the pricing and revenue patterns revealed in recessionary and recovery years appear to be similar, we investigated pricing by market size to see whether the results hold for both primary and secondary markets. To investigate this question we formed a group of the top 20 markets by population and placed all other markets in the secondary group. The results hold here as well. The percentage of hotels that discount in each of the two groups is similar and does not change over time (results not shown). Exhibit 11 shows the average percentage difference in occupancy and the average percentage difference in RevPAR by pricing strategy across the four-year period for each of the two groups. As in the overall sample, the percentage difference in occupancy is the highest for the pricing-strat-
egy group with the highest discount ( 10 to 15 percent), and the occupancy difference is the lowest for the pricing-strategy group with the highest premium above the competition (also 10 to 15 percent). These hotels begin to lose occupancy relative to their competitors when they priced at 2 - to 5 -percent above their competitors. Also similar to the overall sample, they begin to lose relative RevPAR when they discounted by 2 percent or more.

The results show that the percentage difference in occupancy is greater in small markets than for the major markets for each of the discounting pricing strategies. The occupancy difference is also greater for markets where the ADR is at most 2 percent greater than that of competitors. While the reverse is true when hotels price at least 2 percent more than their competitors, the percentage loss in occupancy is greater for the small markets than for the top 20 metropolitan statistical areas. The similarities between the two groups is striking, especially for those hotels that price up to 10 percent higher than their competitors do.

## Conclusion

Many hoteliers contend that discounting room rates is a necessity during tough economic times-and also a strategy to "steal market share" in good times. What we found is that discounting does, in fact, help fill rooms, but that comes at a cost to revenues. Our study from 2001 through 2004 covered both a period in which RevPAR was falling (i.e., 20012002), and when it was rising (i.e., 2003-2004). In both time periods, we found that hotels in direct competition make more money when they have comparatively higher prices and do not undercut competitors by discounting rates to fill rooms. The data show that those hotels which dropped their relative prices did capture market share from the competition, but they did not gain higher RevPAR. On the other hand, hotels that held fast to their price position, especially when it was higher than that of their competitors generally recorded higher RevPARs than competitors, even though oc-

Ехнівіт 11
Percentage of hotels in each pricing category by year and size of metropolitan statistical area, 2001-2004

| Percentage Price Difference from Competitive Set | Percentage in each Group |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | 2001 | 2002 | 2003 | 2004 |
| Top 20 MSAs |  |  |  |  |
| 10-15\% Lower | 10.85\% | 11.31\% | 11.45\% | 11.57\% |
| 5-10\% Lower | 19.70\% | 17.09\% | 18.92\% | 17.93\% |
| 2-5\% Lower | 13.61\% | 16.26\% | 14.00\% | 15.26\% |
| 0-2\% Lower | 9.79\% | 10.55\% | 9.83\% | 8.96\% |
| 0-2\% Higher | 10.29\% | 9.66\% | 10.83\% | 11.45\% |
| 2 - 5\% Higher | 13.05\% | 13.34\% | 13.44\% | 13.81\% |
| 5-10\% Higher | 15.18\% | 14.36\% | 14.44\% | 14.42\% |
| 10-15\% Higher | 7.53\% | 7.43\% | 7.09\% | 6.60\% |
| Overall |  |  |  |  |
| 0-15\% Lower | 53.95\% | 55.21\% | 54.20\% | 53.73\% |
| 0-15\% Higher | 46.05\% | 44.79\% | 45.80\% | 46.27\% |
| Secondary MSAs |  |  |  |  |
| 10-15\% Lower | 11.44\% | 11.04\% | 12.49\% | 12.26\% |
| 5-10\% Lower | 18.83\% | 18.56\% | 18.81\% | 18.61\% |
| 2-5\% Lower | 13.87\% | 14.28\% | 13.45\% | 13.09\% |
| 0-2\% Lower | 10.62\% | 9.90\% | 9.80\% | 9.92\% |
| 0-2\% Higher | 9.69\% | 9.43\% | 9.54\% | 8.89\% |
| 2 - 5\% Higher | 11.96\% | 12.70\% | 12.29\% | 12.68\% |
| 5-10\% Higher | 15.33\% | 15.91\% | 15.92\% | 15.98\% |
| 10-15\% Higher | 8.28\% | 8.18\% | 7.70\% | 8.57\% |
| Overall |  |  |  |  |
| 0-15 \% Lower | 54.75\% | 53.78\% | 54.55\% | 53.88\% |
| 0-15\% Higher | 45.25\% | 46.22\% | 45.45\% | 46.12\% |

cupancy averaged lower. These results carry through when we analyzed individual market segments, specific location types, and primary and secondary markets.

In addition, we found that the percentage of hotels in each discounting category remained relatively constant even in 2004, the year in which the lodging industry achieved the largest percentage increase in RevPAR over the previous ten years. This implies that lodging managers set their prices relative to their competitive set rather than by pricing relative to demand conditions. That is, they do not seem to change their pricing strategy relative to the others in their competitive set. The exceptions to this observation were the luxury and
the independent segments. The percentage of hotels in these two segments that discounted relative to their competitive sets decreased in 2004 in comparison to 2001.

Hotels can steal market share by discount-ing-but at a price. For the overall sample, we found that hotels that discounted the most achieved the highest relative occupancy gain, but by doing so they recorded the smallest relative RevPAR. In contrast, those that priced the most above the competitive set lost the most in occupancy and gained the most in RevPAR. Interestingly, hotels that priced within 2 percent below or above their competitors achieved both greater occupancy and RevPAR. Slight

## Hotels that kept their prices higher than those of their competitive set enjoyed relatively higher revenue.

reductions in ADR apparently increase occupancy enough to achieve higher RevPAR than competitors. Slight increases in ADR achieve both higher occupancy and RevPAR.

We found differences in the relative magnitude of the gains and losses in both occupancy and RevPAR in different market segments. Economy hotels that discounted gained the most in occupancy, while the economy hotels that charged a premium lost the most in occupancy. The effects on RevPAR, though, were worth noting. Economy hotels that discounted lost the least in relative RevPAR, and those that priced higher than their competitive set gained the least in RevPAR. We suspect that this could be the result of segment substitution, although we had no way to test this notion with these data. Segment substitution would occur when guests trade down to the discounting economy
properties. These properties gain occupancy, but their relatively low ADRs result in low relative RevPAR. However, the relative RevPAR for those properties is not as low as would occur in the other segments, because of the large relative increase in occupancy as guests trade up from the economy properties that are charging more than their competitors.

For the overall sample, we found that on average hotels that charge at least 2 percent more than their competitors have lower occupancy, while those discount by no more than 2 percent and those that charge a premium relative to their competitors have higher RevPAR. However, economy and independent hotels have lower occupancy than their competitors even when they discount by 2 percent; luxury and midscale with food and beverage have lower occupancy when they charge a slight premium of up to 2 percent; and upper-upscale, upscale, and midscale without food and beverage do not lose occupancy relative to their competitors until they achieve at least 5-percent higher ADRs. The overall results regarding RevPAR hold for the luxury, upper upscale, upscale, and midscale without food and beverage segments. Midscale with food and beverage, economy, and independent hotels achieve higher RevPAR when they charge a relative premium of at least 2 percent. Unlike the overall sample, airport, interstate highway, and small metro or town locations have lower occupancy than do their competitors when they charge even a slight premium above those competitors. Also different, airport hotels constitute the only location that recorded lower RevPARs than their competitors when they charged a slight relative discount-up to 2 percent. When the data were analyzed by market size, the results for the top 20 MSAs and smaller metropolitan areas were extremely similar to one another and to the re-


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[^0]:    ARAMARK•DK Shifflet \& Associates•ehotelier.com•Estrela Marketing Solutions•Fireman's Fund Insurance • Gerencia de Hoteles \& Restaurantes •Global Hospitality Resources • Hospitality Confections LLC - Hospitality Financial and Technological Professionals•hospitalitynet.org - Hotel Asia Pacific• Hotel China•HotelExecutive.com•Hotel Interactive • Hotel Resource •International CHRIE - International Hotel and Restaurant Association •International Hotel Conference•KPMG Japan/GIobal Management Directions•Lodging Hospitality•Lodging Magazine• PKF Hospitality Research •Resort+Recreation•RestaurantEdge.com•Shibata Publishing Co.• Taste \& Travel•The Lodging Conference•TraveICLICK•UniFocus•WageWatch, Inc. • WiredHotelier.com

[^1]:    ${ }_{2}^{1}$ The Host Study, Smith Travel Research, 2005, p. 3.
    ${ }^{2}$ C.A. Enz, L. Canina, and M. Lomanno, "Why Discounting Doesn't Work: The Dynamics of Rising Occupancy and Falling Revenue Among Competitors," CHR Reports, Vol. 4, No. 7 (August 2004), www.chr.cornell.edu.

[^2]:    ${ }^{3}$ Please note the STR database also includes many independent properties.

[^3]:    ${ }^{4}$ The percentage difference in occupancy and RevPAR by market segment and by year was also analyzed. The results for each segment are similar across each of the four years. For a detailed discussion of these results for each of the years over the 2001-2003 period, see: Enz, Canina, and Lomanno, op.cit.

