SHA534: Overbooking Practices in Hotel Revenue Management

This course includes

• Four self-check quizzes
• Two discussions
• Two tools to download and use on the job
• Three Ask the Expert interactives
• One activity
• Two action plans to apply what you learn
• One video transcript file

Completing all of the coursework should take about five to seven hours.

What you’ll learn

• Develop an overbooking approach that addresses no-shows
• Manage potential customer issues associated with overbooking
• Make group-management decisions that maximize revenue

Course Description

Businesses that accept reservations must cope with the problem of no-shows, or customers who make a reservation but fail to honor it. Hotels can protect themselves against revenue loss from no-shows by overbooking. This course, produced in partnership with the Cornell School of Hotel Administration, teaches you how to strategically overbook and how to evaluate groups in order to determine which rates to charge. You will examine the components of a successful overbooking strategy: no-show forecasting, no-show rates, arrival uncertainty, pricing policies, and cancellation forecasts. You will consider the risks of
overbooking and review strategies to minimize costs and mitigate customer impact.

You'll also see how to create a group forecast and explore yieldable and non-yieldable business and incremental group costs and revenue opportunities. Finally, you will employ models to calculate displacement costs and contribution margins to determine which customer groups will return the most profit.

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**Sheryl Kimes**  
Professor of Operations Management,  
School of Hotel Administration, Cornell University  

Sheryl E. Kimes is a professor of operations management at the School of Hotel Administration. From 2005–2006 she served as interim dean of the school and from 2001-2005 she served as the school’s director of graduate studies. Kimes teaches restaurant revenue management, yield management, and food and beverage management. She has been named the school’s graduate teacher of the year three times. Her research interests include revenue management and forecasting in the restaurant, hotel, and golf industries. She has published over 50 articles in leading journals such as Interfaces, Journal of Operations Management, Journal of Service Research, Decision Sciences, and the Cornell Hospitality Quarterly. She has served as a consultant to many hospitality enterprises around the world, including Chevys FreshMex Restaurants, Walt Disney World Resorts, Ruby’s Diner, Starwood Asia Pacific, and Troon Golf. Kimes earned her doctorate in Operations Management in 1987 from the University of Texas at Austin.
Course Modules

Module 1: Introduction to No-Shows

1. Module Introduction: Introduction to No-Shows
2. Watch: The Problem of No-Shows
3. Watch: Managing No-Shows
4. Read: The No-Show Problem in Context
5. Ask the Expert: Dave Roberts on Benefits and Costs of Overbooking
7. Module Wrap-up: Introduction to No-Shows

Module 2: No-Show Data and the Overbooking Decision

1. Module Two Introduction: No-Show Data and the Overbooking Decision
2. Watch: How Many No-Shows?
3. Watch: The Chances of a No-Show
4. Read: It’s Probable
5. Ask the Expert: Vivek Bhogaraju on Leveraging Data
6. Forecast the No-Shows
7. Let’s Talk about No-Shows
8. Reflect on No-Show Data and Overbooking for Your Action Plan
9. Module Two Wrap-up: No-Show Data and the Overbooking Decision

Module 3: The Pros and Cons of Overbooking

1. Module Three Introduction: Pros and Cons of Overbooking
2. Watch: The Cost of Overbooking
3. Watch: When Overbooking Leads to Overselling
4. Watch: The Cost of Not Overbooking
5. Ask the Expert: Marco Benvenuti on Approaches to Overbooking
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Module 4: The Overbooking Ratio Method

1. Module Four Introduction: The Overbooking Ratio Method
2. Watch: Components of an Overbooking Policy
3. Watch: Overbooking Ratio Method
4. Watch: Using Excel for Overbooking
5. Tool: Overbooking Ratio Step by Step
6. Follow the Policy
7. Complete and Submit Action Plan for Overbooking Practices
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Module 5: Group Management Decisions

1. Module Five Introduction: Group Management Decisions
2. Watch: Groups and Group Decisions
3. Watch: Group Blocks
4. Read: Group Value
5. Decide by Team
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Module 6: Calculating Group Rates

1. Module Six Introduction: Calculating Group Rates
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3. Watch: The Simple Displacement Model
4. Watch: How Does Group Size Influence Rate?
5. Watch: Using Excel for Simple Displacement
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Module 7: Group Forecasting

1. Module Seven Introduction: Group Forecasting
2. Watch: The Importance of Group Forecasting
3. Read: Group Forecasting Methods
4. Forecast the Groups
5. Talk about Groups

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6. Module Seven Wrap-up: Group Forecasting
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8. Watch: Thank You and Farewell
Module 1: Introduction to No-Shows

1. Module Introduction: Introduction to No-Shows
2. Watch: The Problem of No-Shows
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Introduction to No-Shows

Sometimes a reservation is made, but for some reason, the customer does not show up. No matter how expertly you manage your hotel's resources and revenue, you cannot change the fact that no-shows occur. Unless these no-shows are managed effectively, they will result in empty rooms and lost revenue.

In this module, you will take a careful look at the problem of no-shows.

When you have completed this module, you will be able to discuss arrival uncertainty, state several causes for no-shows, and explain how the no-show problem is important to hotel revenue management.
Watch: The Problem of No-Shows

The Problem of No-Shows

No-shows present a very real problem for your business, and no-shows, just like any other variable in your revenue stream, must be managed. Watch this video to learn about the problem of no-shows.
Managing No-Shows

Hotels practicing revenue management need to implement strategies to reduce arrival uncertainty. That is, they need to know whether those consumers who have made reservations will actually arrive. Inevitably, some will be no-shows. In this video, Professor Kimes presents internal and external approaches to managing no-shows. Note that the following page includes a downloadable tool that summarizes the approaches discussed in this video.
The average annual cost of no-shows in the U.S. hotel industry is about 50 to 100 million dollars. Clearly, this is a significant issue for hotel managers—and significant to the practice of hotel revenue management. Hotel managers have found they can reduce no-shows by several methods, some that involve the customer (external) and some that don't involve the customer (internal).

In an article in the *Cornell Hotel and Restaurant Quarterly* (2002), Rex Toh and Frederick DeKay note that hotels requiring guests to guarantee their reservations by credit card (an external method) reduced their no-show rates from between 10 to 15% to about 4%. All six room managers interviewed in that article volunteered the observation that since hotels started to accept only reservations guaranteed by credit cards, the no-show rate had plummeted. Toh and DeKay note that this complements the fact that penalties on early
departures have had a similar effect on the rate of unexpected departures.

However, no-shows and early departures still cost hotels money. The credit-card guarantee compensates the hotels for one night’s stay in the case of a no-show, but the hotel still needs to make up for a revenue loss if that no-show guest had a multiple-night reservation.

And even at a low rate of 1 to 2%, the cost of no-shows is high. For this reason, hotels look to internal methods for addressing no-shows.

The table shown here is taken from Toh and DeKay (2002). The simulated booking data are designed to be typical of a large, metropolitan convention hotel with a standard capacity of 800 rooms. For this selection of forty fully booked days, there are nine instances in which the hotel ended up with at least one empty room. The average number of no-shows is 14.58.


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Ask the Expert: Dave Roberts on Benefits and Costs of Overbooking

Dave Roberts on Benefits and Costs of Overbooking

Dave Roberts, Senior Vice President for Marriott International, believes many hotels are too conservative when it comes to overbooking, but they also need to consider the costs associated with overbooking.
Get Started on Action Plan for Overbooking

Hotels and certain other businesses can minimize revenue loss arising from no-shows by implementing overbooking practices. In the first part of this course, you are learning how to overbook and how to manage issues associated with overbooking.

You will create two action plans for this course. In this first action plan, you will focus on overbooking and how you might apply it to your own situation.

If you are not currently associated with a hotel or business, base your action plan on a hotel or business with which you are familiar.

Instructions:

Download the Action Plan for Overbooking Practices Action Plan. Review the plan document so you are familiar with its structure. In the Key Business Problem(s) section, write an initial draft of a business problem or opportunity you would like to address, relating to no-shows and overbooking. You can modify this later as you develop your plan. In the Notes section, make notes of concepts or recommendations contained in Module 1 that you think may be useful to consider when you work further on your action plan. For each item that you include, indicate why you think it may be relevant to your situation. Save your work at a convenient location on your computer or storage area. The action plans in this course are required assignments, but do not submit this initial work at this time.

Before you begin:

While you won't submit the document now, please review the rubric (list of evaluative criteria) that will be used when you submit the document with notes and completed plan at the end of the course. Also, review eCornell's policy regarding plagiarism (the presentation of someone else's work as your own without source credit).
Module Wrap-up: Introduction to No-Shows

Introduction to No-Shows

In this module, you took a careful look at the problem of no-shows. You are now able to discuss arrival uncertainty, state several causes for no-shows, and explain how the no-show problem is important to hotel revenue management.
Module 2: No-Show Data and the Overbooking Decision

1. Module Two Introduction: No-Show Data and the Overbooking Decision
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3. Watch: The Chances of a No-Show
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Module Two Introduction: No-Show Data and the Overbooking Decision

No-Show Data and the Overbooking Decision

Forecasting no-shows is a lot like gambling. You may have an intuition or a well-informed guess, but you can't know for sure how many customers who reserved rooms on a particular night will fail to show up. A hotel manager may be willing to bet on a forecast, but the actual number of no-shows is ultimately governed by chance.

In this module, you will take a careful look at no-show data and what we can learn from it.

When you have completed this module, you will be able to find the probability of one or more no-shows using no-show data. In addition, you will be able to explain one method for forecasting no-shows.

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Watch: How Many No-Shows?

How Many No-Shows?

The number of no-shows at a particular hotel may go up and down from week to week, or it may not change much at all. The number of no-shows may change predictably from month to month, or it may seem to be random. In this video, Professor Kimes explains the importance of keeping and analyzing no-show data. With this data, managers can estimate future no-show rates and, subsequently, increase revenue.
Watch: The Chances of a No-Show

The Chances of a No-Show

Once you've collected no-show data and analyzed it, will you be able to say exactly how many no-shows you'll have each day? No. Even with very good data and even better analysis, you won't know for sure. In this video, Professor Kimes explains the probability of a no-show, or of two or more no-shows, and how you can use probability to make good decisions based on data you collect. Note that an example of this kind of data collection appears on the next page.
Ask the Expert: Vivek Bhogaraju on Leveraging Data

Vivek Bhogaraju on Leveraging Data

In this video, we hear from Vivek Bhogaraju, Director of Global Strategic Alliances from IDeaS – A SAS Company. As he points out, there is a large amount and variety of external data available today, including macroeconomic data and consumer data. How do we leverage it? What kinds of data should you use? Bhogaraju provides guidelines for approaching these questions.

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Forecast the No-Shows

In this required quiz, you must create a no-show forecast for next Friday.

You must achieve a score of 100% on this quiz to complete the course. You may take it as many times as needed to achieve that score.

Points: 3.0

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Let's Talk about No-Shows

Instructions:
You are required to participate meaningfully in at least two discussions in this course.

Discussion topic:
Is it surprising that a hotel should have a problem with no-shows? What advice or relevant information would you share with a hotel struggling with arrival uncertainty, based on your own experience and the knowledge you've gained here?

In this discussion of no-shows, share your views on the challenges posed by arrival uncertainty. Discuss factors that produce no-shows, and examine ways in which the no-show problem is pertinent to hotel revenue management. Share some of the experiences you and your colleagues have had, and learn from the experiences of others.

To participate in this discussion:
Click Reply to post a comment or reply to another comment. Please consider that this is a professional forum; courtesy and professional language and tone are expected. Before posting, please review eCornell's policy regarding plagiarism (the presentation of someone else's work as your own without source credit).

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Reflect on No-Show Data and Overbooking for Your Action Plan

In the previous module, you began work on an action plan relating to overbooking, for submission later in the course. You will now perform further work on that plan.

Instructions:

Open the action plan and review the work you did in the previous module. In the section labelled Notes, make notes of concepts or recommendations contained in Module 2 that you think may be useful to consider when you work further on your action plan. For each item that you include, indicate why you think it may be relevant to your situation.

Save your work. This action plan is a course requirement, but do not submit it at this time.

Before you begin:

While you won't submit the document now, please review the rubric (list of evaluative criteria) that will be used when you submit the document with notes and completed plan at the end of the course. Also, review eCornell's policy regarding plagiarism (the presentation of someone else's work as your own without source credit).

Grading Type: Not Graded
Module Two Wrap-up: No-Show Data and the Overbooking Decision

No-Show Data and the Overbooking Decision

In this module, you saw how no-show data is used in making decisions about overbooking. You are now able to use no-show data to find the probability of one or more no-shows. In addition, you are able to explain one method for forecasting no-shows.
Module 3: The Pros and Cons of Overbooking

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3. Watch: When Overbooking Leads to Overselling
4. Watch: The Cost of Not Overbooking
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Module Three Introduction: Pros and Cons of Overbooking

Pros and Cons of Overbooking

Overbooking is a practice implemented by hotels, airlines, and other businesses in an attempt to reduce the amount of revenue lost through no-shows. Because no-show rates are probable, not certain, the practice of overbooking involves risk. Overbooking too little results in lost revenue, but overbooking too much results in being oversold.

In this module, we take a closer look at overbooking by considering both costs and benefits associated with this practice.

When you have completed this module, you will be able to list costs associated with overbooking and with choosing not to overbook. You will be able to explain some key considerations involved in "walking" guests.

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Watch: The Cost of Overbooking

The Cost of Overbooking

When a hotel overbooks by too much, the result is that one or more customers will not be given a room. That is, the hotel will "walk" these customers. It's relatively easy to estimate the cost of leaving a room empty, but it's more complicated to estimate the long-term cost of walking. In this video, Professor Kimes presents various costs associated with overbooking and sets the context for considering an overbooking policy.
Watch: When Overbooking Leads to Overselling

When Overbooking Leads to Overselling

Sometimes overbooking leads to overselling, a situation in which one or more guests is "walked." Revenue managers need to be prepared for this outcome. Watch this video to learn about the importance of making walks voluntary, about the manager's role in the walk, and about who should walk.

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Watch: The Cost of Not Overbooking

The Cost of Not Overbooking

In general, people don't want to be walked as a result of an oversold situation. And, in general, hotel managers and staff would like to avoid walking their guests. This desire to avoid being oversold may compel some not to overbook at all. Doesn't that solve the problem? In this video, Professor Kimes discusses the costs associated with not overbooking.
Marco Benvenuti on Approaches to Overbooking

Marco Benvenuti is Chief Analytics Product Officer and Co-founder at Duetto. In these videos, he discusses some of the challenges of overbooking. In the first video, he stresses the importance of preparing for oversold situations. The second video deals with two methods for determining an overbooking policy: an economic method and a service-level approach. In the final video, he urges hotels to analyze no-show rates carefully to find differences such as variations by market segment.

Question

From time to time, hotels will be oversold. What sorts of things should managers do to prepare for these sorts of situations?

Question

How should a hotel determine its overbooking level?

Question

Do no-show rates vary by market segment? How should a hotel take this into account?

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Reflect on Pros and Cons for Your Action Plan

In the previous modules, you began work on an action plan related to overbooking, for submission later in the course. You will now perform further work on that plan.

Instructions:

Open the action plan and review your previous work.
In the section labelled Notes, make notes of concepts or recommendations contained in Module 3 that you think may be useful to consider when you work further on your action plan. For each item that you include, indicate why you think it may be relevant to your situation.

Save your work. This action plan is a course requirement, but do not submit it at this time.

Before you begin:

While you won't submit the document now, please review the rubric (list of evaluative criteria) that will be used when you submit the document with notes and completed plan at the end of the course. Also, review eCornell's policy regarding plagiarism (the presentation of someone else's work as your own without source credit).

Grading Type: Not Graded
Module Three Wrap-up: The Pros and Cons of Overbooking

The Pros and Cons of Overbooking

In this module, you considered the relative costs and benefits of overbooking. You are now able to list costs associated with overbooking and with choosing not to overbook. You are able to explain some key considerations involved in "walking" guests.

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Module 4: The Overbooking Ratio Method

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4. Watch: Using Excel for Overbooking
5. Tool: Overbooking Ratio Step by Step
6. Follow the Policy
7. Complete and Submit Action Plan for Overbooking Practices
8. Module Four Wrap-up: The Overbooking Ratio Method
The essence of hotel revenue management is selling the right room to the right customer at the right price and at the right time. To be successful, revenue managers need a few key tools: a pricing strategy, an information system, forecasts, and an overbooking policy. This module provides a key tool you can add to your revenue management toolbox. You will see how to calculate an overbooking ratio and use it to develop a simple overbooking policy that's right for your hotel.

When you have completed this module, you will be able to use the overbooking ratio method to manage arrival uncertainty.
Watch: Components of an Overbooking Policy

Components of an Overbooking Policy

What do pies and newspapers have to do with overbooking? Professor Kimes provides analogies involving a news stand and a bakery to help you see the overbooking decision in a new way. In addition, she states three important components of an overbooking policy, each of which we'll consider carefully when we create a policy. Watch this video to get started.
Watch: Overbooking Ratio Method

Overbooking Ratio Method

This video presents the ratio method for formulating an overbooking policy. The overbooking ratio method uses many of the concepts we've discussed so far in the course, including the cost of overbooking, the cost of overselling, and the probability of a no-show. Watch as Professor Kimes calculates the overbooking ratio and uses it to find the optimal overbooking level. (On the following pages, you will be able to download a spreadsheet and a set of instructions relating to these calculations.)

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Watch: Using Excel for Overbooking

Using Excel for Overbooking

Now that you know how the overbooking ratio is calculated, you can appreciate why it might be favorable to use a spreadsheet for this task. A spreadsheet makes the calculation easier and more accurate, and it also makes it easier for you to modify inputs and make revised calculations as needed. Watch this video to find out more, and then download the spreadsheet discussed in the video and experiment with it.
Tool: Overbooking Ratio Step by Step

Overbooking Ratio Step by Step

These step-by-step instructions show you how to:

1. Calculate the overbooking ratio
2. Use the overbooking ratio to create an overbooking policy

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Follow the Policy

Grading Type: Points
Submitting: External Tool

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Complete and Submit Action Plan for Overbooking Practices

You have been looking at how to overbook and how to manage issues associated with overbooking practices.

In your action plan, you have been making notes relating to how these concepts and strategies may be relevant in your own situation, or in a hotel or business with which you are familiar.

It's now time to complete this action plan. For the remaining modules, you will be drafting a separate action plan relating to group management.

Instructions:

Open your overbooking practices action plan document. Referring to the notes you took, complete all sections of the plan. Save your work. Submit the action plan for instructor review by uploading it below. This assignment is required for course completion.

Before you begin:

Please review the rubric (list of evaluative criteria) for this assignment and eCornell's policy regarding plagiarism (the presentation of someone else's work as your own without source credit).

Grading Type: Pass/Fail

Points: 20.0

Submitting: Online Upload
Module Four Wrap-up: The Overbooking Ratio Method

The Overbooking Ratio Method

This module provided a key tool you can add to your revenue management toolbox: an overbooking method. You learned how to calculate an overbooking ratio and then use it to develop a simple overbooking policy that’s right for your hotel. You are now able to use the overbooking ratio method to manage arrival uncertainty.
Module 5: Group Management Decisions

1. Module Five Introduction: Group Management Decisions
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Module Five Introduction: Group Management Decisions

Group Management Decisions

Group business presents an important opportunity for your hotel. However, individual groups can be difficult to evaluate, and group-rate decisions can be complicated. In fact, with locked-in, discounted rates set far in advance of arrival dates, group and other nonyieldable business may seem a poor fit with the revenue management strategies in use at your hotel.

In this module, you will take a close look at group business as a nonyieldable business type. You will find out what the major group-business decisions are and when you might make them.

When you have completed this module, you will be able to define nonyieldable business. Additionally, you will have a basic understanding of long-term, medium-term, and short-term group decisions and also be able to consider the groups in the management of revenue.

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Groups and Group Decisions

Nonyieldable business includes group business, tour operators, volume accounts (such as corporate accounts), and even airline crews. Because nonyieldable business is characterized by discounted rates negotiated far in advance of the arrival date, managers may find it challenging to evaluate as a revenue opportunity. In this video, Professor Kimes explains how revenue managers can handle the problem of groups.

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Watch: Group Blocks

Group Blocks

In this video, Professor Kimes looks closely at medium-term decisions in the group management process. She discusses how group block decisions are made—that is, how hotel managers decide how many rooms to reserve for a group for each day of its stay. Watch to learn more about how revenue managers approach these important questions.
Types of Nonyieldable Business

Groups
Volume
Tour operators
Airline crews

The two key strategies of revenue management (also called yield management) are to make price and availability variable according to demand. On the surface, group bookings don't appear to be good prospects for revenue managers. Group reservations are usually locked in at a discounted rate and are made so far in advance that demand for the rooms in question and demand-based rates for them are difficult to determine. Unlike transient-guest business, this type of business cannot be yielded—that is, the rates cannot be changed as demand changes.

Nonyieldable business includes groups, tour operators, volume accounts, and airline crews, and this type of business presents a particular kind of challenge for hotel managers. And yet, it's a challenge worth exploring. For one thing, nonyieldable business opportunities for hotels are a growing segment. Companies are sponsoring more group meetings at conference centers and hotels, with event reservations increasing by 43% in 2005 (according to PassKey, an online reservation-management provider).

In addition, group bookings provide value. Though group room rates are often lower than rates for transient bookings, individual group members may spend as much as 30% more on food and beverage and other amenities than the average transient guest. (Of course, in making their decisions about group business, hotel managers must determine the actual...
profit these revenues represent.)

So, while nonyieldable business presents specific challenges for revenue managers, it can provide excellent value, too.

Decide by Team

The Accra Beach Hotel is a 140-room hotel located on the Caribbean island of Barbados. This hotel enjoys a prime beach-front location on the south coast of the island. The West Indies Cricket Board (WICB) contacted its sales director to request a block of 50 rooms for dates in April, May, and June of next year. The Board has requested 50 rooms and two additional suites at no extra charge. In addition, it's requesting a discounted rate. The hotel is typically busy during these months, so the sales director is wondering if it's a good idea to accept this group booking.

Provide advice to the Accra Beach Hotel by selecting the best available answer to each of the following questions.

You must achieve a score of 100% on this quiz to complete the course. You may take it as many times as needed to achieve that score.

Points: 5.0

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Get Started on Action Plan for Group Management

You will now begin work on a second action plan, this one relating specifically to group management. You will draft most of this action plan at the end of the last module but will add notes to it as you move through the remainder of this course.

If you are not currently associated with a hotel or business, base your plan on a hotel or business with which you are familiar.

Instructions:

Download the Group Management Action Plan. Review the plan document so you are familiar with its structure. In the Key Business Problem(s) section, write an initial draft of a business problem or opportunity you would like to address, relating to group bookings or group-related business. You can modify this later, but make an initial attempt to describe a problem or opportunity that relates to groups.

In the section labelled Notes, make notes of concepts or recommendations contained in this module that you think may be useful to consider when you work further on this action plan. For each item that you include, indicate why you think it may be relevant to your situation. Save your work at a convenient location on your computer or storage area. This action plan is a course requirement, but do not submit it at this time.

Before you begin:

While you won't submit the document now, please review the rubric (list of evaluative criteria) that will be used when you submit the document with notes and completed plan at the end of the course. Also, review eCornell's policy regarding plagiarism (the presentation of someone else's work as your own without source credit).
Module Five Wrap-up: Group Management Decisions

Group Management Decisions

In this module, you took a close look at group business as a nonyieldable business type. You considered a number of major group-business decisions and when you might make them. You are now able to define nonyieldable business. You looked at issues relating to long-term, medium-term, and short-term group decisions and considered the significance of groups in the management of revenue.

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Module Six Introduction: Calculating Group Rates

Calculating Group Rates

Now that you’ve had a chance to consider group-business decisions and how they are made, let’s take a closer look at how rates are calculated. In this module, you will learn to calculate minimum group rates using the displacement method, a powerful tool for medium-term decision making. You will consider a simple example as well as one involving multiple contributions. For each example, you will see how Excel can be used to facilitate these calculations.

When you have completed this module, you will be able to explain the difference between revenue and contribution. You will be able to calculate a group rate with multiple contributions using the displacement model, both by hand and using Excel.

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Rate and Contribution

Transients and groups alike bring a variety of revenues to the hotel. These revenues are characterized by different profit margins that create different contributions, all of which are important in the calculation of minimum rate. Watch this video to learn more about revenue, contribution, and rate.
The Simple Displacement Model

Group business coming to your hotel may displace transient guests, many of whom will typically pay a higher rate per room-night. If you accept the reservation of a particular group, one question you need to answer is, what is the rate I should charge that group in order just to break even? This question is addressed by the displacement model. Watch this video to learn how to use this model to calculate the minimum rate.

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Watch: How Does Group Size Influence Rate?

How Does Group Size Influence Rate?

Now that we've started to look at group business as potentially displacing transient business sold at a different rate, we can begin to see why group size is a factor in rate calculation. In fact, it may not influence the rate in the way customers would expect! In this video, Professor Kimes takes us through an example to see just how group size influences the minimum rate.
Watch: Using Excel for Simple Displacement

Using Excel for Simple Displacement

The displacement model involves many different variables: profit margins, group blocks, room rates, numbers of days. For this reason, a spreadsheet can be helpful for performing and updating calculations. In this video, Professor Kimes steps us through a displacement example using Excel.

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So far we have considered displacement in the context of a very simple example. What if things were a little more complicated? The model works even when, for example, many different revenue sources are involved, each with a different profit margin. In this video, Professor Kimes takes us through an example that considers multiple contributions.
Watch: Using Excel with Multiple Contributions

Using Excel with Multiple Contributions

We have seen how Excel can be used to calculate displacement in a simple situation. Now let's see how Excel is used when the situation is more complicated. Watch as Professor Kimes uses Excel to calculate minimum rate when there are multiple contributions.
Tool: Displacement Template

Displacement Template

Download the Example to see what the template looks like

Explore this possibility using the Expanded Template

Download the Displacement Template for your own use

The Displacement Template is a spreadsheet tool developed by Professor Kimes for calculating the minimum group rate. Here are general instructions for using the template, a link to the template file, a step-by-step example of how the template is used to solve a simple minimum-rate problem (with a sample template file), and a link to the template solution for an extended minimum-rate problem.

Instructions for using the template

Enter values in the non-shaded fields of the Room Contribution Analysis, Other Contribution Analysis, and Displacement Analysis tables. The template will calculate values in the pale-shaded fields for you. If you wish to revise a value, just type over the current entry. Whenever you make changes, the template will update all fields automatically.

Let's see how the template is used with the following request. At each step of the way, the key information in the example is shown in bold. The corresponding entries in the template fields are also shown in blue.

An example

Data entry for this example is complete! See what the template looks like at this point by clicking the link for the Example above. Note that the pale-yellow fields in these tables now contain values supplied by the template. The total number of displaced rooms, the total group size, and contribution totals are all shown. What about the minimum rate? Fortunately, the template has already calculated this rate for you! Look at the last row of the Rate Calculation table to see the minimum rate of $141.67.

An extended example

Now try an example on your own. What if the group in the previous example decided to
extend its stay at the Windsor Court Hotel? Explore this possibility using the Expanded Template from the link above. This Excel file includes the full text of the extended example, in addition to the expanded Displacement Template for this calculation. A completed template is included, too, so you can check your answers.

Now that the group has offered to extend its stay and has added food and beverage revenue, shouldn't it receive an even lower rate? When you complete the calculation, you'll see that the minimum rate for the extended stay is actually higher!

The Windsor Court Hotel is a 300-room luxury hotel in New Orleans with an average rate of approximately $250.

A group would like a large number of rooms for three nights: January 19, 20, and 21.

The contribution margin for guest rooms is 80%.

Note: The contribution for guest rooms is $0.8 \times $250 = $200. Therefore, the variable cost is $250 - $200 = $50

...while the contribution margin for food and beverage is 30%.

The group will not need to rent function spaces except for meals.

The hotel's sales director anticipates that the group will purchase 1 lunch ($30/person) and 1 dinner ($50/person).
The number of rooms requested for each night is 200. The sales director has decided to use the number of rooms sold in January of the previous year as the forecast. These numbers are 204, 214, and 181.

<table>
<thead>
<tr>
<th>Dates</th>
<th>Forecast</th>
<th>Group Size</th>
<th>Displaced Rooms</th>
</tr>
</thead>
<tbody>
<tr>
<td>19</td>
<td>204</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>214</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>181</td>
<td>200</td>
<td></td>
</tr>
</tbody>
</table>

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Calculate the Group Rate

You must achieve a score of 100% on this quiz to complete the course. You may take it as many times as needed to achieve that score.

Points: 4.0

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Reflect on Group Rates for Your Action Plan

In the previous module, you began work on an action plan relating to group management, to be submitted at the conclusion of the course. You will now perform further work on that plan.

Instructions:

Open the action plan and review the work you did in the previous module. In the section labelled Notes, make notes of concepts or recommendations contained in the current module that you think may be useful to consider when you work further on your action plan. For each item that you include, indicate why you think it may be relevant to your situation.

Save your work. This action plan is a course requirement, but do not submit it at this time.

Before you begin:

While you won't submit the document now, please review the rubric (list of evaluative criteria) that will be used when you submit the document with notes and completed plan at the end of the course. Also, review eCornell's policy regarding plagiarism (the presentation of someone else's work as your own without source credit).

Grading Type: Not Graded
Module Six Wrap-up: Calculating Group Rates

Calculating Group Rates

In this module, you learned to calculate minimum group rates using the displacement method, a powerful tool for medium-term decision making. You saw a simple example and then studied an example involving multiple contributions.

Now you are able to explain the difference between revenue and contribution. You are able to calculate a group rate with multiple contributions using the displacement model, both by hand and using Excel.
Module 7: Group Forecasting

1. Module Seven Introduction: Group Forecasting
2. Watch: The Importance of Group Forecasting
3. Read: Group Forecasting Methods
4. Forecast the Groups
5. Talk about Groups
6. Module Seven Wrap-up: Group Forecasting
7. Complete and Submit Action Plan for Group Management
8. Watch: Thank You and Farewell

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Module Seven Introduction: Group Forecasting

Group Forecasting

In this module, you will consider two methods for creating a group forecast: one using the expected pickup and another using the utilization percent. In addition, you will consider the importance of group-forecast accuracy and discover the significance of several factors in achieving accuracy. You will also take a close look at short-term decisions.

When you have completed this module, you will be able to discuss short-term group decisions and use the group forecasting method to make short-term decisions. You will be able to calculate forecasting error and explain why forecasting error is important to consider.
Watch: The Importance of Group Forecasting

The Importance of Group Forecasting

The short-term decision in group management involves forecasting. This video explains the significant role of group forecasting in revenue management.
A group forecast is essential to your short-term group planning. Here are two methods for creating a group forecast. You may want to print this page for future reference. Click the link for a downloadable PDF version of the page.

**Method 1: Past Utilization of a Group**

One way to forecast the number of arrivals for a particular group is to develop a guideline based on how this group or groups like it have performed in the past. The *utilization percent* is one way of expressing how a group has performed in the past. Calculate this percent by dividing the number of rooms used by the number of rooms requested.

\[
\text{Utilization percent} = \frac{\text{number of rooms used}}{\text{number of rooms requested}}
\]

To create a forecast using the past utilization of a group, just follow these steps:

1. Using utilization data from sources such as historical records from your hotel, data from other hotels, and data from the local convention bureau, develop a utilization percentage for the group.
2. Multiply the group block (the rooms requested) by the utilization percentage.

The result is the group forecast. Let's see how this might work.

**Example:** Suppose a large professional group requests 100 rooms for 3 days. According to existing data on this group, it has a utilization rate of 50%. How many rooms should you hold for the group?

**Answer:** Using the utilization method, multiply the utilization percent by the group block (the number of rooms requested). In this case, the number of rooms requested (group block) is 100. 50% times 100 is 50 rooms.

*Your group forecast is 50 rooms for each day.*

**Method 2: Booking-Rate Information**

This method is similar to transient forecasting.

To create a forecast using booking-rate information, just follow these steps:

1. Use historical group data to calculate the expected pickup for the group.
2. Add expected pickup to the group reservations on hand.

The sum of these two numbers is the forecast.

| Example: | Suppose a large professional group wants 100 rooms for 3 days. You have kept information on large professional groups and have found that on average, you pick up 24 reservations during the 2 months before arrival, and you currently have 36 reservations for this group. What is your forecast? |
| Answer: | The forecast is found by taking the sum of reservations on hand and the expected pickup. The forecast for this group is $36 + 24 = 60$. |
Forecast the Groups

Use this quiz to test your mastery of the concepts covered in this section.

You must achieve a score of 100% on this quiz to complete the course. You may take it as many times as needed to achieve that score.

Points: 4.0

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Talk about Groups

Instructions:
You are required to participate meaningfully in at least two discussions in this course.

Discussion topic:
Is group business now or is it likely to become a significant aspect of your hotel's business landscape? If it is currently a significant aspect of your business, what are you doing to evaluate the profitability of group and other nonyieldable business, and with what degree of success? Have you gotten a request like the one from the West Indies Cricket Board, and, if you have, how did you handle it? If you were the sales director at the Accra Beach Hotel, would you accept that group? Why or why not?

To participate in this discussion:
Click Reply to post a comment or reply to another comment. Please consider that this is a professional forum; courtesy and professional language and tone are expected. Before posting, please review eCornell's policy regarding plagiarism (the presentation of someone else's work as your own without source credit).

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Module Seven Wrap-up: Group Forecasting

Group Forecasting

This module presented two methods for creating a group forecast: one using the expected pickup and another using the utilization percent. It also considered the importance of group-forecast accuracy.

You are now able to discuss short-term group decisions and use the group forecasting method to make short-term decisions. You are able to calculate forecasting error and explain why forecasting error is important to consider.

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Complete and Submit Action Plan for Group Management

In the last several modules, you have been looking at the significance of nonyieldable business and how to make group booking decisions.

In your action plan relating to group management, you have been taking notes relating to how these concepts and strategies may be relevant in your own situation, or in a hotel or business with which you are familiar.

It's now time to complete this action plan and submit it.

Instructions:

Open your saved Group Management Action Plan document. Referring to the notes you took, complete all sections of the plan. Save your work. Submit the action plan for instructor review by uploading it below. This assignment is required for course completion.

Before you begin:

Please review the rubric (list of evaluative criteria) for this assignment and eCornell's policy regarding plagiarism (the presentation of someone else's work as your own without source credit).

Grading Type: Pass/Fail
Points: 20.0
Submitting: Online Upload

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Watch: Thank You and Farewell

Thank You and Farewell

Thank you for taking this course.

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Supplemental Reading List

The Center for Hospitality Research provides focused whitepapers and reports based on cutting-edge research.


