
Demand for Transient Accommodations

In performing hotel-motel valuations and feasibility studies, appraisers are primarily interested in the micro, rather than the macro, aspects of demand. Micro demand for transient accommodations refers to the demand within a limited geographic area such as a town, city, or county. By quantifying the micro demand into measurable units such as room nights, half of the supply and demand equation is known. Macro demand is much broader in scope and takes into account national and international travel patterns. Although macro demand receives only limited attention in most appraisal reports, it is an important consideration; it often foreshadows changes in travel trends for micro areas.

Macro Demand

Four Categories of Data

Much of the macro data relating to travel in general and hotel demand in particular is compiled by government and industry organizations. This type of data can be divided into four categories based on how well it reflects trends in hotel-motel demand.

Category I consists of information pertaining to the actual use of commercial accommodations. These data relate to the number of travelers actually using hotels and motels throughout the United States—a direct measure of lodging demand. They provide the clearest indications of the current status of the hotel industry because the data require little extrapolation or interpretation. Examples of Category I data would include a survey of the number of travelers using hotel accommodations during their trips and quantification of the occupied hotel rooms within a specific macro market over a certain period of time.

Category 2 information pertains to travel that may entail the use of commercial accommodations. This type of data does not directly reflect demand for transient accommodations; rather, it provides a basis for drawing inferences

that could lead to supportable estimates. Examples of Category 2 data include information on amount of airline travel, attendance at recreational attractions, and the number of people traveling in general.

Category 3 data indicate the general condition of the national economy and describe the broad demographic trends that can have an indirect impact on the use of commercial accommodations. Like Category 2 data, this type of data does not directly reflect the demand for commercial accommodations; only indirect inferences can be drawn. Examples of Category 3 data include statistics on population growth and disposable income and various types of economic trend indicators.

Category 4 information details specific characteristics of transient travel demand (i.e., reasons for travel, types of accommodation selected, length of stay, and size of party). These data are used to evaluate the relative competitiveness of various types of hotels within a specific market.

The best type of data for quantifying hotel demand, evaluating historic trends, and formulating projections is Category I data. This type of data is generally available on a national basis from government-administered sources charged with the task of tracking travel data of all sorts. On a regional or micro level, most appraisers develop their own information on the specific market areas surrounding their subject properties and then augment their findings with competitive data provided by Smith Travel Research. The procedures for quantifying hotel demand will be discussed later in this book. Category 2 data are also readily available on a national basis, but they are sometimes difficult to obtain on the micro level.

Category 3 data covering most micro markets within the United States are available from many sources. Appraisers often use this type of data as a basis for forecasting future trends in hotel demand once a base level has been quantified through primary research techniques, which will be described in subsequent sections of this book. Category 4 data are available on a macro basis, but micro market data can rarely be obtained from public sources.

Most of the Category I and 2 data relating to macro hotel demand are compiled by the U.S. Travel Data Center, a department within the Travel Industry Association of America (TIA). This national, nonprofit center for travel research was established in 1973. Its primary purpose is to advance the common interests of the travel industry and the public by encouraging, sponsoring, and conducting statistical, economic and scientific research concerning travel, the travel industry, and travel-related industries. To meet this objective, the data center gathers, analyzes, publishes, and disseminates the results of its research and cooperates with government agencies, private industry, and academic institutions with similar goals. As a result, the center has become the premier source for national travel research. Membership in the TIA is highly recommended for any appraiser who actively evaluates travel-related properties. For more information, TIA's web site is www.tia.org.

Total Trips and Person Trips

The primary unit of travel demand used by the U.S. Travel Data Center is the "trip," where each trip unit represents the number of times a member or

members of a household travel to a place at least 100 miles from home, one way, and then return. A “person-trip” is a unit of measure that accounts for the number of persons on a trip. If three persons from a household go together on one trip, their travel is counted as one trip and three person-trips. Therefore, the average party size can be calculated by dividing the number of trips by the number of person-trips. This type of Category 2 data, for the period 1987 to 1998, is set forth in Table 3.1.

Between 1987 and 1997, the number of trips increased at an average annual compounded percentage rate of 2.4%, with this rate of growth accelerating slightly to 2.8% between 1990 and 1997. The strongest rate of expansion was recorded in 1992, when trips increased by 9.8%, while 1997 also saw an above-average rate of expansion equal to 4.8%. As for person-trips, this indicator increased at an average annual compounded percentage rate of 3.5% between 1987 and 1997, with acceleration in the rate of growth again noted between 1990 and 1997, when travel volume increased at an average compounded rate of 4.0% per year. Since mid 1992, the national economy has been expanding, driving stronger rates of growth for the decade than have

generally been recognized over the long-term. Most industry experts tend to consider an annual growth rate of 2% a reasonable benchmark for evaluating projected demand growth for a given market. Whenever an appraiser uses a higher demand growth rate, it must be recognized that such an estimate exceeds long-term national averages; thus, the applied growth rate should be justified by favorable local economic and demographic data.

Table 3.1 also illustrates the increasing trends in party size, where the average number of household members per trip has grown from 1.58 in 1987 to 1.75 in 1997. This dynamic resulted in a faster pace of growth among person-trips relative to trips. Whereas the rate of travel has increased since 1987, the size of the traveling parties has also expanded over this period.

Purpose of Trip

The U.S. Travel Data Center also reports the total travel demand broken down by the purpose of each trip. Table 3.2 shows trends in trip volume for

four separate categories of travel, including business, pleasure, vacation, and weekend trips. Total trip volume is also presented again for context. As a given trip may have more than one purpose, the total of the four categories of travel exceeds the actual number of total trips.

Between 1982 and 1997, the number of business trips increased at an average annual compounded percentage rate of 3.7%. Between 1990 and 1997, the rate of growth decelerated to 1.8% per year, while the year-to-year changes demonstrated some significant volatility. In the current decade, business travel volume receded in 1990, 1991, 1993, and 1994, and 1996. These declines were more than offset by strong gains in 1992, 1995, and 1997.

In contrast to the trends noted in business travel, pleasure travel volume accelerated in the current decade. Whereas the rate of growth between 1982 and 1997 equated to 2.8%, the growth rate between 1990 and 1997 equated to 3.0%. As with the number of business trips, the number of pleasure trips also surged in 1992. The number of pleasure trips declined in 1995, but was otherwise relatively consistent in its growth over the historical period.

Data for vacation trips was only available between 1987 and 1997. Over this period, the number of vacation trips increased at an average annual compounded percentage rate of 3.1%; the rate of growth decelerated slightly to 2.4% between 1990 and 1997. Weekend trips, where such data were only available only between 1990 and 1997, increased at an average annual compounded percentage rate of 4.3% over this period. The stronger rate of growth in weekend trips in recent years is tied to a national trend toward more frequent, but abbreviated, vacations. As opposed to extended vacations, Americans increasingly take advantage of the three-day weekends created by moving national holidays to Mondays. Destination resorts proximate to metropolitan centers have benefited from this dynamic, and commonly offer mini-vacations and weekend packages as a means of exploiting this characteristic of the market.

Overall, the historical trends indicate that gains in pleasure-related trips (including vacations and weekend trips) outpaced gains in business trips, although trends for each variety of travel have been positive.

Hotel Trips

Table 3.3 sets forth historical trip volume statistics for travelers using hotels and motels. It is important to note that this statistic pertains only to trips involving hotel and motel usage. Because the statistic does not account for the duration of the trip, the data does not necessarily correlate with hotel room nights occupied.

Between 1982 and 1997, the numbers of trips involving a hotel/motel stay increased at an average annual compounded percentage rate of 3.6%, with this rate of growth decelerating to 2.0% between 1990 and 1997. Offsetting declines in 1994, 1995, and 1997, hotel/motel trips surged in 1992 and 1996.

Again, the number of hotel/motel trips does not necessarily correlate with hotel room nights occupied. In 1997, the number of hotel/motel trips declined slightly, by 0.1%, although the number of occupied room nights actual-

ly increased in that year due to an increase in the duration of the average stay. Both the U.S. Travel Data Center, and Smith Travel Research (STR), the leading independent research firm serving the hotel industry, estimated the gain in 1997 occupied room nights at approximately 3.0%. More extensive data provided by STR will be detailed later in this text.

Additional characteristics associated with hotel/motel trips identified by the U.S. Travel Data Center, are as follows:

- 79% of travelers had one overnight destination; the remaining 21% had multiple destinations.
- 66% of trips involved travelers arriving by automobile, truck, or recreational vehicle (RV); 31% arrived by air.
- 54% of the trips involved only one household member; 28% of the trips involved two household members.
- Pleasure was identified as the main purpose of 54% of the trips; business was identified as the main purpose of 42% of the trips.
- 53% of the trips were described as a vacation.

- The average length of the hotel/motel stay was 3.4 nights.
- 51% of the trips involved overnight weekend travel.
- For 24% of the trips, a travel agent was consulted; 20% of the trips were booked with a travel agent.
- A car was rented for 22% of the trips.
- 19% of the trips included a child.
- The average round-trip distance was 1,159 miles.

Characteristics of Trips

The U.S. Travel Data Center also compiles Category 4 data on characteristics of trips. Table 3.4 shows the typical characteristics of different types of trips based on the purpose of the trip and the age of the traveler. Note that each of the categories is analyzed based on person-trips, as opposed to trips, with the exception of the hotel category.

In terms of the distance traveled, weekend and pleasure travelers tend to cover the shortest distances in the course of their trips. Business and vacation travelers generally cover longer distances, and such trips are more likely than other types of trips to require use of a hotel. In addition, older travelers are more likely to travel longer distances than younger travelers. The average round-trip distances ranged from a low of 802 miles among weekend travelers to a high of 1,159 miles among travelers using a hotel.

In terms of the mode of transportation, each category of traveler is most likely to arrive via an automobile, truck, recreational vehicle (RV), or rental car; however, weekend travelers, pleasure travelers, and travelers under the age of 18 are more likely than other travelers to use this mode of transport. Airplane travel is most common for business travelers, travelers requiring a hotel, and travelers between the age of 35 and 54.

Travelers over the age of 55 posted the longest average length of trip, with an average duration (excluding trips that require no overnight stay) of 5.1 nights. Vacationers posted similarly high average trip duration of 4.7 nights.

The lowest indication was posted by weekend travelers, who reported an average trip duration of 2.6 nights. Travelers using hotels and motels reported an average trip duration of 4.1 nights, equal to the average for all trips. As for the number of destinations per trip, travelers using hotels, vacationers, and travelers over the age of 55 were most likely to have multiple destinations.

Business travelers are the most likely of all types of travelers to require a hotel or motel in the course of their trips. Whereas 45% of all trips required hotels or motels in 1997, 64% of business trips required hotels or motels. Vacationers, weekend travelers, and travelers between the age of 35 and 54 also used hotels and motels more often than average in 1997. The average length of the hotel stay equated to 3.4 nights in 1997, with the duration of the stays exceeding this average for pleasure travelers, vacationers, and travelers over the age of 55.

As for the purpose of travel, 71% of all travelers reported that their trip was for pleasure, whereas 23% of all travelers reported a business purpose. In

contrast, of all those travelers who used hotel facilities on their trip, 54% had a pleasure-related purpose, while 42% had a business-related purpose. Otherwise, travelers aged 35 to 54 were more likely than other age groups to have a business-related purpose behind their trips.

Of all trips surveyed, 60% included a vacation component; categories for which this average was exceeded included pleasure travelers, vacationers, weekend travelers, and travelers under the age of 18, as well as travelers aged between 18 and 34. Overnight weekend travel was identified as a component of 52% of all trips, where an above average indication was noted in the following categories: pleasure, vacation, weekend, travelers under the age of 18, and travelers between the age of 18 and 34.

Every category surveyed identified the South Atlantic as the most common region of destination, with vacationers, travelers using hotels, and travelers aged 35 to 54 noting particularly high visitation to the South Atlantic. Business travelers reported the highest ratio of total travel to the Pacific region.

In terms of the number of household members on the trip, 53% of all trips involved a single member of the household, whereas the ratio for business travel was 71%. The average number of household members for all trips was 1.8, with business-related trips reporting an average of 1.5 household members per trip. In terms of age distribution, trips involving a traveler under the age of 18 reported an average of 3.5 household members, whereas trips involving a traveler aged 55 or higher reported an average of 1.7 household members. For 21% of all trips, a child was included in the travel plans, while 19% of trips involving hotel facilities included a child.

Travel Trends by Gender

The U.S. Travel Data Center also analyzed travel characteristics as differentiated by gender. Table 3.5 identifies the results of this survey.

Differences in travel trends among the genders have narrowed significantly in recent years. As of 1997, the categories in which the greatest disparity was realized were the share of person-trips with a business purpose and the share of person-trips with a vacation purpose. Less than 10 percentage points differentiated all other categories.

Month of Travel

Table 3.6 identifies month of travel statistics for 1996 and 1997. As indicated, travel is generally more concentrated in summer months, with July and August representing peak national travel times. Travel volume declines significantly in January and February, but is generally consistent throughout the remainder of the year.

Payroll Employment

Another way to gauge hotel-motel demand is to look at the number of people employed in the hotel-motel industry. Table 3.7 identifies the total number of people employed in the nation's hotels and other lodging facilities, between 1972 and 1998.

Between 1972 and 1998, employment levels in hotels and other lodging facilities increased at an average annual compounded percentage rate of 3.1%. The strongest rate of growth over this historical period was realized in the 1980s; during that decade, hotel employment increased at an average annual compounded percentage rate of 7.2%. Hotel supply increased dramatically through the 1980s, and recession in the early 1990s contributed to the significantly slower rate of hotel employment growth noted between 1990 and 1998. As indicated, hotel employment levels declined in 1991 and 1992. Since 1992, hotel employment growth has been relatively consistent at between 1.2% and 2.8% per year.

Modes of Transportation

Other useful Category 2 data come in the form of statistics relating to the usage of different modes of transportation. When evaluating trends in lodging industry demand, data on air and automobile travel are most relevant. Table 3.8 sets forth volume of U.S. air and automobile travel between 1982 and 1997.

Between 1982 and 1997, travel volume by air increased at an average annual compounded percentage rate of 3.8%, with this growth rate decelerating to 2.0% per year between 1990 and 1997. Growth trends for air travel have been highly volatile, particularly in the 1990s. Air travel volume surged by approximately 28% in 1992, then decelerated dramatically in 1994. Automobile travel volume has increased more consistently. Between 1982 and 1997, automobile travel increased at an average annual compounded percentage rate of 2.5%, accelerating to a 3.1% growth rate between 1990 and 1997.

The data in Table 3.8 were gathered by the U.S. Travel Data Center and based on travel surveys. Additional information on airline passenger traffic is published by the Air Transport Association and based on actual airline usage. Table 3.9 shows airline travel statistics, including revenue passengers enplaned (i.e., boarding an airplane) and the number of miles flown, between 1980 and 1998.

Between 1980 and 1998, the total number of passengers enplaned increased at an average annual compounded percentage rate of 4.1%, with this rate of growth decelerating slightly to 3.5% between 1990 and 1998. Over the historical period, the only years in which passenger volume decreased were 1981, 1989, and 1991.

Between 1980 and 1998, passenger miles increased at an average annual compounded percentage rate of 5.1%, with the rate of growth decelerating to 3.8% between 1990 and 1998. The rates of growth for passenger miles have historically exceeded the rates of growth for passenger volume, indicating that the average distance traveled has also increased. This dynamic repre-

sents a positive trend for the hotel industry, as longer trips are more likely to require a hotel stay.

An analysis of statistics on various modes of travel shows the relative importance of each. The automobile is by far the predominant means of transportation within the United States. It is also the primary means by which guests access lodging facilities. Air travel is second in importance, followed by bus and rail.

Table 3.10 summarizes the historical growth rates indicated in the preceding text, where such growth rates were indicated by the U.S. Travel Data Center findings. The rates of growth generally indicate stronger rates of expansion over the longer historical period, with decelerating growth indicated in the 1990s. These trends are chiefly a function of the early 1990s economic recession.

International Travel

Because travel is increasingly taking on a global perspective, pertinent statistics pertain to visitors to the United States from foreign countries. Table 3.11 identifies historical trends in visitation from Mexico, Canada, and other countries between 1980 and 1997.

Between 1980 and 1997, travel to the United States from Mexico increased at an average annual compounded percentage rate of 5.8%, decelerating to 3.2% between 1990 and 1997. Travel to the United States from Canada increased at an average annual compounded percentage rate of 1.7% between 1980 and 1997, but receded at an average annual rate of 1.9% between 1990 and 1997. Particularly significant declines were noted between 1993 and 1995, when the value of the Canadian dollar weakened relative to the American dollar. Among other countries, growth has remained strong and consistent historically, with an average annual percentage growth rate of 7.1%. Overall, arrivals to the United States from foreign countries increased at an average annual compounded percentage rate of 4.6% between 1990 and 1997, with the rate of growth decelerating to 2.8% between 1990 and 1997.

An alternate measure of travel to the United States from foreign countries is provided by the Department of Commerce, including both total visitors and total expenditures, between 1989 and 1998. The data are presented in Table 3.12.

Between 1989 and projected year-end 1998, international visitation to United States increased at an average annual compounded percentage rate of 2.7%, while total expenditures increased at a rate of 7.7% per year over the same period.

Foreign travel to the United States represents an extremely important source of national lodging demand because such travel usually requires the use of a hotel or motel. Historically, foreign travel to the United States has primarily benefited key gateway and resort cities such as Boston, Washington, D.C., Orlando, Miami, Houston, Los Angeles, San Francisco, and Honolulu. Note that trends in foreign travel are commonly tied to trends in the strength of the

American dollar. Periods in which the American dollar is weak tend to attract higher-than-usual levels of foreign travel, and often motivate domestic travelers to remain within the country rather than travel abroad. A strong American dollar has the inverse effect.

Statistics illustrating travel from the United States may also be pertinent in certain analyses. Table 3.13 sets forth historical trends in this variety of travel between 1985 and 1997.

American travel to Mexico increased at an average annual percentage rate of 4.4% between 1985 and 1997, decelerating to 1.1% between 1990 and 1997. A substantial decline was noted in 1996 as a result of political and financial instability in Mexico, although travel levels recovered in 1997, exceeding 1995 levels. Rates of growth in travel to Canada have remained relatively consistent historically, remaining in the range of 1.0% per year, while travel to other foreign countries has increased more significantly. Between 1985 and 1997, overseas travel increased at an average annual compounded percentage rate of 4.5%, slowing only slightly to 4.4% per year between 1990 and 1997.

Overall, travel to foreign countries increased at an average annual compounded percentage rate of 3.4% between 1985 and 1997, slowing to 2.4% between 1990 and 1997.

Macro Demand by Market Segment

The preceding discussion of the macro demand for lodging facilities focused on the overall market without regard to specific types of travelers. Since most hotels are oriented toward one or more market segments, however, the major components of the travel market must be identified. Most macro data are divided into three primary market segments: business travelers, meeting and group travelers, and pleasure or leisure travelers. Each segment has its own historic growth trends and demographic characteristics.

Business Travel

Often identified as “commercial” demand, business travel is the lifeblood of most lodging markets in the United States. Not only does the business travel segment represent the largest volume of room night demand, but on the whole it is the least price sensitive. A business-oriented hotel will generally achieve higher average room rates than a comparable facility catering to meeting and group travelers.

The demographics of the business traveler are of particular interest in evaluating the relative competitiveness of the various lodging facilities that attempt to attract this market segment. Earlier in this text, statistics provided by the U.S. Travel Data Center indicated that the number of business trips increased at an average annual compounded percentage rate of 3.7% between 1982 and 1997, slowing to 1.8% between 1990 and 1997. Note that business trips, as defined by the U.S. Travel Data Center, include trips for conventions and other business meetings. Otherwise, specific travel characteristics associated with business travel in 1997 were also set forth earlier in this text, although some of the pertinent statistics are summarized as follows.

- In 1997, the main purpose of 60% of the business trips was “general business,” while the main purpose of 9% of the business trips was a convention, seminar, or meeting.
- In 1997, 71% of the business trips involved only one household member.
- In 1997, 64% of business trips required use of a hotel or motel.
- The average length of a business trip in 1997 was 3.3 nights.
- In 1997, 36% of business trips included an overnight weekend stay. Overall, 30% of business trips were combined with a pleasure-related purpose.

Certain types of businesses tend to generate more hotel room night demand than others. Whereas non-profit organizations tend to have a limited impact on lodging demand, firms involved in wholesale trade tend to generate the largest amount of hotel demand. The finance, insurance, and real estate (FIRE) sector also tends to generate a strong share of business travel.

Meeting and Group Travel

Meeting and group demand is an important market segment for full-service hotels with meeting and banquet space. This segment is normally subdivided into three categories of meetings: corporate, convention, and association. Each has somewhat different characteristics and hotel requirements. Corporate meetings are generally organized by businesses and serve specific commercial needs. Conventions are normally large gatherings that can serve both business and social interests. Association meetings tend to be smaller than conventions and are commonly structured as business or educational functions.

The primary source of meeting and group travel data is the 1998 Meetings Market Report, conducted by *Meetings & Conventions* magazine, a Cahners Travel Group publication. The magazine has conducted the biennial survey of the meetings, conventions, and incentive industries since 1974. Plog Research, a marketing research company based in Reseda, California, provided research for the 1998 report. Table 3.14 sets forth the historical trends in meeting and group attendance, on a biennial basis, using data provided in the 1998 Meetings Market Report.

Between 1974 and 1997, total meeting and group attendance increased at an average annual compounded percentage rate of 3.0%, although attendance of this

sort decreased at a rate of 0.3% between 1991 and 1997. Between 1974 and 1997, association attendance increased at the strongest rate, growing at an average annual compounded percentage rate of 6.6%, although this variety of visitation also declined by a significant amount between 1991 and 1997, pacing the overall decline through the current decade. In contrast, convention visitation was essentially flat between 1974 and 1997, but increased at an average annual compounded percentage rate of 5.3% between 1991 and 1997. Of the three sources of meeting and group attendance, the corporate segment accounts for the largest total share. This segment posted an average annual compounded percentage growth rate of 3.2% between 1974 and 1997, but was basically flat between 1991 and 1997.

The 1998 Meetings Market Report also addresses the number of total meetings held by each segment of meeting and group demand. Table 3.15 identifies these statistics, on a biennial basis, between 1987 and 1997.

Between 1987 and 1997, the total number of meetings and conventions decreased at an average annual compounded percentage rate of 0.2%, with a moderate gain in association meetings offset by a decline in the number of corporate meetings and conventions. Between 1995 and 1997, gains in the number of conventions and association meetings were realized, with growth rates equal to 1.8% and 3.9%, respectively, while the number of corporate meetings decreased by 0.8%. The number of corporate meetings declined consistently since 1989, owing to corporate

downsizing and cuts in corporate travel budgets. Although the decline through 1991 was significant, the decreases in corporate meetings since that time have been comparatively minor.

Another important measure of meeting and group activity pertains to total expenditures on meetings. Table 3.16 sets forth these statistics on a biennial basis between 1987 and 1997.

Between 1987 and 1997, total meeting and group expenditures increased at an average annual compounded percentage rate of 3.8%, with strong gains noted in each of the three segments. Corporate meeting expenditures increased at the strongest rate, with a 4.3% growth rate, with growth in convention and association spending equal to 3.5% and 3.6%, respectively. Whereas the preceding trends in attendance and the number of meetings indicate a mix of positive and negative trends, the comparatively steady increase in spending across the three segments is a positive indicator.

Table 3.17 identifies the frequency with which the various types of facilities and meeting venues are used by the three varieties of meeting and group business.

For all three varieties of meeting and group demand, downtown hotels represented the most common venue. Sixty-one percent of those surveyed indicated that they had attended a corporate meeting in a downtown hotel, with 56% indicating that

they had attended a convention in a downtown hotel and 60% indicating that they had attended an association meeting in a downtown hotel. Suburban hotels were most commonly the sites of corporate and association meetings, and less popular venues for conventions. Resort hotels reflect a relatively balanced level of popularity among the three varieties of meeting and group demand.

Again, corporate meetings represent the largest of the three meeting and group segments. Table 3.18 describes this segment in greater detail.

Respondents to the survey indicated that training seminars represent the most common variety of corporate meeting (aside from "other"), followed by sales meetings and management meetings. New product introductions generally feature the largest attendance, with an average of 129, with group incentive trips featuring the second-largest average attendance at 102. Individual incentive trips reported the longest duration, with stays of 4.7 days, followed by group incentive trips at 4.4 days. The 1998 Meetings Market Report also indicated that the average length of lead time necessary to plan corporate meetings is six months.

Among the remaining meeting and group segments, association meetings tend to have attendance comparable to corporate meetings, in the range of 100 people, whereas conventions generally involve an average of 1,000 people. Lead planning

time for associations is generally comparable to that of corporate meetings, albeit slightly longer, whereas conventions are often planned years in advance.

The average size of meetings or conventions and the planning time required can be important considerations for a hotel appraiser. In valuing a hotel oriented toward the convention market, the appraiser should look at the amount and size of the meeting space in the facility to determine whether it is suited to meeting demand in the local area. For example, if the market is comprised mostly of corporate meetings, the meeting rooms should be relatively small and contain appropriate audiovisual and computer equipment. A convention market, on the other hand, requires facilities that can accommodate large groups and exhibit space.

The lead time for different types of meetings is particularly important for hotels under development. If major conventions are planned and hotels and meeting accommodations are selected three years in advance, any new hotel scheduled to open within this period should be pre-marketed so that convention planners will consider it. As the meeting capacity of a hotel increases, so must its marketing efforts prior to opening. A well-planned convention hotel will typically start its marketing program before construction begins.

Leisure Travel

Most of the sources for data on leisure travel were introduced earlier in this chapter. An additional reference is visitation counts compiled by the National Park Service. Table 3.19 shows these data for the period from 1980 to 1998, for all parks, as well as several of the most popular destinations.

Between 1980 and 1998, national park visitation increased at an average annual compounded percentage rate of 1.5%, with a comparable growth rate of 1.4% noted between 1990 and 1998. With the exception of Sequoia National Park, each of the separate parks identified in the table posted stronger rates of growth than that realized for all parks between 1980 and 1998. Between 1990 and 1998, visitation to Yellowstone National Park grew slightly below the national average, while visitation to Sequoia National Park receded.

Because each of the primary market segments displays specific characteristics that can affect the selection and use of a particular lodging facility, it is helpful to make a side-by-side comparison of the typical traveler characteristics for the commercial, meeting and group, and leisure segments of the market. Table 3.20 provides such a comparison.

Peak travel periods for commercial and leisure travelers are usually negatively correlated. Therefore, a hotel that is able to attract both of these segments is likely to have a smoother year-round occupancy pattern than a property that is largely

dependent on only one. The same analogy applies to weekly travel peaks for these two market segments.

The average length of stay affects many operational aspects of a hotel property. A hotel with a shorter average stay requires more front desk, luggage carriers, and accounting staff because more people will be checking in and out over the course of a week.

More cleaning staff may also be needed because maids can generally clean the room of a stay-over guest in less time than it takes to prepare a room for a new occupant. Operating costs increase with the number of checkouts.

An extended-stay property that attracts guests who stay longer than seven days solves the problem of the weekend occupancy drop-off, which occurs when commercial travelers go home for the weekend. In this situation, longer stays actually increase the potential stabilized occupancy. From a layout point of view, however, a hotel with a longer average length of stay such as a resort generally requires larger closets and more clothing storage areas to accommodate a greater amount of luggage.

Double occupancy refers to the average number of guests per room. Leisure demand, which includes many traveling families, has a double occupancy rate ranging from 1.7 to 2.5 people per room. Commercial demand, which is typically

composed of individual travelers, produces a double occupancy rate of 1.0 to 1.3 people per room. Many hotels are able to charge higher room rates for additional guests in a room, which tends to increase a property's overall average rate. In terms of design, a hotel with a high double occupancy rate requires more beds per room. A family-oriented resort should have at least two double beds in each room to accommodate its high double occupancy. On the other hand, a commercial-oriented property can offer a large number of rooms furnished with a single, king-sized bed. Properties with high double occupancies generally require larger closets, a second vanity sink, and larger rooms.

The use of food and beverage facilities is higher for meeting and group travelers than other market segments since many groups incorporate banquets and other forms of food service within their function schedule.

Macro Travel Price Data

Macro travel data pertaining to the price of hotel accommodations are also important to hotel appraisers. Since a hotel's rooms revenue is calculated by multiplying the number of occupied rooms (demand) by the price of each occupied room, trends in macro hotel room rates can be relevant in forecasting future changes.

Each year the Travel Industry of America compiles data pertaining to the Travel Price Index (TPI) for various components of the travel industry, such as transportation costs, airfares, lodging costs, and food and beverage costs. These indices are similar to the Consumer Price Index (CPI) in that they show the annual increases in prices caused by inflation and other factors. Table 3.21 shows the travel price indices for various travel components as well as the overall TPI.

Between 1988 and 1998, the total TPI increased at an average annual compounded percentage rate of 4.0%, with a significant share of this growth recorded between 1988 and 1991. In more recent years, the TPI has generally increased at levels below 4.0% per year. The most rapid rate of growth among the various TPI categories was lodging, which grew at an average annual compounded percentage rate of 5.2% between 1988 and 1998. Unlike the overall TPI, lodging has experienced strong increases in pricing in recent years, as the general health of the national lodging industry allowed for strong gains in hotel pricing relative to the overall TPI, and, as noted in the subsequent table (Table 3.22), the CPI. Airline fares are the only other TPI category where the pricing increases exceeded those realized for the overall TPI. Table 3.22 illustrates historical trends in the lodging TPI and the overall TPI in relation to the CPI for all urban consumers (CPI-U), between 1979 and 1998.

Gains in the lodging TPI have generally outpaced gains in both the overall TPI and the CPI-U historically. A comparable premium in the rate of gain in lodging prices

versus the overall TPI and the CPI-U is apparent for both periods of analysis, 1979 to 1998, and 1990 to 1998. Thus, whereas the average annual compounded percentage rate of lodging TPI gain decelerated to 5.5% between 1990 and 1998 (down from 6.9% between 1979 and 1998), the real gain relative to general inflation remained significant through the current decade.

The preceding trends indicate that gains in hotel room rates are not totally tied to changes in the CPI; they can also be market driven. For example, when hotel demand is strong and the market is under-supplied, occupancy levels will increase and room rates should show impressive gains. When hotel supply exceeds demand, occupancy levels will fall and hotel room rates will either level or start to decline. The trends indicated in Table 3.22 support these observations. National lodging markets became substantially overbuilt by the early 1990s, and as hotel operators sacrificed average rates in order to retain viable occupancy levels, the rate of gain in the lodging TPI slowed. Between 1993 and 1995, the rate of gain ranged from 2.8% to 3.9%. As the lodging industry's recovery progressed in more recent years, the environment for average rate recovery also improved.

Future Changes in Hotel-Motel Macro Demand

If the past in any way reflects the future, continuous changes in the transportation industry could have a significant effect on the characteristics of the average trip. The

supersonic transport may prove to be as revolutionary as the jet plane, allowing travelers to make international trips in a single day. Higher-priced gasoline could reduce the mobility of the average vacation traveler, while greater use of mass transportation and the possible rebirth of rail service might prompt travelers to bypass highway facilities altogether. More sophisticated telecommunication systems may someday make in-person business meetings and conferences obsolete.

Future macro travel projections should also reflect potentially positive factors. In the past decade companies have given their employees more fringe benefits, including longer vacations. Some firms have even implemented a four-day workweek. Although these trends do not necessarily mean increased travel, they do add to the time that families can be away from home.

A growing number of senior citizens with better retirement incomes and more desire to travel could also generate additional lodging demand. Increased foreign travel to the United States and a more travel-oriented society in general could mean more business for the lodging industry.

Micro Demand

In preparing a hotel market study and appraisal, accurate quantification of micro demand is essential. The unit of measurement commonly employed is the room night.

A room night is defined as one transient room occupied by one or more persons for one night. For example, a business traveler who stays at a motel for three nights accounts for three room nights. A family that uses one room for three nights also generates three room nights. If this family had occupied two guest rooms during their stay, the demand generated would have been six room nights.

The total number of room nights within a defined market area represents the total potential demand, which can be measured on a daily, weekly, monthly, or yearly basis, depending on local travel patterns.

The total demand for transient accommodations within a micro market is generally quantified using the build-up approach based on an analysis of lodging activity; secondary support is provided by the build-up approach based on an analysis of demand generators.

To apply the build-up approach based on an analysis of lodging activity, an area's transient room night demand is estimated by totaling the rooms actually occupied in local hotels and motels. Through interviews with hostelry operators, owners, and other knowledgeable individuals, occupancy levels for individual lodging operations and area occupancy trends can be established. The percentage of occupancy for each property times the available number of rooms is multiplied by 365 days to produce the total number of room nights actually occupied each year. The area's

total room night lodging demand can be quantified by combining the estimated number of occupied hotel rooms for each property and adding a factor for latent demand.

The build-up approach based on an analysis of demand generators involves interviews and statistical sampling market research. Lodging demand is estimated by totaling the room nights generated from sources of transient visitation. Drawing from a sample of major transient generators located within a defined market area, interviews and surveys are conducted to determine the amount of demand each source attracts during a specified period of time, such as a week or a month. When these data are combined with other survey information such as facility preferences, price sensitivity, the nature of the demand and travel patterns, the analysis of demand generators provides both support and amplification for the findings derived from the analysis of lodging activity.

Appraisers use a combination of the two procedures to save time and unnecessary research effort. In practice, an overall area demand is first established by analyzing lodging activity. Then selective interviews are conducted at one or more major generators of visitation to verify the transient demand and establish traveler characteristics. By defining not only the quantity of transient demand but also its lodging characteristics, the analyst has enough data to develop a micro demand

projection. Because each market area is unique, the analytic approach often must be adjusted to account for particular demand characteristics.

Build-Up Approach Based on an Analysis of Lodging Activity

The build-up approach based on an analysis of lodging activity is generally performed in seven steps.

1. Define the primary market area.
2. Define the area's primary market segments.
3. Identify all primary and secondary competitive lodging facilities in the market area and determine their individual room counts and competitive weighting factors.
4. Estimate the percentage of occupancy for each competitive hotel or motel on an annual basis and determine the percentage relationship between each market segment and the whole market.
5. Quantify the accommodated room night demand by multiplying each property's room count by its annual occupancy and then by the 365 days in a year. Each property's total accommo-

dated room night demand is then allocated among the primary market segments (i.e., commercial, meeting and group, and leisure) within the market area.

6. Estimate latent demand, which includes both unaccommodated and induced demand.
7. Quantify the area's total room night demand.

After each of these steps is discussed, it will be demonstrated using a single case study example. The case study introduced in this chapter is developed and referenced throughout the book.

Define Primary Market Area

The first step in analyzing lodging activity is to define the subject's market area. The market area for a lodging facility is the geographical region where the sources of transient visitation (demand) and the competitive supply are

located, To delineate the boundaries of a market area, four factors must be considered:

1. Travel time between the source of visitation and the subject property
2. Methods of travel commonly used
3. Sources of transient visitation
4. Location of competitive lodging facilities

Travel time is generally a better measure of distance than miles because highways, road conditions, and travel patterns differ. Most people are willing to travel up to 20 minutes to get from a source of visitation to their lodging accommodations. If most of visitors' travel time is spent on high-speed, interstate highways, the market area will be larger than if the route to the subject facility is along busy downtown streets.

The 20-minute market area radius is a rule of thumb that is generally appropriate for suburban areas. In rural regions the travel time radius can be signif-

icantly increased- sometimes to as much as one to four hours. Central business districts usually have a much shorter travel time radius of five to 10 minutes.

The means of transportation used also affects travel time. For example, a convenient rapid transit system can increase the market area by shortening the length of time needed to reach the subject property. Airport properties that depend on shuttle bus service should consider visitors' waiting time. These hostelrys should be located no more than 10 minutes from the airport to allow for a 20-minute round trip.

The analyst should locate the subject property on a detailed road map and indicate points that could be reached within 20 minutes travel time. Connecting these points creates an irregular circle, which represents the boundaries of the initial market area. To determine the actual shape of the final market area, certain adjustments must be made to show the influence of competition and other demand characteristics.

Before any modifications are made, however, all potential sources of transient visitation within the initial market area should be identified and located on the map. Any attraction that draws out-of-town travelers who require commercial lodging facilities is a source of transient visitation. A representative list of visitation sources and the methods used to quantify their micro demand are presented later in this section.

After the initial market area has been determined, all competitive hostelries should be located on the map and their positions with respect to the subject property and sources of visitation should be noted. Travelers tend to stay at the lodging facility closest to their destination, assuming the property meets certain requirements. If a comparable hotel is located between a source of demand and the property being appraised, the competitive facility may attract patrons first, and the subject hostelry will receive the overflow. Care must be taken to evaluate the drawing power of the competition because travelers will generally bypass one facility for another if it better suits their needs and budget. The location of competitive properties between the prop-

erty being appraised and the attraction generating business can decrease the size of the initial market area and may even eliminate some sources of visitation from consideration.

In evaluating competition, local travel patterns and popular routes are important factors. Travelers usually prefer to travel along familiar routes and are not inclined to venture into unfamiliar areas. If the customary route to a source of demand happens to bypass the subject property, its potential for capturing that market is greatly reduced. The location of one or more comparable lodging facilities along the route also decreases the drawing power of the subject property. Traffic counts and origination and destination studies prepared by state and local agencies can help pinpoint popular routes and identify area travel patterns. By plotting this information on the map showing the initial market area, appropriate adjustments can be made to the boundaries indicated. The resulting enclosure is the final market area and contains the sources of transient visitation available to the subject property.

This first step in the build-up approach for quantifying demand based on an analysis of lodging activity is demonstrated on the following pages.

CASE STUDY

The case study that follows is presented to illustrate the market analysis and valuation procedures described in this text. The example will be developed further in later chapters demonstrating the collection and development of data that lead to a final opinion of value. The case study will involve two scenarios, one involving an existing 200-room Embassy Suites, and a second involving a proposed 250-room Sheraton Hotel. The proposed hotel is assumed to enter the same lodging market in which the existing Embassy Suites operates. The location is real, and although the data is realistic, it has been fabricated. In addition, the techniques employed to quantify demand and project income and expenses for this property are applicable to all types of lodging facilities.

Because every appraisal assignment is unique, the techniques used to collect and process data into an estimate of value must be tailored to meet the par-

ticular situation. Few assignments require the type of detailed analysis set forth in this case study. Many factors influence the applicability of the various approaches, including the availability of data, the nature of the market, the characteristics of the subject property, and time and economic considerations. An experienced hotel consultant can generally arrive at a credible estimate of value using a more abbreviated set of procedures.

Background

The subject lodging market consists of various hotels and motels located throughout suburban Long Island. The existing Embassy Suites and the site of the proposed Sheraton are both located in the same general area formed by the intersection of Interstate 495 and Route 110. The numerous benefits associated with this location have allowed the Embassy Suites to generate strong occupancy levels historically. Because of the high level of traffic, it affords especially good exposure. Interstate 495 is a heavily traveled, east-west artery connecting various suburban communities with a nearby urban center, and Route 110 is a four-lane, north-south feeder road that provides access to several large industrial and office parks.

The surrounding neighborhood has experienced strong growth over the past ten years as the nearby urban center has extended its area of influence. What was once farmland now supports residential developments, regional shopping malls, office complexes, and industrial districts. Several large aerospace and communications manufacturers have established plants in the area; these manufacturers provide work for many smaller subcontracting production firms. These high technology businesses support an affluent population with large disposable incomes, attractive homes, and a leisure-oriented lifestyle.

Although the aerospace industry tends to be highly cyclical, most of the larger plants have long-term government contracts. County planners expect moderate growth to continue. More than 40% of the land remains undeveloped and the area has been attracting many firms from the nearby urban center.

The Embassy Suites site measures approximately five acres and is located in the northwest quadrant of the intersection formed by Interstate 495 and

Route 110. The hotel was developed consistent with the chain's construction standards, and features 200 suites oriented around a central high-rise atrium. Each guest suite features distinct living room and bedroom areas, separated by a wet bar and bathroom. The hotel also features a 100-seat restaurant and lounge, and approximately 5,000 square feet of meeting space. It is operated by Hotel Equity Investors under a franchise agreement.

As a result of the recent wave of economic growth, new first-class, full-service hotel development has potentially become cost-justified. A developer is considering developing a 250-room Sheraton Hotel on a seven-acre site located in the southeast quadrant of the intersection formed by Interstate 495 and Route 110. In addition to its 250 guest rooms, the hotel will have a 180-seat restaurant, a 50-seat lounge, a 40-seat lobby bar, and approximately 15,000 square feet of meeting space. The decor and construction specifications indicate a top-quality property capable of attracting first-class patrons. For purposes of this analysis, the Sheraton Hotel is assumed to open as of the first day of the third projection year.

Define Primary Market Area

On a detailed highway map, the sites of the existing Embassy Suites and the proposed Sheraton Hotel are identified. Based on the sites' suburban locations, a 20-minute drive time is considered appropriate. A route is traced along each major highway starting at this intersection and ending at a point 20 driving minutes away based on average highway speeds and road conditions. The accompanying map illustrates the two, long radiating routes on Interstate 495 and Route 110. Secondary roads intersecting these two highways are also measured for travel time. The end points of all possible routes on the map are then joined by a continuous line; the resulting market area resembles a circle that has been pushed in on four sides. (The numbers on the map indicate demand generators, discussed in greater detail later in this text.)

Most of the visitors to the market area arrive by automobile. Although limousine and taxi service from the nearby airport is available, rental cars are the preferred means of transportation.

Define Market Segments

Once the market area has been outlined, the appraiser should determine the primary segments of transient demand now using local hotels. The three market segments found in most areas are commercial, meeting and group, and leisure. Other market segments that are sometimes considered include extended-stay, government, airline crews, sports teams, military, truck drivers, and cruise ships.

Market segmentation is a useful procedure because individual market segments generally exhibit unique characteristics relating to future growth potential, seasonal aspects of demand, average length of stay, rates of double occupancy, facility requirements, price sensitivity, and other factors. Once the room night demand has been quantified by market segment and the individual characteristics of each segment have been defined, the future demand for transient accommodations can be more accurately forecast by making separate projections for each market segment.

Some unique characteristics of the major market segments are described below.

Commercial Segment

The commercial market segment is composed of individual business people visiting the various firms within a market area. Commercial demand is strongest Monday through Thursday nights, declining significantly on Friday and Saturday and increasing somewhat on Sunday. The typical length of stay ranges from one to three days and the rate of double occupancy is low at 1.2 to 1.3 persons per room. Commercial demand is relatively constant throughout the year, with some drop-off in late December and during other holiday periods. Individual business travelers are not overly price-sensitive and generally use a hotel's food, beverage, and recreational facilities. Commercial travelers usually represent a highly desirable and lucrative market segment

for hotels because they provide a consistent demand at room rates approaching the upper limit for the area.

Meeting and Group Segment

The meeting and group market includes individuals attending meetings, seminars, trade association shows, and similar gatherings for ten or more people. Peak convention demand typically occurs in the spring and fall. Because of vacations, the summer months are the slowest period for this market segment; winter demand can be variable. The average length of stay for typical meeting and group travelers ranges from three to five days. Most commercial groups hold their meetings Monday through Thursday, but associations and social groups sometimes use the weekends. Commercial groups tend to have a low double occupancy of 1.3 to 1.5 persons per room, while social groups are likely to have somewhat higher double occupancy rates ranging from 1.5 to 1.9. Meeting and group patronage is generally quite profitable for hotels and motels. Although room rates are sometimes discounted

for large groups, the hotel benefits from the use of meeting space and the inclusion of in-house banquets and cocktail receptions.

Leisure Segment

The leisure segment consists of individuals and families spending time in the area or passing through en route to other destinations. Their purposes for travel may include sightseeing, recreation, relaxation, visiting friends and relatives, or other non-business activities. Leisure demand is strongest Friday through Saturday nights and all week during holiday periods and summer months. These peak periods of demand are negatively correlated with commercial visitation patterns, demonstrating the stabilizing effect on occupancy produced by capturing weekend and summer tourist travel. The typical length of stay for the leisure traveler ranges from one to four days, depending on the destination and the purpose of travel. The rate of double occupancy is generally high-1.8 to 2.5 people per room. Leisure travelers tend to be the most price-sensitive segment in the lodging market. Many prefer low-rise accommodations with parking convenient to the rooms; vacationers typically

demand extensive recreational facilities and amenities. Ease of highway access and proximity to vacation-related attractions are important location-related considerations.

CASE STUDY

Define Market Segments

The primary market segments observed during fieldwork in the subject's market area were commercial, meeting and group, and leisure. In addition to these primary segments, a number of secondary segments such as airline crews, bus tours, and military personnel were noted. Because the impact of these secondary segments on total demand is considered minimal, they were merged into the appropriate primary segments in allocating room night demand.

Identify Primary and Secondary Competition, Room Counts, and Competitive Weighting Factors

The primary and secondary competitive lodging facilities located within a market area are part of the over-all lodging supply, which can be defined as all transient accommodations catering to overnight visitors. Transient accommodations include hotels, motels, conference centers, bed and breakfast inns, rooming houses, health spas, and other facilities. Although all transient lodging facilities operating in the same market area compete with one another to some extent, only those that are considered primary or secondary competition are generally included in the lodging analysis.

Primary competitive lodging facilities are hotels that are similar to the subject property with respect to the class and type of facilities offered and attempt to capture the same type of transient visitor. Secondary competition consists of lodging facilities that would not normally attract the same type of transient visitor, but become competitive because of special circumstances.

Determining which hotels represent primary or secondary competition and which provide no competition at all is largely subjective. Relative competitiveness can be evaluated by looking at area demand and identifying the different types of accommodations that transient visitors are actually selecting. Alternatively, competitive supply can be examined to identify accommodations that are similar to the subject in their market orientation (i.e., facilities, class, image, location, and other characteristics).

Demand generator interviews can provide information on the types of accommodations market area travelers are currently utilizing. The responses to interview questions should allow the appraiser to pinpoint which lodging facilities are competitive with each other and why.

To evaluate the similarities of facilities and the market orientation of the hotels that comprise the lodging supply, an appraiser may visit each property and judge its competitiveness using specific criteria. The following questions

could be used to judge whether a lodging facility represents primary or secondary competition or does not compete with the subject property at all.

- Does the hotel occupy a similar location? Is it within 20 travel minutes of the demand generators? Is it identified with a specialized location such as an airport, convention center, downtown area, or resort?
- Is the hotel similar in terms of the types of facilities offered? Specialized types of hotels include: convention, resort, suite, residence, conference center, casino, and health spa.
- Does the hotel offer similar amenities? Amenities may include restaurants, lounges, meeting rooms, a pool (indoor or outdoor), a health spa, tennis courts, and golf facilities.

- Is the hotel similar in class -- i.e., quality and price? Classes of lodging facilities include luxury, first-class, standard/mid-rate, economy/budget, and hard budget.
- Is the hotel similar in image? Image refers to the hotel's brand name, local reputation, management expertise, and unique characteristics.

Area hotels can be considered primary competition if they are similar to the subject property with respect to many of these criteria, particularly those related to types of facilities, class and image. Secondary competition would include hotels that are similar in location-related characteristics, but meet few of the other criteria, particularly class and image. Secondary properties are considered competitive because they sometimes attract the same market or travelers as the subject property and other primary competitors.

When all primarily competitive hotels are sold out, travelers desiring these accommodations must settle for one of the secondarily competitive properties. If, for example, a traveler wanted an upscale, first-class hotel, a budget property would be the secondary alternative. A budget traveler who found all the economy properties filled might have to patronize a first-class facility.

A secondary competitor is sometimes in demand because it has a particularly good location. A secondary property adjacent to a demand generator may do good business in inclement weather when people want to stay at the first hotel they encounter.

Generally a secondary hotel is not as competitive as primary properties. To reflect this lesser degree of competitiveness, an appraiser will generally assign a weighting factor to a secondary property, which effectively reduces the hotel's room count. For example, a 100-room, secondary hotel that is considered to be 25% competitive with the subject property is assumed to have an effective room count of only 25 rooms. This assumption not only reduces the existing supply of competitive hotel rooms, but it also lowers the area's cur-

rent room night demand. If the appraiser determines that more than one hotel can be considered secondarily competitive, then all of the secondary properties are typically combined into a single hotel using a weighted-average calculation in the market analysis. These combining calculations and the overall impact of secondary hotels will be illustrated in the case study example.

Usually a few hotels in the market area offer no competition to the subject property and are therefore not considered in the analysis of lodging activity. These properties are generally so dissimilar to the subject property that any crossover of demand would be highly unlikely. Most travelers would probably defer their trip if they were unable to obtain accommodations in either the primary or secondary competitive properties.

To quantify hotel room night demand using the build-up approach based on lodging activity, it is necessary to determine the room counts of all competitive hotels. This information is usually available directly from the properties or from various lodging directories. The room counts of any hotels that

opened during the 12-month base year must be adjusted based on estimates of occupancy and market segmentation. For example, the 124-room Courtyard by Marriott identified subsequently in the case study opened in early July of the base year period, which extended from January 1 to December 31. Since the Courtyard only operated for six months of the base year period, its historic average room count (HARC) is 62 rooms ($50\% \times 124 = 62$).

The historic average room count is the hotel's room count multiplied by the percentage of the base year that the property is actually open. In addition to weighting the impact of new hotels on the market, the HARC can also be used to adjust the room counts of seasonal properties that close for a portion of the year and existing hotels that add new rooms during the base year.

CASE STUDY

Identify Primary and Secondary Competition, Room Counts, and Competitive Weighting Factors

A survey of the subject market area revealed a total of 20 hotels containing 2,762 rooms. Of these 20 hotels, nine (including the Embassy Suites) were judged to represent primary competition (1,604 rooms) and six were considered secondarily competitive (743 rooms). Five hotels do not compete in the subject lodging market at all. The general criteria applied to identify primary and secondary competition are outlined below.

- Location. Competitive hotels are either within or close to the previously defined market area.
- Facilities. All hotels must offer individual guestrooms on a transient basis.
- Amenities. To be considered primary competition, a hotel must offer a full range of amenities including a restaurant, a lounge, meeting rooms, and a swimming pool. Secondarily competitive hotels must provide televisions, direct dial telephones, full baths, air-conditioning, 24-hour attended front desks, and daily maid service.
- Class, quality, and price. Primary competition includes first-class, full-service hotels. Secondary competition includes mid-rate, full-service hotels, a limited-service hotel, an extended-stay hotel; and a

Five-Star luxury hotel. All competitive hotels must offer clean, comfortable, and safe accommodations.

- Image. A hotel needs a national affiliation or a strong local reputation to be included as primary competition. Hotels with poor reputations are not included in the primary or secondary competition.

Primary Competition

The hotels considered primarily competitive with the subject property are shown in Table C.S.3.1. The room counts were obtained from lodging directories.

Secondary Competition

The hotels listed below are considered secondarily competitive within the subject competitive market. These hotels are identified as secondary competition rather than primary competition because of differences in location, product quality, and/or market orientation.

- Red Roof Inn
- Super 8
- Microtel
- Residence Inn
- Delta Inn
- Four Seasons

These six secondarily competitive hotels were evaluated to determine their degree of competitiveness within the competitive market. Based on the competitive criteria outlined above, competitive weighting factors were assigned to each secondary hotel (see Table C.S.3.2). When used in a supply and demand analysis, a competitive weighting factor effectively reduces a hotel's room count.

Five hotels in the market area are not considered either primary or secondary competition because they have poor local reputations, do not offer the required amenities, and have no national affiliation.

Estimate Occupancy and Determine Market Segmentation

The key ingredient in the build-up approach based on an analysis of lodging activity is the occupancy estimate for each of the primary and secondary competitive hotels in the market area. The estimate of competitive occupancies should cover a full, 12-month period. Ideally this period, which is called the base year, will closely precede the first year projected in the supply and demand analysis.

When collecting occupancy and average room rate data, the appraiser should be aware of several factors that could skew the data and produce errors in the analysis. For example, occupancy is calculated as the number of rooms occupied over a period of time divided by the number of rooms available. The appraiser should first understand how the hotel defines "rooms". Generally, a room is synonymous with the term hotel unit, which is the smallest accommodation that can be rented to a guest. Each unit must have a full bath and its own entrance to a public hallway or to the exterior. Some hotel units are composed of two rooms, but since such a unit may have only one entrance or

one bath, it would be impossible to rent it to two unrelated parties. If, on the other hand each room has its own bath and entrance and the connection between the two rooms can be locked, then each room could be considered a separate unit.

The second factor to be examined in gathering occupancy data is how the hotel handles complimentary rooms. Most hotels have a small percentage of rooms that are provided on a complimentary basis to hotel guests. Since these rooms do not generate rooms revenue, they are sometimes omitted from the hotel's occupancy calculation. However, these complimentary rooms do represent a form of hotel utilization and should be included in the calculations when the lodging activity approach is used to quantify hotel room night demand. The appraiser should therefore always ask for the percentage of occupancy that includes complimentary rooms. The inclusion of complimentary rooms also affects the calculation of average room rate, which will be discussed later.

The need to divide the market's overall room night demand into individual market segments has already been discussed. In applying the lodging activity approach, market segmentation is determined by interviewing competitive management about the percentage relationship of each market segment to the whole market. This information is usually not considered confidential and should be easily obtained from each of the hotels. The appraiser must define the market segments in detail before asking about percentage relationships so the interviewee will understand and employ the same basis in allocating the hotel's occupied rooms. The percentages should add up to 100% when all segments are considered.

CASE STUDY

Estimate Occupancy and Determine Market Segmentation

Occupancy, market segmentation, and historic average room counts have been calculated based on field interviews and in-house data. The current level of occupancy is estimated for each of the competitive hotels in the mar-

ket. Because the fieldwork for the appraisal was performed in the first quarter of the year following the base year, the estimates of occupancy and market segmentation apply to the calendar base year. In addition to estimated occupancy levels, market segmentation percentages have been established for all the competitive hotels based on the relationship of each market segment to the whole. As described previously, this appraisal recognizes three market segments: commercial, meeting and group, and leisure. To account for hotels that open during the base year, the historic average room count (HARC) is used instead of the actual room count.

To reduce the number of calculations required, the hotels comprising the *secondary competition* are combined into a single aggregate hotel by applying weighted averages. The aggregate hotel is called the “Secondary Competition.” Table C.S.3.3 sets forth the necessary calculations.

The weighted average is calculated by multiplying the effective room count of each hotel by the appropriate occupancy or market segmentation percentage. The sum of these products is then divided by the total effective room

count (420). Table C.S. 3.4 shows the weighted-average calculation for occupancy.

Table C.S.3.5 shows the operating characteristics of each of the nine primary hotel competitors and the aggregate secondary competition. A similar weighted-average computation is made to determine the market-wide occupancy and market segmentation percentages.

Quantify Accommodated Room Night Demand

The current accommodated room night demand for each market segment is calculated separately for each competitive hotel using the following equation:

$$\text{Historic average room count} \times \text{occupancy} \times \text{market segmentation} \times 365$$
$$= \text{Total accommodated room night demand}$$

The number of occupied rooms per market segment for all the competitive hotels in the market area is then combined to yield the area's current accommodated room night demand. The accommodated room night demand represents the actual number of competitive rooms occupied during the base year.

CASE STUDY

Quantify Accommodated Room Night Demand

Table C.S.3.6 shows the estimated accommodated room night demand divided by market segment.

Fair Share, Market Share, and Penetration Factors

Each competitive hotel's historical performance may be judged by comparing the respective occupancy rates. A statistical measure of each hotel's performance is the penetration factor, which relates a specific hotel's performance (both overall and by segment) to that of the market at large. The penetration factor calculation is based on each hotel's fair share, which simply equates to a given property's room count divided by the market-wide room count. The fair share percentage functions as the denominator in all penetration factor calculations, whereas market share is the numerator. Market share represents that portion of demand actually accommodated by a particular property (either overall or by segment), divided by market-wide demand. Market share divided by fair share results in a penetration factor.

CASE STUDY

Fair Share, Market Share, and Penetration Factors

Table C.S.3.7 shows the basis for the calculation of each competitive property's fair share factor. The fair share factor is calculated by dividing the HARC of each particular property by the market-wide HARC.

Table C.S.3.8 identifies the basis for the calculation of each competitive property's penetration factor. The penetration factors are calculated for each segment, as well as "overall."

Demonstrating the methodology, consider the 148.0% penetration factor achieved by the Embassy Suites in the commercial segment. In the base year, the Embassy Suites accommodated 45,552 room nights of commercial segment demand. Dividing this figure by the market-wide commercial demand of 302,298 generates a market share factor of 15.1%. Dividing this market share factor (15.1%) by the Embassy Suites' fair share (10.2% -- calculated by dividing 200 by 1,962) results in the penetration factor (148.0%). In other words, the Embassy Suites accommodated 148% of its fair share of commercial demand in the base year, demonstrating its great success and appeal in this particular market segment. Overall, the Embassy Suites accommodated 108.1% of its fair share of market demand, matching the level of market pen-

etration recorded in the base year by the Quality Inn. These two hotels led the competitive market. The Days Hotel, the Holiday Inn, and the aggregate of secondary competitors also accommodated more than their fair share of market demand in the base year. The remaining competitors attracted less than their fair share of market demand. Also of note, the Embassy Suites led the market in commercial segment penetration, while the Hilton was particularly strong in the meeting and group segment, and the Quality Inn led the market in the leisure segment.

Estimate Latent Demand

The area's current accommodated room night demand is based on actual occupancies and accounts for only those hotel rooms that have been used by guests. It does not consider other types of demand that may have been present in the market but, for one reason or another, have not been accommodated by the current supply of lodging facilities. This additional demand is

called latent demand and is composed of both unaccommodated demand and induced demand.

Unaccommodated Demand

Unaccommodated demand represents transient travelers who seek accommodations within a market area but, because all the local lodging facilities happen to be filled, must defer their trips, settle for less desirable accommodations, or stay outside the market area.

Since this type of demand is not actually accommodated by the area's lodging facilities, it is not included in the room nights quantified in the previous steps of the lodging activity approach.

Unaccommodated demand is actually a form of excess demand that develops because of the cyclical nature of the hotel business. For example, in markets where commercial demand predominates, area occupancy levels Monday

through Thursday often approach 100%, which indicates that many travelers are not being accommodated locally. Many resort market areas also sell out during peak vacation periods, thereby generating unaccommodated room night demand. Because hotels cannot expand or contract in response to cyclical lodging demand, unaccommodated transient visitation is a normal occurrence in many market areas.

In quantifying the current hotel room night demand, unaccommodated demand only becomes a factor when the number of competitive rooms in the market is expanding. As the supply of hotel rooms increases, more of the previously unaccommodated demand will be accommodated during periods of peak visitation. Since these uncounted room nights will help cushion the dilution effect of adding more rooms to a market, it is important to quantify the number of unaccommodated travelers attempting to use lodging facilities in the area.

Quantifying the room nights that are not currently being accommodated in a market is a difficult task requiring both judgment and experience. The fol-

Following list outlines some factors that should be considered in deriving this type of estimate.

- The nature of the demand. Does the area demand tend to be cyclical and concentrated at certain points in time (e.g., Monday through Thursday, vacation periods, special local events)?
- Area occupancy. Considering the nature of the area's transient demand, are most of the local lodging facilities operating at appropriate stabilized levels of occupancy? For example, in a typical, commercially oriented market where lodging demand is high Monday through Thursday and drops considerably over the weekends, one might expect that a strong stabilized level of occupancy would be approximately 70%. Under these circumstances an area-wide occupancy of 78% could produce a significant amount of unaccommodated demand. If most of the area's hotels were operating at 60% occupancy, however, the amount of the unaccommodated demand would probably be negligible.

- **Fill nights.** How many fill nights are area hotels experiencing?
In conducting competitive interviews the appraiser should try to determine the number of nights area hotels are actually filled to capacity. Once this number has been established, the number of turn-away room nights can be quantified. Sometimes hotels with centralized reservation systems maintain monthly denial reports, which show the number of people who called to make reservations at a specific hotel, but were denied because the property was fully booked. Occasionally individual hotels also track the number of walk-ins (i.e., people who arrive without reservations) turned away on days the hotel is fully booked.
- **Alternative accommodations.** If it appears that a sizable amount of unaccommodated demand exists in an area, the appraiser might want to conduct interviews at alternative accommodations to identify the sources of their demand and to determine whether a portion of these customers would choose other facilities if they were available. Alternative accommoda-

tions might include lodging facilities outside the market area or hotels within the area that are considered less desirable.

In most instances data on fill nights and turn-away frequency are not available. Appraisers should try to obtain as much information as possible, but they must be prepared to estimate unaccommodated room night demand without a strong factual basis. The appraiser's experience plays an important role in quantifying unaccommodated demand. By observing numerous market areas that have over the years experienced cycles of building, declining occupancies, and recovery, appraisers can develop a feel for an appropriate estimate of unaccommodated demand.

Unaccommodated demand is generally estimated as a percentage of the accommodated demand for each individual market segment. The range for unaccommodated demand typically extends from 0% to 30% of accommodated demand. The upper end of this range would be appropriate for exceptionally strong markets where nearly every hotel is experiencing high levels of occupancy, many fill nights, and a large amount of turn-away demand. In good

hotel markets 5% to 10% is a reasonable level of unaccommodated demand. Since unaccommodated demand is difficult to quantify, a conservative estimate is usually warranted.

Unaccommodated demand is generally brought into the market analysis as accommodated demand at the point in time when there are sufficient new rooms available to absorb this form of latent demand. Care must be taken to ensure that the amount of unaccommodated demand converted into accommodated demand is justified by the number of new rooms opening in the market. The capacity (new rooms) available to convert unaccommodated demand into accommodated demand is called the *accommodatable latent demand*. This form of demand will be covered later.

Induced Demand

The second type of latent demand is called induced demand. Induced demand represents the additional room nights that will be attracted to the mar-

ket area for one or more specific reasons. Induced demand may be created by specific circumstances such as

- The opening of new hotels that offer new amenities such as extensive meeting and group space or specialized recreational amenities such as a golf course, ski slope, or health spa. These hotels are expected to attract a new market segment that does not currently seek accommodations in the subject's market area. For example, if a new hotel with a 60,000-sq. ft. exhibit hall opens in a market where no similar facility exists, this hotel will probably be able to attract into the area groups that had previously selected hotels elsewhere.
- The aggressive marketing efforts of individual properties. Some major hotel chains have been able to bring new room nights into the market by aggressively marketing the properties they operate. Convention-oriented lodging chains frequently are able to rotate convention groups around to various

hotels within their system, thereby creating induced demand for any new hotels they operate.

- The opening of a new major demand generator such as a convention center, commercial enterprise, retail complex, transportation facility, or recreational attraction. The development of Disney World is an example of an induced demand generator. Airport expansions commonly induce new demand, particularly if the facility develops as a major hub for many airlines.

Induced demand can generally be traced to one or more specific factors, so quantifying these additional room nights is somewhat easier than estimating unaccommodated demand. The procedure used is similar to the build-up approach based on an analysis of demand generators. The appraiser evaluates each generator of induced demand to determine the number of room nights that will be attracted to the market area. Induced demand may either enter the market all at once or gradually over one or more years.

Induced demand is occasionally factored into the market on a temporary basis. Examples of this scenario involve one-time or cyclical events hosted by a given lodging market, such as the Olympics and the Super Bowl. Movie crews in town for extended shoots are another common example of temporary induced demand. In such cases, appraisers must take care to factor the associated demand levels in and out of the projections at the appropriate time.

Unaccommodated demand and induced demand combined equal the total latent demand for the market area. The following case study demonstrates the procedures for estimating the unaccommodated and induced demand for the subject's market area.

CASE STUDY

Estimate Latent Demand

Analysis of the subject's market area indicates the presence of latent hotel demand composed of both unaccommodated and induced room night demand. To show the true depth of the market, latent demand must be quantified.

The composition of demand in the market, area-wide occupancy, the number of fill nights, and the amount of turned away demand all indicate that the local market has a certain amount of unaccommodated room night demand.

The composition of local hotel demand shows a definite commercial orientation (58% of total demand), which suggests a heavy influx of room nights on Monday, Tuesday, Wednesday, and Thursday with a significant drop off on Friday, Saturday, and Sunday. Moreover, the groups currently using the ar-

ea's lodging facilities are business-related and tend to meet Monday through Thursdays rather than on weekends. Given these findings, more than 80% of the local room night demand is likely to need accommodations during the week. This demand pattern could produce an overflow condition and create unaccommodated demand.

The area-wide occupancy calculated from accommodated demand was 72% in the base year. Considering the depth of the commercial market and the Monday through Thursday orientation of the demand, 72% occupancy reflects a healthy hotel market. This observation further supports the presence of unaccommodated demand.

To quantify the amount of unaccommodated demand, the number of commercial and meeting and group fill nights must be estimated. Assuming that 90% of the base year's commercial demand and 80% of the meeting and group demand are concentrated Monday through Thursday, a total of 364,338 room nights are demanded this time period:

Commercial demand	302,298	x	90%	=	272,068
Meeting demand	115,338	x	80%	=	<u>92,270</u>
Total					364,338

Dividing this Monday through Thursday night demand by the 208 times per year that this time period reoccurs results in a demand of 1,752 rooms per average day ($364,338/208=1,752$). Since the market had a HARC of 1,962 during the base year, it is reasonable to assume that fill nights occur often. If the fill nights occur Tuesday and Wednesday nights and Monday and Thursday capture the remaining demand, the following table shows the occupancy calculation for Monday and Thursday nights:

Total Monday-Thursday demand					364,338 RN
Assume sellout Tuesday & Wednesday					
2 days x 52 weeks x 1,962 rooms					204,048 RN
Demand remaining Monday & Thursday					160,290 RN
Average occupancy Monday & Thursday					
				<u>160,290</u>	= 78.6%
				204,048	

Based on these calculations, it is reasonable to assume that the local market experiences at least 104 fill nights (Tuesday and Wednesday) per year as a result of the concentration of commercial and meeting and group demand. If this should occur as demonstrated above, Monday and Thursday nights would still achieve occupancies averaging just below 80%. This estimate of fill nights was confirmed by manager interviews conducted during fieldwork.

Most of the estimated unaccommodated demand comes from the commercial and meeting and group segments. Because the market has a relatively strong leisure orientation as well, a certain amount of unaccommodated leisure demand is also anticipated.

Based on the preceding analysis, the unaccommodated demand estimates shown in Table C.S.3.9 were made for the subject market area.

Unaccommodated demand for the commercial and meeting and group segments amounts to an average of 288 room nights per night for the 104 Tues-

day and Wednesday nights per year. This number seems reasonable considering the size of the market and was supported by data accumulated during fieldwork.

Unaccommodated demand for the leisure segment is concentrated during the summer months when vacationers travel through the area en route to nearby Manhattan attractions and nearby beach resorts.

The opening of the proposed Sheraton Hotel is expected to create induced demand in the meeting and group segment. Because of the extensive meeting facilities contained in this property and the strong image that the Sheraton brand brings to the meetings market, additional room nights of demand will be attracted to the area solely as a result of the new hotel's openings. In addition, the county's convention center has recently been renovated and expanded to accommodate larger groups. A new rooms tax dedicated to the local convention bureau should enable this agency to market its facility to a broader group of meeting and group users. Based on discussions with the Sheraton developer and representatives of the convention bureau, it is antic-

ipated that approximately 15,000 room nights of additional meeting and group demand will be attracted to this market each year.

The induced demand that will be attracted to the local market over the next several years is reflected in the phase-in schedule shown in Table C.S.3.10. Note that the induced demand is not expected to enter the market until the third projection year, the projected date of opening for the Sheraton Hotel.

Quantify Total Room Night Demand

The last step in the build-up approach based on an analysis of lodging activity is to total the area's existing and potential room night demand. This demand includes both accommodated and latent demand, which were identified in the preceding steps. The following case study will show how this demand is quantified.

CASE STUDY

Quantify Total Room Night Demand

Based on the data developed during the previous steps, the total potential room night demand for the subject market area in the base year can be calculated. This procedure is identified in Table C.S.3.11.

Build-up Approach Based on an Analysis of Demand Generators

In markets where there are relatively few demand generators, it is sometimes appropriate to quantify the existing hotel room night demand by interviewing demand generators. As markets become more complex and the numbers of generators increase, it becomes more difficult to identify all the demand

generators and conduct an accurate survey. Most markets are too complex to rely solely on this approach, so the analysis of lodging activity is usually emphasized and selective demand generator interviews are used to determine the characteristics of the transient demand.

The build-up approach based on an analysis of demand generators is typically performed in three steps:

1. Identify generators of transient visitation.
2. Interview or survey selected demand generators and identify the characteristics of the demand.
3. Quantify room night demand.

Each step in the analysis of demand generators will be discussed. Then all three steps will be illustrated as the process is applied to the case study property.

Identify Generators of Transient Visitation

The generators of transient visitation are identified when the final market area is defined. There may be many possible sources of transient visitation and every effort should be made to compile a complete list. The following methods can be used to identify generators of hotel demand.

1. Interview local hotel and motel managers to determine the sources of their occupancy. Ask for a percentage breakdown on the types of customers (i.e., commercial, convention, leisure) and try to learn the names of specific firms or groups that use the facility on a regular basis.
2. Obtain a directory of local businesses and identify those with regional or national operations that are likely to attract out-of-town customers, suppliers, vendors, or company representatives.

3. Obtain statistics pertaining to area visitation from the local convention and visitors bureau. Request a list of recent conventions and meetings that used local hotelries. Determine if the primary market area has any popular tourist or vacation attractions. Visitor counts and projections can be helpful if their reliability can be verified.
4. Visit car rental agencies, especially those at local airports, to determine which firms regularly rent cars. This information will indicate which area businesses attract out-of-town visitation. These agencies also can supply information about which hotels are popular among their clients.
5. Drive around the area looking for concentrations of out-of-state cars in industrial parks, office complexes, government centers, regional hospitals, and other facilities. The parking lots of local hotelries also contain many market indicators. Do most of the cars belong to out-of-state or in-state residents? Do they belong to businessmen traveling

alone (clean and neat) or families on vacation (with luggage, games, and roadmaps)? A late-night parking lot count can indicate a highway motel's occupancy, assuming one vehicle per room. Even more important, a parking lot count can indicate the relative competitiveness of area hostels if all are surveyed on the same night. One night's count is not necessarily indicative of annual occupancy, so additional factors should also be considered.

6. Interview with chamber of commerce officials, visitor information center employees, taxi drivers, gas station operators, and restaurant managers. These individuals are often helpful in identifying potential sources of transient visitation. The local building department can also provide information on proposed projects and changes in highway patterns.

Identifying the prime generators of demand within a given market area is relatively simple. When the survey is completed, the list will probably con-

tain one or more of the following: businesses -- office buildings, industrial parks, research facilities, manufacturing plants; government centers; airports; convention centers and conference facilities; colleges and universities; tourist attractions; vacation and recreation areas; parks and scenic areas; hospitals; sports attractions; casinos; military bases; trade and professional associations; convenient highway stopping points; regional shopping centers; and special events such as state fairs and parades. For market areas with many demand generators, the list should rank the sources in order of their estimated potential to generate demand. Prime sources with the greatest ability to attract out-of-town visitors should be researched first so that the appraiser can conduct a thorough analysis.

Interview or Survey Selected Generators

The most important step in the survey process is quantifying the total demand into measurable units -- i.e., room nights. By estimating the number of room nights attributable to each generator of visitation in the subject market area, the total micro demand can be determined.

In addition to quantifying total demand, the appraiser's survey should outline the general characteristics of the travelers who make up the potential market. The following list indicates factors that can help define the demand and may be useful in designing a proposed hostelry.

Demand Factors

- Number of nights per stay
- Number of people per room
- Periods of use during the year

Definition of seasonality

Fluctuations in use during the year

Fluctuations in use during the month

Fluctuations in use during the week

- Price willing to pay

- Food, beverage, entertainment, and telephone usage

Design Factors

- Number of people per guest room

Space requirements

Bed requirements

Bathroom requirements

Closet and storage requirements

- Use of guest rooms for purposes other than sleeping (i.e., meetings, entertainment, interviewing, or displays)

Space requirements

Furniture and layout

Lighting and decor

- Restaurant and lounge facilities

Space requirements

Decor, menu, and price

Kitchen equipment

Staffing

- Meeting and banquet facilities

Space requirements

Types of configuration

Special equipment

- Methods of travel

Parking requirements

Entrance, loading, and baggage requirements

- Recreational facilities

The list of demand generators must be analyzed in order to select market-surveying techniques that will be most effective in quantifying potential demand and defining specific traveler characteristics. Research techniques may include personal and telephone interviews, letter questionnaires, and use of available data and surveys.

Regardless of the techniques chosen, it is most important to locate and question the individuals most knowledgeable on the subject. For a hotel demand study, these people are typically those who make hotel reservations -- e.g., secretaries, executive transfer departments, travel departments, personnel and recruitment departments, convention and visitor bureau placement departments, tour operators and travel agents, airline flight service and customer relations departments, and college alumni and athletic offices. The individuals who actually book reservations for out-of-town visitors are referred

to as bookers. Purchasing agents and buyers, executives, receptionists, college admissions officers, and park rangers who meet out-of-town visitors might also be questioned. Security departments, convention and visitor bureau registration and research departments, and hospital admissions departments who control visitation data are other good sources. People who see and come in contact with out-of-town visitors are called seers.

Personal interviews produce the most reliable data, but they are usually very time-consuming. In areas with many sources of visitation, personal interviews can be limited to those with the greatest potential for generating room nights. A checklist of essential items to cover should be devised and interview time should be limited to five or 10 minutes. Use appointments only if an initial drop-in visit produces no results.

Some of the key questions typically asked during an interview include

-
- How many out-of-town visitors do you average each week, month, or year?
 - What is the purpose of the visitation?
 - How long do the visitors stay?
 - Are the visitors visiting any other demand sources in the area?
 - Where are the visitors staying now?
 - What rates are they willing to pay?

Once these questions are answered, more detailed questions should be asked to identify some of the characteristics of the market. The demand and design factors listed previously can be used as a guide. The interviewer should always ask if there are any other people in the organization who have contact with visitors. The interviewer should specify the purpose of the interview because the more information the interviewer is willing to provide, the more information he or she will receive.

Telephone interviews are less time-consuming, but they rarely produce the same quality of data. Less important demand sources can be interviewed over the phone and later seen personally if greater potential is discovered.

Letter questionnaires are useful for mass surveys when hundreds of identifiable demand generators are involved. A short, simple form that can be completed in less than five minutes usually yields the best results. It is important to contact the person best suited to answer the questions when using this type of survey. A brief letter explaining the purpose of the survey should accompany each questionnaire. A greater response will be obtained if someone who is well known in the community signs the letter. A self-addressed, stamped envelope for returning replies must be enclosed.

Occasionally various groups and municipal agencies compile data pertaining to local transient demand. These data are normally part of larger studies conducted in connection with urban renewal or redevelopment projects, proposed convention centers, and master development plans. Some organizations that may perform such market surveys include chambers of commerce,

convention bureaus, municipal planning departments, redevelopment agencies, financial institutions, and utility companies. Data obtained from these sources should be verified. If the information is usable it can serve as a good starting point for defining the local transient market.

All major generators of transient visitation should be surveyed with a personal or telephone interview or a mailed questionnaire. In market areas with many secondary generators of visitation, however, these techniques may not be practical. Time restraints and the inability to identify smaller generators often necessitate some form of sampling.

Quantify Room Night Demand

Sampling is a market research procedure in which conclusions about a large population are drawn from a thorough analysis of a representative portion of the population. Properly applied, sampling generally yields more accurate

results than complete surveys because more time can be devoted to correct interviewing and data collection techniques.

The key to good sampling is selecting the unit of comparison that best reflects the total market. For example, a frequently used measure of potential commercial traveler demand is room nights per square foot of office space. Interviewing a representative sample of office space users and estimating how many out-of-town visitors are received over a given period of time can be used to develop a unit of comparison. The number of visitor room nights is divided by the total square footage of office space within the sample. Multiplying this factor by the amount of office space within the market area produces an indication of the potential commercial demand. If necessary, adjustments can be made to avoid double counting of travelers visiting more than one firm.

Other units of comparison that may reflect transient visitation are population, employment, university enrollment, hospital beds, traffic counts, retail sales, and convention attendance. Many books have been written on correct sam-

pling and market research procedures. Although every market area requires a somewhat specialized approach, three basic rules should be followed:

1. The sample must be representative of the total market.
2. Data and information from the sample must be factual and unbiased.
3. The units of comparison applied should reflect market behavior.

Analyzing demand generators provides an estimate of the total number of room nights available in the market area as well as specific information about the characteristics of the demand. The total potential demand must be divided among all the competitive lodging facilities before the market capture rate for the subject property can be estimated.

The build-up approach based on an analysis of demand generators is demonstrated in the following case study.

CASE STUDY

Identify Generators of Transient Visitation

Local chamber of commerce officials, county planners, and various hotel and real estate professionals were interviewed to identify the generators of transient visitation in the market area. Most of the major businesses and attractions in the area that attract overnight visitors are described in the following list. The generators can be located by number on the area map.

1. Office park. A 2,000,000-square-foot office park is located directly across Interstate 495 from the site of the proposed Sheraton Hotel. This fully developed and leased office park houses many regional sales and service departments as well as national firms.
2. Aerospace firm. This major aircraft component manufacturer has 3,500,000 square feet of building space and employs more than 15,000 people. It is situated one exit east of the subject, along Interstate 495.

3. Communications firm. The research division of a national communications firm is housed in a major office complex two miles north of the subject, off Route 110. It employs 10,000 people in a facility of more than 3,000,000 square feet.
4. Aircraft engine producer. This jet engine manufacturer currently employs 5,000 people and occupies more than 2,000,000 square feet of building space. The firm is located approximately three miles south of the Sheraton site, off Route 110.
5. High technology research park. An office park of 25 communication-oriented research facilities owned by major manufacturers is located adjacent to the Sheraton site, directly to the south. The park is fully developed and contains approximately 1,000,000 square feet of laboratory and office space.
6. Industrial park. This established industrial park houses 100 small and medium-sized manufacturing firms that perform subcontracting work for the aircraft engine producer (4). Located one mile east of the proposed Sheraton, on a service road next to Interstate 495, the industrial park has some excess land for future expansion. The current total building area of the firms located in the park is approximately 2,000,000 square feet.

7. Office district. A downtown-type office district with an inventory of 2,520,000 square feet of high-rent office space is located nine miles west of the subject property, next to an Interstate 495 interchange. The businesses occupying space in this office district are primarily financial, legal, and insurance firms.
8. New industrial park. This new, 700-acre industrial park with approximately 200 acres currently developed is situated five miles east of the subject site, at an Interstate 495 exit. The park has 1,350,000 square feet of space still under lease, and favorable future growth trends are indicated.
9. Regional mall. Located on a secondary highway approximately five miles northeast of the proposed Sheraton site, this 75-acre regional shopping mall has 135 stores and 1,500,000 square feet of space.
10. State hospital. A 1,000-bed state mental hospital located eight miles southwest of the subject on a secondary highway generates some commercial visitation.
11. Convention center. The ten-year-old convention center recently expanded its exhibit space from 75,000 to 100,000 square feet of floor area. It is located on Route 110, near the subject site, just south of a nearby Hilton

Hotel. The convention center, used primarily for trade shows and local events, can accommodate up to 10,000 people.

12. Resort area. A beach resort area, which attracts vacationers during the summer months and weekend travelers during the rest of the year, is a 30-minute drive from the site of the Sheraton by car.

Survey Selected Generators

These 12 potential generators of demand indicate that the transient market is composed of commercial, meeting and group, and leisure travelers.

The commercial demand in the area uses lodging facilities five nights per week. Some commercial visitors arrive Sunday night to start work early Monday morning. Commercial demand is low Sunday night, then increases and remains fairly level Monday, Tuesday, Wednesday, and Thursday nights; demand drops off significantly on Friday and Saturday.

The meeting and group demand is generated primarily by the convention center and by several research-oriented firms that hold conferences and training sessions in the area. The bulk of this demand is felt during the fall, winter, and spring months; Sunday through Thursday are the peak convention days. Although commercial travelers rarely use lodging facilities on Friday or Saturday night, certain types of conventions prefer weekends and holiday periods when rates are typically lower.

The immediate area surrounding the proposed Sheraton has no tourist attractions. However, a summer beach resort approximately 30 minutes to the south draws a significant number of leisure travelers on weekends during the spring and fall and all week during the summer. Because this resort area is seasonal, there are only a few, small, family-owned motels near the beach. Consequently, many overnight visitors must find accommodations further away. Since primary access to the beach resort is via Interstate 495 and Route 110, many vacationers stay in the various hotels surrounding the subject site. The leisure demand generated by this resort area tends to be negatively correlated to the commercial and meeting and group patronage attracted to the area's business and convention center. Local lodging facilities benefit from this situation, which tends to create level occupancy throughout the year.

The subject market area has a number of primary generators of transient demand, many of which comprise secondary generators such as office parks that house many different tenants. It has therefore been determined that the build-up approach based on an analysis of demand generators is not an appropriate method for quantifying the existing transient demand. The demand generators identified have been analyzed, however, to assess the nature of the transient demand and the characteristics and desires of local visitors. Personal interviews, telephone surveys, and letter questionnaires were used to gather information from several demand generators. A summary of the appraiser's findings follows.

Commercial Demand

- Aerospace firm (2). The security department of this large manufacturer provided the best information on transient visitation. Based on an analysis of the visitor registration log over a 24-month period, the appraiser estimates that the aerospace firm attracts approximately 110 outside visitors per week; these visitors stay at local hotels for an average of two

nights per visit. Over the past several years, this type of visitation has remained fairly stable.

- Communications firm (3). The bulk of the outside visitation to this firm consists of meeting and group demand. Most of the transient commercial visitors are out-of-town suppliers, salespeople, and manufacturers' representatives. Many of these visitors pass through the firm's purchasing department.
- Aircraft engine producer (4). This firm recently moved into the area and maintains few records on outside visitation. Before constructing the plant, however, the company had to submit to the county an economic impact study outlining the firm's potential benefits to the area. One of the benefits cited was hotel patronage from visitors to the plant. A footnote to the study stated that the company's visitation estimate was based on visitation histories from the firm's other plants throughout the United States. According to this study, approximately 12,850 room nights would be generated during the first year, or an average of 247 room nights per week. This figure is expected to increase by approximately 5% per year.
- Office district (7). A list of office district tenants was compared to a list of the tenants occupying the office park (1). The office district has more local firms (i.e., accounting and legal firms) which would probably not

generate as much visitation as the regional and national firms with offices in the park.

- New industrial park (8). The tenants occupying the new industrial park were more national in scope than those at the established industrial park (6).
- Regional mall (9). Many tenants of the regional mall are national retailers. Home office personnel, who take inventories and prepare audits, visit each store on a regular basis.
- State hospital (10). State officials visit this property weekly to perform various administrative functions.

Meeting and Group Demand

- Convention and visitors' bureau. The primary source for information on the meeting and group segment was the local convention and visitors' bureau, which is responsible for booking and tracking this type of visitation.

- Discussions with the director of the local bureau revealed that the area has three main generators of meeting and group demand: the convention center (11); the communications firm (3), which sponsors training sessions; and the research park (5), which holds seminars.
- Convention center (11). The ten-year-old convention center has been operating at a stable level for several years. In the past, efforts to attract larger conventions were generally unsuccessful because exhibit space was limited. The renovation and expansion of this facility was recently completed, and is expected to contribute to meeting and group demand growth in future years.
- Research park (5). While assessing the commercial demand generated by the research park, the appraiser discovered that strong meeting and seminar demand was created by this concentration of research-oriented businesses.

Leisure Demand

Resort area (12). Discussions with the local visitors bureau in the resort community showed interest in the area to be growing because of the re-

cent development of several resort amenities such as an 18-hole public golf course, several miniature golf courses, a bowling alley, an amusement park, and an aquarium. These amenities not only attract additional visitors to this destination, they also provide incentive for visitors to extend their stay, creating more room night demand.

Forecasting Room Night Demand

Through the analysis of lodging activity and/or the analysis of demand generators, the appraiser has quantified the total room night demand in the current market. This existing demand consists of one or more of the following components: accommodated demand and latent demand, the latter consisting of unaccommodated demand and induced demand.

Because a market study and valuation require the appraiser to look into the future, the existing room night demand must be forecast over the projection

period. Future hotel demand will increase, decrease, or remain level. The direction and rate of change is estimated by analyzing various economic and demographic indicators.

An excellent context for future demand growth projections may be provided by historical demand growth trends for the lodging market in question. Smith Travel Research (STR) is the leading independent data consulting firm serving the lodging industry. Located in Hendersonville, Tennessee, STR offers composite demand, supply, occupancy, and average rate trends for a specified group of hotels. The trends are generally available over five- and ten-year periods, but may be customized. As for the population of hotels, nearly all the nationally-recognized hotel chains report their data directly to STR. In advance of placing a request, STR will provide a list indicating which hotels in a specific area (county, city, zip code, etc.) have reported their data historically. The user may then select the hotels it wants to include in the survey. STR maintains some base reporting rules in order to prevent a user from isolating the data of any single hotel or a chain of hotels. STR may be reached at (615) 824-8664, or on-line at www.str-online.com. The demand

trends are particularly useful in the development of market demand projections.

Apart from STR data, demand projections are based on analysis of the various economic and demographic data gathered during fieldwork. Forecasts depend on how well various types of economic and demographic data reflect changes in hotel room night demand. Data that accurately mirror future trends in transient visitation are given greater weight in the appraiser's analysis. Since changes in hotel demand are generally tied to specific types of visitation, individual market segments --commercial, meeting and group, and leisure -- are analyzed. Table 3.23 shows the three primary market segments and the types of data that have some propensity to cause changes in hotel room night demand. Other market segments, such as extended stay demand, generally have a profile or character that aligns with one of the three primary segments.

Commercial hotel demand is greatly influenced by trends that relate to business activity such as office space absorption; employment (particularly

wholesale and retail trade, financial, insurance, and real estate, and services); new businesses moving into the area; and airport enplanements. Population growth is not a strong indicator of changes in commercial demand, but it usually sets the lower limit for potential growth in commercial visitation. For example, if an area's population is expected to grow at an annual compounded rate of 1.5%, it is likely that commercial hotel demand will grow by at least the same rate. Other indicators may justify using a higher rate.

There are fewer indicators of meeting and group demand, and a number of these indicators provide only an indirect basis for projecting trends in hotel demand. Convention center activity, particularly usage that generates visitation from outside the area, is probably the best indicator of meeting and group demand. The commercial activity reflected in employment trends and office and industrial space absorption provides an indirect indication of meeting and group demand because many meetings are the result of business activity. Meeting and group demand is also created through the sales efforts of individual hotels; this type of induced demand was discussed in a previous section of the text.

Very few indicators of leisure demand are available. Visitor statistics, particularly in resort areas, can provide some good indications of leisure demand trends and attendance data for area tourist attractions are also useful.

Changes in hotel demand are generally projected by market segment for periods ranging from three to 10 years. In forecasting lodging demand, it is wise to keep the projection period as short as possible. The annual compounded percent of change should reflect the most probable trend in hotel room night demand. Many hotel market studies and valuations seem to project continuous growth in lodging demand, but demand trends do not have to be positive, nor does growth have to increase by the same percentage each year.

The forecast direction and rate of change in hotel room night demand are generally applied to both accommodated and unaccommodated demand components, which tend to move in tandem with one another.

Changes in induced demand are not usually related to projected changes in the accommodated and unaccommodated components of demand. Rather, induced demand depends on the latent demand characteristics exhibited by the specific demand generator. For example, if a large convention hotel is expected to open in a market enabling the area to attract major groups that previously could not be accommodated, the growth and ultimate size of this induced demand will reflect the marketing ability of the hotel operator as well as the hotel's capacity to handle these groups. Depending on the size of this convention hotel, the additional demand will usually be expected to increase over a period of time and then stabilize as the hotel approaches its capacity. Although the growth in induced demand is generally not dependent on the growth in the area's convention demand, the surrounding meeting and group market should be given some consideration in quantifying induced demand.

CASE STUDY

Forecasting Room Night Demand

Table C.S.3.12 identifies the market-wide demand and supply trends provided to the appraisers by Smith Travel Research for the subject lodging market. The “Trend Report” pertains to all suburban Long Island hotels. Because of the breadth of this survey, the supply and demand figures do not align with the market-wide data otherwise identified in this case study. Nevertheless, the general trends contribute to the context for this analysis. Between 1990 and 1999, demand among suburban Long Island hotels increased at an average annual compounded percentage rate of 3.2%, with the rate of growth ranging from 4.0% to 6.9% per year between 1994 and 1999.

Otherwise, the basis for the room night demand projection is based upon the local economic and demographic trends. Table C.S.3.13 summarizes the various types of data accumulated in the field and analyzed in house. It indicates the date of the data, whether actual (historic) or projected, and the average annual compounded percent of change observed over that period.

Based on these data, the following analysis was undertaken to estimate the demand growth rates to be used in projecting future hotel room night demand for the subject market area:

Commercial Demand

Historic economic and demographic trends in the subject market area show strong growth. The local population has grown at an annual compounded rate of 2.2% over the past ten years; commercial indicators for the FIRE, trade, and services employment sectors have increased 2.5%, 1.6%, and 4.0%, respectively. Airport enplanements were strong at 3.8% and new business showed an annual gain of 2.3%. Future projections suggest continued growth, but probably not at the levels previously experienced. Office space, industrial space, and retail space absorption is expected to grow at 3.1%, 2.9%, and 3.3%, respectively. Population growth is projected to slow to 1.7%, while airport enplanement growth will likely decelerate to 1.5%.

Based on this analysis, we have projected commercial demand growth of 5.00% in the first projection year, slowing to 4.0% in the second projection

year, and 3.0% in the third projection year. Commercial segment demand growth is expected to stabilize at 3.0% per year thereafter.

Meeting and Group Demand

Whereas the historical rate of meeting and group demand growth in the subject lodging market appears to have been realized at a rate of 1% to 2% per year, the recent completion of the convention center's renovation and expansion justifies the use of a stronger growth rate throughout our projection period. The convention center now features greater potential for attracting larger groups. Based on these considerations, we have projected annual meeting and group demand growth of 2.00% in the first projection year, 2.50% in the second projection year, and 2.75% in the third projection year. Meeting and group demand growth is projected to stabilize at 2.75% per year thereafter.

Leisure Demand

Visitor counts in the resort area south of the subject site have grown at an annual rate of 1.0% for the past five years. According to the local visitor's bureau, the upgraded amenities at the resort are having a positive impact on overnight tourist visitation. As such, an annual leisure segment demand growth factor of 1.50% has been applied for purposes of this analysis.

Table C.S.3.14 shows the projected growth in hotel room night demand for each of the three market segments.

These compounded annual growth rates are applied to both accommodated and unaccommodated room night demand. Induced demand is projected to grow to 15,000 room nights in the fifth projection year and then remain level for the remainder of the projection period. Table C.S.3.15 shows the projected room night demand for each of the three market segments for the next five years.

Now the micro demand analysis for the subject market area is complete. The next component of the market study is an analysis of the competitive lodging

supply, which will form the basis for allocating the total area-wide room night demand among the competitive hotels in the market.
