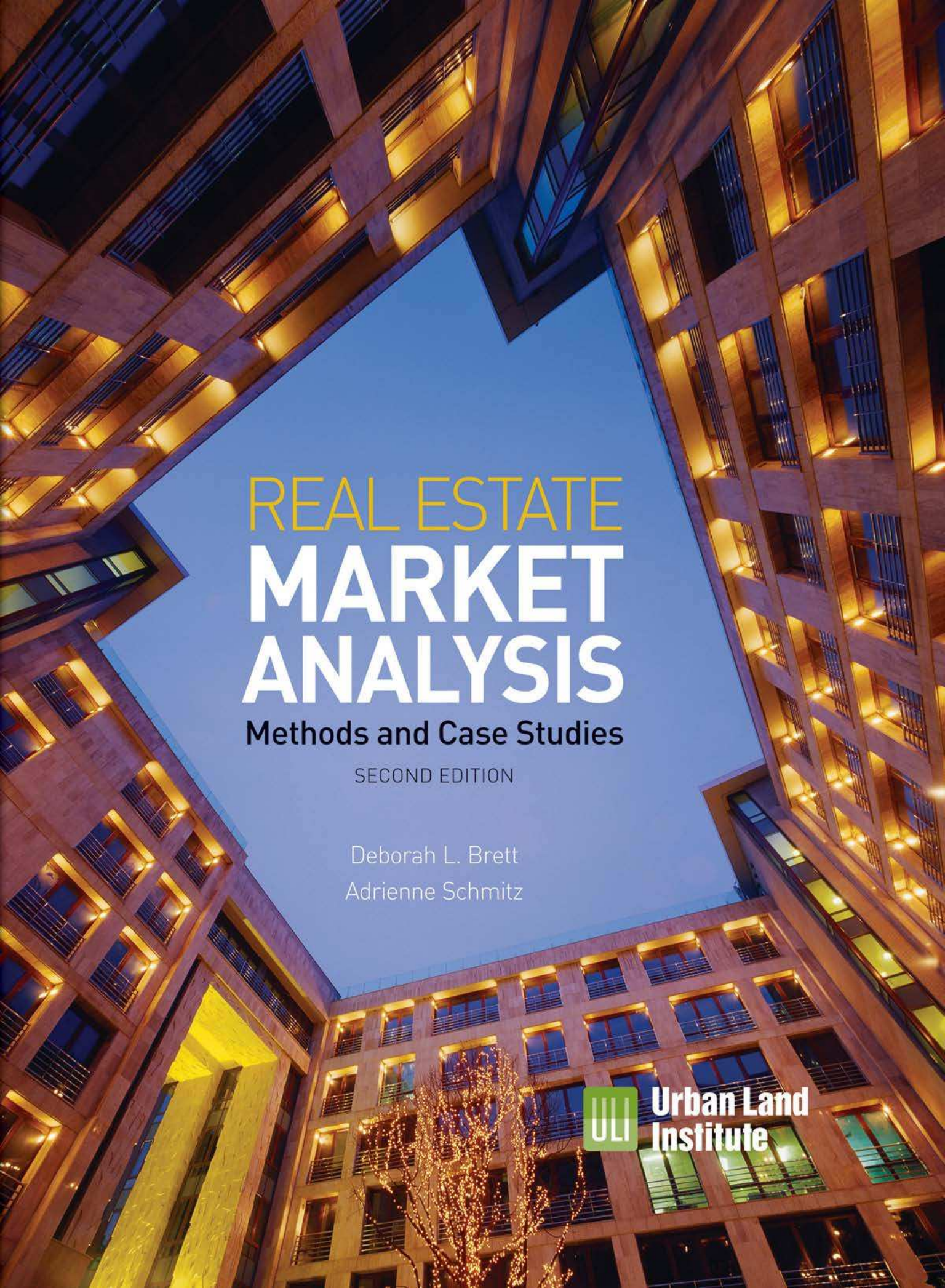

REAL ESTATE MARKET ANALYSIS

Methods and Case Studies

SECOND EDITION

Deborah L. Brett
Adrienne Schmitz

ULI Urban Land Institute

REAL ESTATE Market Analysis

METHODS AND CASE STUDIES

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About the Urban Land Institute

The mission of the Urban Land Institute is to provide leadership in the responsible use of land and in creating and sustaining thriving communities worldwide. ULI is committed to

- Bringing together leaders from across the fields of real estate and land use policy to exchange best practices and serve community needs;
- Fostering collaboration within and beyond ULI's membership through mentoring, dialogue, and problem solving;
- Exploring issues of urbanization, conservation, regeneration, land use, capital formation, and sustainable development;
- Advancing land use policies and design practices that respect the uniqueness of both built and natural environments;
- Sharing knowledge through education, applied research, publishing, and electronic media; and
- Sustaining a diverse global network of local practice and advisory efforts that address current and future challenges.

Established in 1936, the Institute today has more than 32,000 members worldwide, representing the entire spectrum of the land use and development disciplines. ULI relies heavily on the experience of its members. It is through member involvement and information resources that ULI has been able to set standards of excellence in development practice. The Institute has long been recognized as one of the world's most respected and widely quoted sources of objective information on urban planning, growth, and development.

Urban Land Institute
1025 Thomas Jefferson Street, N.W.
Washington, D.C. 20007-5201

Project Staff

Dean Schwanke
Senior Vice President, Publications

Adrienne Schmitz
Senior Research Director

James Mulligan
Managing Editor

Lise Lingo
Manuscript Editor, Publications Professionals LLC

Betsy VanBuskirk
Creative Director/Cover Design

Book Design and Layout
Susan S. Teachey, On-Q Design Inc.

Craig Chapman
Director, Publishing Operations

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Primary Authors

Deborah L. Brett
President
Deborah L. Brett & Associates
Plainsboro, New Jersey

Adrienne Schmitz
Senior Research Director
Urban Land Institute
Washington, D.C.

Contributing Authors

Andrew Angeli
CB Richard Ellis Investors, LLC
Los Angeles, California

Marta Borsanyi
The Concord Group, LLP
Newport Beach, California

John Chang
Marcus & Millichap
Phoenix, Arizona

Margarita Foster
Fulton Research, Inc.
Fairfax, Virginia

Aaron N. Gruen
Gruen Gruen + Associates
Deerfield, Illinois/San Francisco, California

H. Blount Hunter
H. Blount Hunter Retail & Real Estate Research Co.
Norfolk, Virginia

John Keeling
Valencia Group
Houston, Texas

Valerie S. Kretchmer
Valerie S. Kretchmer Associates, Inc.
Evanston, Illinois

Adam E. Seidman
The Concord Group, LLP
Portland, Oregon

Margaret B. Sowell
Real Estate Strategies, Inc./RES Advisors
Paoli, Pennsylvania

Reviewers

Elizabeth M. Beckett
Real Estate Strategies, Inc./RES Advisors
Paoli, Pennsylvania

Walter S. Bialas
Madison Marquette
Washington, D.C.

Joshua Kahr
Kahr Real Estate
New York, New York

M. Leanne Lachman
Lachman Associates, LLC
New York, New York

Sam Newberg
Joe Urban, Inc.
Minneapolis, Minnesota

Brian D. Sands
Economics Research Associates
Washington, D.C.

Diane Yep
C.V. Starr & Co., Inc.
New York, New York

About the Authors

Deborah L. Brett

Deborah L. Brett is a real estate and planning consultant for a wide range of public and private organizations, providing project-related market analyses. Areas of specialization include development planning, commercial revitalization, market-rate and affordable housing, mixed-use projects, and transit-oriented development.

In 1993, Brett formed Deborah L. Brett & Associates, based in Plainsboro, New Jersey. She previously served as senior vice president and director of consulting services at Real Estate Research Corporation in Chicago. In her 18-year career there, she directed major land use policy analyses for many government agencies. She also prepared development strategies and housing, retail, and office market analyses for private clients, including developers, lenders, investors, and nonprofit organizations.

Brett holds a master's degree in urban and regional planning from the University of Illinois at Urbana-Champaign. She is a longtime member of ULI and a frequent contributor to its publications. She cowrote two editions of *Global Demographics: Shaping Real Estate's Future* with M. Leanne Lachman in 2008 and 2009. With Adrienne Schmitz, she cowrote the first edition of *Real Estate Market Analysis: A Case Study Approach*, and has a been a contributor to three editions of ULI's *Real Estate Development: Principles and Practices*. Both books are used by real estate and planning programs at many universities. Brett is also a member of the American Institute of Certified Planners and Lambda Alpha, the real estate and land economics honorary society. She teaches online classes in residential and retail market analysis for Rutgers University's Bloustein School of Planning and Public Policy.

Adrienne Schmitz

Adrienne Schmitz is a senior research director at the Urban Land Institute, responsible for developing programs and publications on a variety of real estate topics. Schmitz was coauthor (with Deborah Brett) and project director of the first edition of *Real Estate Market Analysis: A Case Study Approach*, published in 2001. More recently, she was the primary author/editor of *Resort Development* and coeditor of *Regenerating Older Suburbs*.

She has written articles for *Urban Land* and *Multifamily Trends*, and served as a past editor-in-chief of *Multifamily Trends*. Schmitz has been a conference speaker and has been quoted in newspapers and periodicals, including *the Wall Street Journal*, *New York Times*, and *USA Today*. Before joining ULI, she was a market analyst, consulting with real estate developers and homebuilders. She holds a master's degree in urban planning from the University of Virginia.

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Preface

Like the first edition, this second edition of *Real Estate Market Analysis* was conceived as a practical guide for analyzing the market potential of real estate investment and development projects. Other textbooks on this topic have emphasized economic theory and mathematical formulas, but most practitioners combine data analysis with their understanding of subjective aspects of real estate. We place an emphasis on field work: seeing the subject property and its competition, talking to brokers and property managers, and understanding the needs and preferences of tenants and buyers.

The Urban Land Institute is known for its case studies, and we believe that case studies provide a good instructional tool for market analysis. We assembled a group of practitioners to write case studies that illustrate many of the product types discussed in the book: ownership and rental housing, resort residential, street retail, a neighborhood shopping center, office and warehouse buildings, a hotel, and a mixed-use development. These case studies are condensed versions of actual market studies that have been prepared for clients or in-house decision makers. In some cases, identities are changed to protect confidentiality. The case studies have been condensed from their original versions to provide as much instructive material as possible within the framework of a textbook. Actual market analysis reports are typically far more detailed and lengthy than the summaries provided here. Like all market studies, they depict conditions in a particular time and place, and do not necessarily reflect market conditions as this book goes to press.

This book is organized around real estate product types, with the first three chapters introducing the topic, discussing the basic approaches, and instructing readers on how to collect and organize data. Chapter 4 discusses the various types of residential development. Chapter 5 covers retail development and Chapter 6 covers office and industrial products. Chapter 7 discusses hotels and resorts, and Chapter 8 explains mixed-use projects. An appendix includes a glossary and a webliography. Throughout the book, considerable attention is given to providing information on data available from both public and private sector sources. Please note, however, that information providers change and their products evolve over time—especially information accessible through the internet.

This book is intended for students of planning, architecture, real estate, and business. It is also a useful tool for individuals starting out in real estate development or shifting to a different discipline within the real estate development field, or for those who just want to gain an understanding of real estate market analysis methods and information sources.

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METHODS AND CASE STUDIES

Baltimore's Inner Harbor has been developed and redeveloped to meet evolving market needs.
Courtesy of Greg Pease Photography

Chapter 1

Understanding Real Estate Market Analysis

Real estate market analysis provides guidance for the many decision makers—in both the private and the public sectors—involved in real estate development. It is an ongoing process that provides vital information during predevelopment, acquisition, development, marketing, and disposition of a property. The goal of market analysis is to minimize the risks to, and maximize the opportunities for developers, investors, lenders, and public sector participants. Good market analysis combines timely and accurate information and nuanced interpretation of the data based on real-world experience. Although market studies are filled with data, interpreting the data takes experience, and drawing conclusions from the data is more of an art than a science.

The word *market* can be used in a variety of ways. Businesspeople usually use the word to mean the various ways of grouping customers, including geographic location (the Pacific Northwest, the Midwest), demographic profiles (young urban professionals, empty nesters), and product types (family restaurants, high-fashion apparel). Economists refer to both buyers and sellers when describing markets in terms of supply and demand, while marketing professionals consider sellers as the client and buyers as the market.

In real estate, *product* refers to property type—apartment buildings, offices, warehouses, for example—which is further distinguished by locational attributes, size or layout, quality, interior design features, project amenities, services (those included in the cost and those that are optional), and prices or rents. Hotels are subdivided into luxury resort properties, downtown conference hotels, limited-service establishments and so on. Retail projects include regional malls, neighborhood strip centers, "power" or "lifestyle" centers, outlet malls, and urban street retail. The housing sector can be segmented by physical characteristics, into single-family detached or attached models or low-rise, mid-rise, and high-rise apartments, and by tenure: for sale or rental. Industrial properties include 36-foot-high warehouses, research laboratories, and modest "flex" space used for offices, light assembly, and storage. Narrowly defining the market segment helps fine-tune the analysis.

A project's architecture, construction materials, layout, and finishes all influence perceived quality. However, most types of real estate can be customized to some extent to meet the perceived needs and wants of the buyer or tenant. For-sale housing offers options, including upgraded appliance packages, a choice of facades, and bump-outs for additional space. Hotels offer rooms with different bed configurations. Office buildings typically offer a tenant improvement allowance to a company that is leasing new space; tenants may opt to spend more.

Most rental property types offer standard tenant services (building management, maintenance of common areas, security, janitorial). In today's market, where technological features are important amenities, builders will incorporate Internet and cable television connections and sophisticated video security systems in their plans. Enclosed shopping malls and town centers typically provide joint marketing and promotional services for all the tenants, with the cost passed through on a pro

rata basis. Office buildings, apartment complexes, and hotels offer an array of concierge services, exercise facilities, meeting space, and social activities. Housing for seniors may offer optional meals or maid service, along with a variety of group activities. Business hotels often include shops, restaurants, and bars; at a minimum, they will have a breakfast buffet area. Many of these services provide additional income to management. All of these "extras" need to be considered when evaluating the strengths of competitive properties.

Market analysis forms the basis for decisions regarding location and site, project size, design and quality, features and amenities, target audience, pricing, and phasing. Although market analysis examines demographic trends and projects sales, rents, vacancies, and absorption, qualitative insights are increasingly important. Characteristics such as how certain market segments perceive a themed retail center or what design features appeal to homebuyers in certain communities are being examined through surveys, psychographic research, focus groups, and cluster analysis.

A strong overall market does not necessarily equate to a good opportunity for development. Neither does a weak market mean that a good idea cannot be implemented. In other words, a good market from the perspective of demand may be oversupplied; at the same time, a good concept may overcome the challenges of a low-growth market. Moreover, not all demand is driven by growth; there are many opportunities to replace obsolete properties—buildings that have deteriorated, are poorly located, or no longer meet the needs of consumers. In-depth market analysis can reveal opportunities that may not be readily apparent. Poor implementation can undermine the most promising opportunities in any market, while even flawless implementation cannot redeem a bad idea. Understanding the market is a prerequisite to generating good development ideas.

What Is Real Estate Market Analysis?

Real estate market analysis is the identification and study of demand and supply. On the demand side are the end users—the buyers or renters of real estate (homebuyers, apartment tenants, retail stores, businesses seeking office or warehouse space, visitors needing hotel accommodations). On the supply side are competitors—both existing properties and those at various stages in the development pipeline.

Market analysis identifies prospective users of real estate, both buyers and renters, and their characteristics. Some product types appeal to a relatively narrow market niche—for example, a for-sale residential development that is targeted to active seniors who like to play golf. Others reach broad segments of the potential market—for example, a supermarket-anchored retail center that will be patronized by a large percentage of residents in adjacent neighborhoods. Location influences the target market. A neighborhood with a very desirable school district will draw families with young children. For childless households and empty nesters, the quality of schools will have little influence on the decision to rent or buy a home.

Analyzing competition helps a developer determine how to set prices or rents. Homebuyers will pay more for a home if it offers more desirable or up-to-date features or styling than another home. Tenants will be willing to pay the higher rents typical of a new building only if it has features, amenities, and locational attributes that are at least equivalent to those of established properties. Supply conditions also affect rents. If existing properties are experiencing high vacancy rates, prospective tenants may see opportunities to negotiate lower rents in older properties, thereby limiting the occupancy and income potential of a new building.

A market study can cover a single land use or multiple property types. With the growing popularity of mixed-use development, a single report can cover more than one use, each with a distinct geographic area from which prospective buyers or tenants will be drawn. A good example is a downtown high-rise apartment building with retail space on the ground floor. The target market for the apartments could include young adults from throughout the county or metropolitan area. However, the main source of patronage for the retail space would be nearby workers, with residents of the building providing secondary market support.

Depending on the type of project proposed, the geographic scope of a market study can be national or regional, but more often it covers a relatively small geographic area. The market area (or *trade area* for retail properties) is the geographic region

from which the majority of demand comes and where the majority of competitors are located. Market reports that cover an entire metropolitan area or report on countywide conditions help set the context for project-level decision making.

A market study of a product type that is narrowly focused will yield the most useful results. For example, a study of all hotels in a region is a good starting point for providing background information. But more useful data come from homing in on directly competitive properties in the same price and amenity categories.

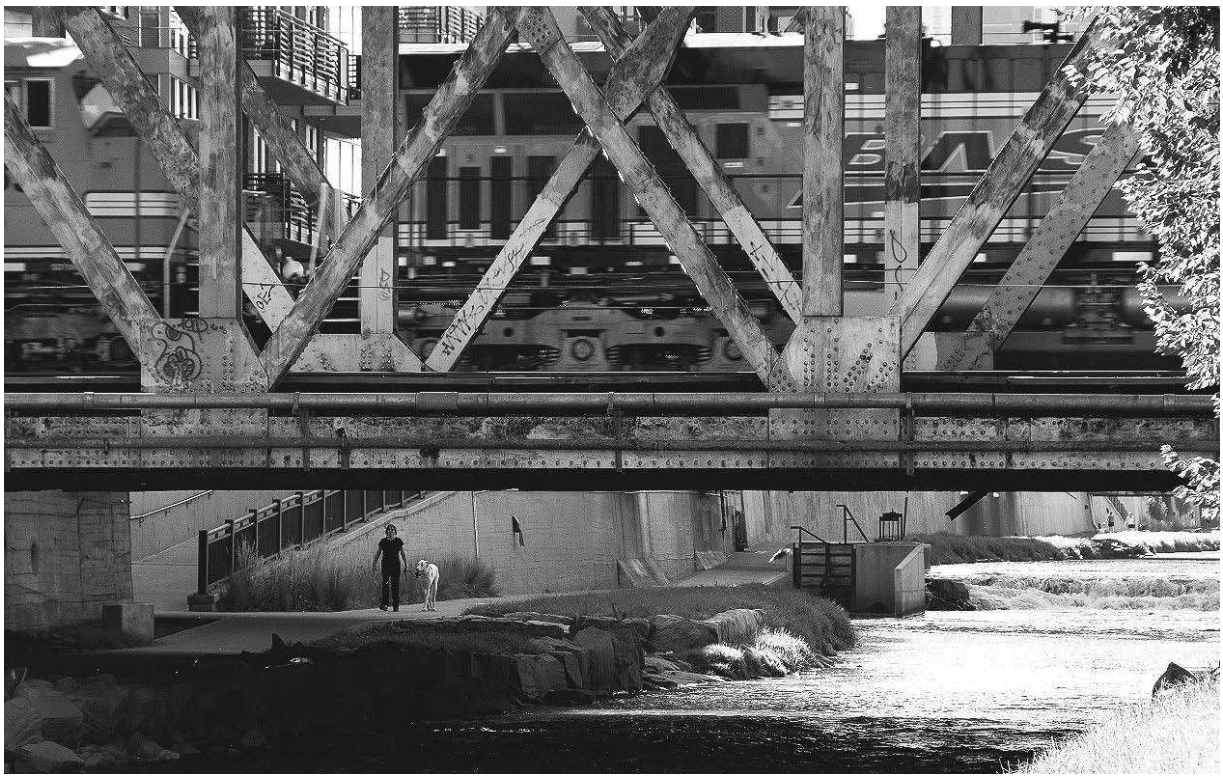
Most real estate market analyses examine both the market potential and the marketability, or competitiveness, of the proposed project. The market potential analysis examines aggregate data on demand and supply. Demand is, by far, the more difficult half of the equation. Projecting the strength of demand requires a mix of research, experience, and intuition.

Why Do a Market Analysis?

Just as there are many types of market studies, there are many reasons for doing them, from researching the potential of a site to refocusing a marketing effort.

- *Provide input for preliminary project planning.* Developers will often commission a market overview when deciding whether to exercise an option on a parcel or to proceed with land planning for a project. This type of market study is often a brief memo or report with supporting data. It analyzes the location's advantages and drawbacks, suggests the types of uses that would be appropriate, and provides general guidelines on the range of rents or prices that could be achieved given current market conditions. The developer can then decide whether it makes sense to hire a land planner to further examine how many units or buildings the site could accommodate, what traffic issues must be considered, and whether detailed environmental studies will be needed.
- *Generate inputs for financial feasibility analysis.* The results of the market analysis lead to the core assumptions that developers use in analyzing the financial feasibility of a project. The market study's conclusions regarding achievable rents and prices, the potential for additional income from project amenities or upgrades, and absorption and vacancy rate forecasts are important in determining projected cash flows and returns on investment. Developers can also predict what the impact on the bottom line will be if market conditions change.
- *Demonstrate the potential for a new product or an unproven location.* As the demographics of an area change, existing real estate products may not meet current demands. For example, an upscale retail center may be appropriate for an evolving neighborhood, even though high-end retail is untested in that area. Sometimes a developer can create a market for a new product type. A new style of rental apartment community can quickly render existing apartments obsolete in the minds of renters, thus creating an instant market for new, more stylish units. Today, "green" features enhance marketability; 20 years ago, environmentally sensitive construction techniques and materials might have been viewed as unnecessary or too costly. The notion of what constitutes the most desirable office space, shopping center, or housing can change overnight, forcing owners and managers to upgrade older buildings or lower their price points.

  Locations once considered remote, unsafe, or inaccessible can become desirable. Expanding transit service, creating usable open space, providing a new highway interchange or improving the perceived quality of public schools can change the attractiveness of available parcels, offering opportunities to savvy, pioneering developers.
- *Attract equity investors, debt financing, or government funds.* Partners, lenders, and other parties that are providing capital for a project need evidence that the developer's expectations are well founded, and that the proposed project can generate an attractive return, carry its debt load, and justify participation by government agencies. Investors and lenders will often commission their own market studies (separate from those submitted by the developer) as part of their due diligence requirements. These market studies may be conducted by staff members or by consultants.
- *Create a better, more marketable product.* Market studies can help fine-tune the product by



Denver's Riverfront Park is an urban mixed-use development that coexists with historic infrastructure such as a freight-train crossing over the Platte River. ***Courtesy of East West Partners***

revealing the characteristics and demands of the market. For large projects, the market analyst should be an active member of the developer's preconstruction team, which will also include land planners, civil engineers, architects, traffic consultants, financial analysts, public relations specialists, and attorneys. Give-and-take among these development professionals is likely to result in a more successful project.

- *Build community support for private development.* Few projects are able to proceed without some type of approval or assistance from a government agency, be it a variance in site planning standards, a change in permitted uses, or help in assembling land for a redevelopment project. When evaluating development proposals, local staff, elected officials, and consultants usually focus on issues of density, design, and traffic. However, developers who are requesting public subsidy for a project may be required to submit a market study and financial projections that demonstrate the need for government funding and conclude that the development has the potential to succeed.
- *Produce input for public sector housing or economic development planning.* Government agencies also monitor real estate markets. At a minimum, local governments have a vested interest in keeping abreast of trends that affect property tax collections. And they may aggressively seek to attract development, hoping to diversify their tax base, revitalize a sagging business district, or provide needed workforce housing. State housing finance and economic development agencies often require that market studies be done before they will issue revenue bonds or allocate tax credits.

How Does Market Analysis Fit Into the Development Process?

Market studies are important at many stages of development. At the earliest point, an analyst might be asked to look at one or several metropo-

litan areas for development potential (sometimes called *market screening*). The analyst will then focus on a submarket and finally seek out a site that is most appropriate for the proposed development concept. But given the limited availability of developable land today, it is more common for a developer to have an eye on a specific site and ask that the site be studied.

If the site proves viable, the market analyst might provide a basis for determining its value so that a purchase price can be negotiated. Or this valuation might be performed by an appraiser. Either the market analyst or the land planner will investigate the development climate of the jurisdiction, looking for answers to the following questions:

- Will the proposed project likely meet with public acceptance?
- Will it gain the necessary approvals in a timely manner?
- Are utilities readily available?
- Are there difficulties that might slow or hinder the development process?

Recognizing that entitlement authorities represent customers to be sold on a project, experienced developers have learned that it is useful to address local authorities' concerns from the onset. A series of negotiations often transpires as developers seek to tailor their projects to regulators' expectations. It is far better to identify and address community concerns early in the project approval process than to face an anxious audience in a public hearing. Elected officials are much more comfortable issuing approvals when the electorate is at ease with a project.

Although market analysis is a crucial part of the initial feasibility study for a real estate project, market conditions come into play throughout the project design, approval, construction, sales or leasing, and management stages. Once the project is developed, a market analyst might be asked to evaluate the project's performance and compare it with earlier forecasts. It is very common for market analysts to be consulted for repositioning strategies after a project is up and running and the developer realizes that absorption is not meeting projections. Property managers continually monitor their competitors, checking to see how occupancy has changed, whether rents have moved up or down, and using new information to reposition the project as change occurs.

Who Uses Market Analysis?

Developers cannot rely solely on instinct or even past experience to decide what to build or to assure prospective lenders that a project will be successful. A rigorous market study early in the process stimulates development ideas, improves initial concepts, and serves as a device to control risk. However, developers are not the only players who benefit from market analysis. Research may be undertaken for the benefit of the investor, the lender, and the community whose well-being will be affected by the proposed project.

Developers

Real estate developers are probably the most frequent users of market studies, especially if they continue to own or manage their buildings. Market analysis is used during the predevelopment process; reports are often updated when applying for construction financing and again when sales or leasing efforts are underway. A good market study helps a developer

- determine whether a location is suitable for development or choose among alternative locations;
- identify a product or mix of products that best meets the demands of the market;
- understand existing and potential competition, and evaluate their advantages and disadvantages in relation to the proposed project;
- identify the nature and depth of demand;
- provide guidance for land planners and architects, offering input for initial concepts and later refinements;
- suggest project pricing, sizing, and phasing;
- generate key inputs for cash flow analysis in support of loan applications or equity syndication;
- persuade elected officials and government agency staff to provide entitlements, financial incentives, or utility services to a proposed development;
- devise a marketing plan, by identifying market niches or prospective buyers or renters and suggesting how to reach them; and
- learn why a completed product is not selling or leasing as expected.

Government Officials

As suggested earlier, government officials may ask developers to provide a market study as part of the approval process, or they may commission their own studies from either their staff or consultants. The scope of a public sector real estate market study can cover conditions in an entire metropolitan area or county, or it can be focused on a specific neighborhood, industrial area, business district, or proposed development site. An example of a metropolitan area–wide study can be seen in the housing market reports issued by the U.S. Department of Housing and Urban Development (HUD). In some cases, a municipality or authority will commission a market study for a specific development proposal; the government may actually hire the consultant, with the developer paying the fee. Or the developer will hire the consultant, with a scope of services approved by the government.

Public officials use market studies to

- better understand community- or region-wide housing demand or the reasonableness of a proposed economic development strategy;
- identify affordable housing needs and possible locations where new housing construction should be encouraged;
- comply with state and federal grant requirements;
- provide support for redevelopment plans;
- review requests for zoning changes or expansion of utility service areas;
- calculate the impact of new housing on schools;
- determine the effects of new commercial development on parking or traffic conditions in an established business district;
- justify creation of special improvement districts or tax increment financing districts;
- identify demand for transit-oriented development when new rail lines or multimodal facilities are being planned;
- determine the fiscal impact of a proposed project to use in negotiating impact fees;
- justify using incentives to serve a neglected market niche, such as artists' housing;
- provide information on housing stock, prices, rents, and vacancies to prospective employers; and
- support infrastructure investment in facilities that will draw tourists and other visitors.

Investors and Lenders

Market studies provide input for cash flow analysis, which tells lenders whether a project's income is likely to cover its debt service and tells investors what returns should be expected on their investments. A lender will look at the developer's market study when deciding whether to consider a loan application but may ultimately decide to commission a second study. Lending institutions and government agencies that provide bond financing have their own standards for market study content and may or may not deem a developer's study to be sufficiently detailed. Or the lender may be concerned about changes in market conditions that might have emerged over time. Equity syndicators, corporate investors, and limited partners may have similar concerns.

Lenders and investors need to feel comfortable that a proposed development or adaptive reuse is appropriate for the site or building, as well as for the presumed market. More specifically, they will ask the market analyst to offer an opinion on whether

- prospective buyers or tenants exist in sufficient numbers and can be attracted to the location;
- the project will lease up or sell at the pace projected by the developer;
- proposed prices and rents make sense in light of what the competition is offering;
- the amenities to be offered are necessary or appropriate for the marketplace; and
- the project will generate sufficient income to cover operating expenses and debt service, and still generate profits that will provide an attractive return on investment.

Market studies are also needed when buying or selling a piece of vacant land or when acquiring or disposing of an investment property. Generally, transactions are backed by an appraisal, but sometimes a market analysis report is completed either as part of the appraisal or instead of one. Researching recent transactions and competitive rents helps developers identify an appropriate selling price for a completed project. For a vacant tract, land value can be determined by using market study results to model total project value and then by assigning a share of the value to the land.

If a property's performance is not meeting expectations, a market study can suggest what improvements in occupancy or rent levels could

Figure 1-1

Market Studies: Clients and Their Objectives

Purpose or Objective	Developer	Equity Investor/Partner	Buyer	Seller	Lender	Redevelopment Agency	Housing Finance or Economic Development Authority	Tenant/Owner	Realtor/Broker
Market overview for use in brochure and publications	X			X		X	X		X
Input for corporate location, relocation, or expansion decisions								X	
Devise or revise real estate investment strategies	X	X							
Product planning, design, pricing, phasing	X								
Obtain zoning or other government approvals	X					X			
Input or assumptions for cash flow analysis	X	X	X						
Loan application support	X		X						
As part of a sales offering package				X		X			X
Acquisition due diligence			X					X	
Lender due diligence					X	X	X		
Ongoing asset management		X						X	

result from upgrading or repositioning. Such a market study might be initiated by the property manager or by investors or owners.

Tenants or Buyers

Commercial tenants, be they office-based businesses, retail stores, or warehouse users, use market research when they are considering signing or extending a lease. Users of larger space may look to the services of a broker or an independent market analyst to help them decide on the best locations for their operations. Corporate real estate managers will analyze the advantages of locating in different metropolitan areas or examine the suitability of buildings being considered for purchase or lease. Apartment tenants and small businesses are not likely to commission market studies, but they will often rely on published market data from local real estate brokers or consult online sources to find out what rents are being charged in nearby competitive projects. Figure 1-1 depicts the many participants in the real estate industry who use market analyses and their reasons for commissioning these studies.

Who Does Market Analyses?

Many types of real estate professionals specialize in providing market analysis services. They may be employed by consulting firms that specialize in real estate research or services, or the research departments of brokerage firms, or commercial real estate appraisal firms. Large developers may have a team of in-house analysts. Providers of market analysis can be found in the membership rosters of organizations such as the Urban Land Institute, Lambda Alpha International (the land economics honorary society), the Counselors of Real Estate, and the American Planning Association. Other professional organizations represent analysts who cover niche markets. For example, the National Council of Affordable Housing Market Analysts (NCAHMA) publishes a directory of market study providers, which is available on its Web site. Public accounting firms also have active real estate practices that include market analysts who specialize in hotels, resort and time-share communities, and global real estate investments.

Larger market research firms can be generalists working in major metropolitan areas throughout the United States or worldwide. Others concentrate their efforts in particular regions. Many market analysts focus on only one or two land uses—housing or retail, office and industrial space—because specializing allows them to develop in-depth knowledge and data sources that reflect their specialties.

Real estate brokerages also prepare market analyses covering national, regional, and local conditions. National firms use their networks of local offices to provide insight into local conditions, as well as statistics on market performance and project announcements. Brokerage reports tend to focus more on supply than on demand, but good reports will include an economic overview that covers trends in such key indicators as employment growth or household mobility. Major firms like Cushman & Wakefield, Grubb & Ellis, CB

Richard Ellis, and Marcus & Millichap publish data; some data are available only to clients, but all such firms release some information and insights on market conditions for public use. When a brokerage represents a property that is being offered for sale, it often will prepare a market analysis to accompany information on the specific property. Increasingly, brokerage reports are not only national but also global in scope.

The past 15 years have seen dramatic growth in private, subscription data services that provide overviews of market conditions for one or more land uses. Their reports, available for a fee, cover broad trends and, like broker reports, emphasize the supply side. They provide information on the size and quality of the inventory, often classifying space as Class A, B, or C (typically for apartment complexes, office buildings, and industrial space) or, in the case of hotels, by market niche (convention, luxury, budget, etc.). The inventory is then further divided into geographic submarkets, with information provided on rent trends, occupancy, and construction activity. Unlike brokerage reports, some private data services permit customized geographies, allowing the analyst to narrow in on the most competitive properties. Private data vendors also offer a wealth of historical information that may not be included in a brokerage report. Additional information on these data sources is provided in later chapters of this book and in the annotated webliography in the appendix.

Trade associations also compile data that provide important insights into market conditions nationally, regionally, and for larger metropolitan areas. For example, the Web site of the National Association of Realtors (NAR) provides regular updates on the volume of residential sales transactions, days on the market, and median sale price of homes sold. Local affiliates provide more detailed data for smaller geographic areas, allowing the market analyst to compare price levels and sales activity in different parts of a state or different counties in a large metropolitan area.

Factors Affecting the Cost of a Market Study

Developers often underestimate the value of an impartial assessment of the market. They understand that they will have to pay for other professional services—an architect and an engineer, at a minimum—to get plans approved, but they see no need to pay for an outside market study unless they are asked to do so by a lender or a government agency. Even when they recognize the need for an objective analysis, they may not have a realistic sense of what a market study will cost.

The study objectives, the expertise needed, and the complexity of the research will all influence the cost of market research. A developer, lender, investor, or government agency that is considering hiring a consultant to do a market study needs to consider a number of factors when budgeting for the work:

- *Number of land uses being considered.* The amount of data that will need to be collected and analyzed is much greater for a multiuse project than for a single-use property. If a residential development will have both rental and for-sale components, data on the characteristics of household demand may be the same for both housing types, but the market analyst will have to visit many more potentially competitive properties. A mixed-use project involving office space, a hotel, and condominiums will require more detailed analysis of employment data and sources of hotel room demand than will a condominium study alone. There may be some economies of scale with multiple uses, but mixed-use projects are inherently more complex and thus riskier; in some cases, more than one consultant will be needed and their scopes of services will need to be crafted carefully to generate the answers needed while avoiding duplication of effort.
- *Required detail.* At the early stages of the development process, an overview of local area demographics and key characteristics of the competition may suffice to provide ideas for project planning. In contrast, a report that will go to investors or lenders will need a careful exposition of methodology as well as detailed information on competitors and demand segments.
- *Experience and credentials of the market analyst.* The level of experience that staff need for a particular study will affect its cost. If more senior consultants are needed, the study will obviously be more expensive than if it can be prepared by junior staff. If relatively inexperienced personnel are doing field research or report writing to

minimize fees, they should be supervised by senior personnel who are familiar with all aspects of the work program and who review any reports and recommendations.

- *Fieldwork expenses.* Hiring a market analyst who is based in or near the location being studied can save on travel-related expenses. However, some developers or lenders and investors may prefer a nationally known consultant or a person whose judgment they trust, even if this increases the fee.
- *Buying data.* Purchasing demographic data, mapping software, or supply inventories from private vendors can be a time saver, but doing so can also cost hundreds or thousands of dollars, depending on the scope of the market study.
- *Hiring subcontractors.* If a consumer survey is needed as part of the market study, the consultant will probably need to find a specialist who handles bulk mailings or has a phone bank (see chapter 3 on the different types of consumer surveys) and has personnel to enter the data and tabulate results.
- *Scheduling.* A developer or lender who asks a consultant to prepare a market study in a short time frame often will have to pay a premium; the consultant may need to bring in outside assistance to get the job done on time.

Summary and Book Outline

Market research is an investigation into needs and wants (*demand*) and into products that compete to satisfy those needs and wants (*supply*). The availability of data has been greatly enhanced over the years, as transparency has come to real estate development. Today, reams of information must be synthesized using instinct born of experience—and nothing takes the place of old-fashioned "shoe leather" fieldwork for understanding the competition.

The importance of market research in the real estate development process, particularly in unfamiliar or highly competitive markets, cannot be overemphasized. Market research begins at the project's inception, when an idea first emerges to acquire a property or to develop a site, and continues through the construction, marketing, and eventual disposition of the project.

This chapter has defined market analysis and discussed its uses and users. It has shown how market analysis fits into the development process as a way to improve decision making at each stage. Useful research can be both broad (including global, national, and regional economies and product trends) and highly focused (for example, fine-tuning the features to be included in kitchens at an apartment complex or the truck docking and loading facilities in a warehouse).

The rest of the chapters explain how to perform market analysis. Chapter 2 outlines the content of a market study, from researching the background of the region or metropolitan area, to delineating a local market area, analyzing demand and supply, evaluating a site and its location, and documenting and illustrating the report. Chapters 3 and 4 provide general guidance on analyzing demand and supply. Chapters 4 through 8 describe how to tailor the process to each product type, including how market areas differ for each land use, product-specific methods of analyzing supply and demand, the types of data needed, and where to find information. Each chapter includes case studies that illustrate the concepts explained in the chapter. The case studies are written by practitioners, and are condensed versions of actual market studies that have been prepared for clients or for in-house decision makers. An appendix provides a glossary of terms used in real estate market analysis and an annotated webliography of public and private information sources.

This book focuses on conducting market studies in the United States. However, the basic approach to market analysis—methods and content—can be applied to real estate anywhere in the world. Product characteristics, consumer preferences, location issues, and data sources will be unique to each country and, in many places, information on current conditions will be more limited. The techniques for analyzing supply and demand, however, are the same no matter where they are used.

Cabot Circus is a large mixed-use project that includes a retail center enclosed under a glass bubble. The project is located in Bristol, in southwestern Great Britain.
The Bristol Alliance

Chapter 2

Basic Approach to Real Estate Market Studies

This chapter outlines in general terms how to approach a real estate market analysis and what to include in a thorough report. It sets forth the basic tasks to be done, discusses the importance of field observations, and identifies the types of information needed to reach supportable conclusions. It also discusses how to use maps, tables, and illustrations to make reports more clear and convincing.

Although the content and detail suggested in this chapter are most appropriate for a formal report on a proposed development plan, parts are relevant for shorter reports—for example, an overview of supply conditions, an update of performance indicators at competitive properties, or an examination of changes in demand demographics. Detailed how-to guidance for specific property types is presented in chapters 4 through 8; specific data sources are cited in the appendix.

Describing the Regional or Metropolitan Setting

The market analyst needs to set forth the regional economic context for a proposed development project. The purpose of this introductory material is to demonstrate to the reader that the report's conclusions and recommendations make sense in light of overall regional economic conditions.

The analyst should provide background on the location of the site within the metropolitan area—for example, the distance to downtown, to the airport, and to other regional draws. Some market analysts begin with an overview of key demographic indicators for the metropolitan area, such as population and household growth and median household income. Others incorporate these indicators in sections of the report that discuss conditions in the local market area, providing an opportunity to easily compare and contrast regional or metropolitan area–wide trends with conditions in the submarket or trade area where the project is proposed.

At a minimum, demographic and economic data should go back as far as the preceding decennial census. However, once the most recent census is more than a few years in the past, the analyst will need to provide more current estimates and projections. For a fee, private data vendors such as Claritas, ESRI, and DemographicsNow issue current-year estimates and five-year projections. Their data can be accessed on a subscription basis (which is usually more economical for analysts who use information for many places in a given year) or as a one-time-only custom order.

It is useful to compare current estimates from private vendors with those prepared by the U.S. Census Bureau (which issues estimates of metropolitan, county, and large-city population every two years). For metropolitan areas and larger places, the Census Bureau's American Community Survey (ACS) provides selected demographic and housing statistics on an annual basis. The scope of the ACS is being expanded, because it will replace what used to be known as the "long form" in the decennial census. However, the ACS does not cover small suburbs and rural counties, nor does the Census Bureau issue population projections at

the metropolitan or local levels. Instead, state and regional planning agencies or universities often prepare projections, which can be compared with private estimates.

The overview of the region or metropolitan area should also include a discussion of employment trends, because employment growth creates demand for real estate products. The data on employment should indicate how the total number of jobs has grown over the preceding five to ten years and which industries have expanded or declined. A market study often includes a look at the characteristics of the area's largest employers. Often, the biggest employers will be school districts, hospitals, and dominant supermarket chains or stores such as Wal-Mart. For hotel studies, the overview should discuss area-wide trends in tourism, convention attendance, and business meeting bookings—data that are usually available from convention and visitor bureaus in larger cities or from state agencies.

State labor departments are useful sources of information on employment by industry as well as trends in unemployment rates for metropolitan areas and counties. The analyst needs to look carefully at the data series when creating tables with historic data, because the numbers are frequently revised (called *benchmarking*). Also, some data series do not include self-employed workers, farm workers, military personnel, or workers who do not pay into state unemployment compensation systems. It is important to use a consistent data series and to footnote any exclusions or omissions.

The regional or metropolitan overview should also include information on construction activity. For housing studies, building permit information should be tracked for at least five years, preferably with separate tabulations for single-family and multifamily activity. Because residential permit data are collected by the Census Bureau from individual permit-issuing jurisdictions, it is possible to calculate the percentage of permits in a metropolitan area that is captured in a local market. Free information on nonresidential construction activity is more difficult to find. Some state and regional agencies collect this information from local jurisdictions, but most do not. However, a market analyst who orders information from a private data vendor can often get construction statistics for metropolitan areas as well as local data. Large commercial real estate brokerages will also have this information available and may publish it in print or on the company's Web site. These Web sites do not always provide the needed level of detail, however; better information may be available from local sources, such as government economic development staff or real estate publications.

Defining the Market Area

One of the initial challenges facing the market analyst is to define the boundaries of the property's market area (or the trade area in a retail market study). In reality, properties often have two market areas—one from which the majority of potential tenants or buyers will be drawn and another in which the key competitors are located.

Trade areas for residential and retail properties are usually defined as a combination of census tracts, ZIP codes, municipalities, or counties from which the vast majority of customers (homebuyers, apartment renters, shoppers) will be drawn. In large cities, planning departments may assemble census information for city-defined neighborhoods. The analyst should recognize that ZIP codes often do not conform to municipal boundaries, nor do they necessarily reflect neighborhood residents' sense of "turf." Increasingly sophisticated geographic mapping tools, available from private demographic data vendors, also allow the analyst to create a customized definition of a trade area—perhaps a polygon, an irregular shape, or a group of highway interchanges that realistically reflects where area residents will shop or where office tenants will look for space.

Preliminary studies may define the trade area based on municipal or county boundaries or use three-, five-, or ten-mile rings to determine whether the population meets a minimum threshold size. Each ring includes the area within the stated number of miles from the subject site, without taking access or barriers into consideration. Ring data are relatively inexpensive to obtain from private vendors. Such simple trade area definitions are useful for an initial review of a market's population size or expenditure potential, but they will not accurately portray a site's likely trade area.

The most precise trade area definition will not extend equally in all directions because it will take into account transportation patterns, natural and built boundaries, and cultural or political factors. Devising an accurate market area definition will usually require first visiting the site of a proposed

development or acquisition to be able to understand these patterns; yet the analyst needs to take data availability and the cost of information collection into account when drawing a study area.

Factors to Consider

Seven key factors affect the size and shape of the market area:

- *Natural features.* In some cases, lakes, rivers, or mountains cannot be traversed easily. Roads might be narrow or winding, or bridges might be few and far between. In other cases, natural features act as psychological or social barriers. ("Nobody from around here would drive halfway around the lake just to go to the supermarket.")
- *Built barriers.* Highways, railroad tracks, large industrial areas, and airports can restrict access to a site from nearby neighborhoods, thereby limiting the size of the trade area. The impact of these barriers varies by the type and scale of the development being proposed. As a general rule, households will not want to cross a major barrier for everyday needs but would be willing to be inconvenienced to get to a larger shopping center. The absence of bridges across water bodies can have a similar effect.
- *Traffic congestion.* Chronic traffic flow problems can limit the size of trade areas, deterring potential homebuyers or renters or office tenants from looking at an otherwise attractive site. Traffic can also diminish the market for a retail facility by reducing the distance people are willing to drive in order to shop.
- *Population density.* A shopping center proposed for a densely developed city neighborhood will have a much smaller market area than one proposed for a small town in a rural county. In urban neighborhoods and in areas around train stations, the primary trade area might be defined based on walking distance—usually no more than a half mile. In rural areas where shopping choices are limited or few new housing developments are being built, customers will travel farther to get to someplace new.
- *Political boundaries between cities and suburbs or between school districts.* Residential properties in communities with low crime rates and good schools (all other things being equal) will draw from a large trade area. Political boundaries also determine real estate tax rates for all types of development. Tax rates can vary dramatically among municipalities in the same general area.
- *Neighborhood boundaries and identity.* Household income, family composition, education levels, and the age of the population all play a role in defining market areas for both residential and commercial properties. Community identity, insularity, and image influence where people are willing to live or shop.
- *Development size and mix of uses.* A sizable project will draw from a larger area than will a small one. A mixed-use development can have multiple trade areas; residential, office, and retail space could draw potential buyers or tenants from different parts of the metropolitan area.

Primary and Secondary Trade Areas

More sophisticated residential and retail market studies define both a primary market area, from which 60 to 80 percent of residential or retail patronage will be captured, and secondary market areas, which will generate the balance of demand. For retail studies, a portion of demand will also be allocated to *inflow*—retail purchases made by tourists and other visitors who do not reside in either the primary or the secondary trade area. Inflow can account for a significant share of sales at large fashion centers. (See chapter 5 for an in-depth discussion of how retail trade areas are defined.) Demand from outside the local area can also be significant for retirement housing. In metropolitan suburbs, developers of retirement communities will certainly draw buyers from nearby communities, but they are often surprised to find that that the majority of their customers come from beyond the local area to be closer to family members.

Hotel, resort, and second-home properties also target consumers who live well beyond a metropolitan area. Demand is more dependent on transportation access (easy interstate highway or air connections) and conditions in the general economy (growth in tourism, participation in sports such as golf or skiing, increasing affluence) than on local demographics. The competition may also be located outside the immediate area or even out of state.

Competitive Clusters

Office and industrial land uses tend to cluster along transportation routes, at highway interchanges, or around activity centers such as airports, seaports, universities, hospitals, or regional malls. When evaluating a prospective location for these commercial buildings, access—to labor force, clients, customers, and suppliers—is critical. The availability and cost of land and utilities, along with appropriate zoning and supportive local government policies, are also important factors in attracting new development. The number of nearby residents and the characteristics of their households are less important for hotel, office, and industrial projects than whether the community is stable or growing and has a good reputation in the real estate community. In fact, for industrial uses, fewer residential neighbors is preferable.

Metropolitan areas typically have several major office clusters located downtown, in suburban business districts, and along key highway corridors. Industrial and warehouse buildings can also congregate in multiple locations—near a port or airport, along freight rail lines, or at the junction of interstate highways. The marketability of a proposed new office or industrial development (or the economic potential of an existing property that is being considered for acquisition) is examined in light of both regional economic conditions and the performance of similar properties within the cluster or submarket.

Inspecting the Site

Field observations are critical to a high-quality market study. Analysts can rarely get an accurate understanding of the site and its environs without visiting the property. Maps can show the property's size and shape, but seeing the site gives a sense of its topography, natural features, and views. The presence of mature trees on the site can be an asset in selling single-family homes but may be a cost consideration for projects that require clearing land. Attractive views (mountains, lakes, rivers, skylines, historic features) can bring premium prices, but a site with steep slopes will require costlier site improvements and, for commercial uses, may limit visibility.

Visiting the site also provides an opportunity to assess the compatibility of the proposed development with surrounding uses. Unattractive or deteriorating buildings adjacent to or across the street from a site could deter potential tenants. An inspection will also suggest whether there will be visibility issues or problems with access from nearby roads. The field visit also provides an opportunity to meet with local planners to learn whether future infrastructure improvements might affect the marketability of the site, or whether other potentially competitive projects are in the development pipeline. The site analysis should conclude with an assessment of the advantages and drawbacks of the site and its surroundings.

Assessing the Site's Advantages and Disadvantages

If the site is unimproved, the report should discuss its size, shape, and dimensions. Topography and vegetation should be noted briefly, along with the presence of streams, ponds, or wetlands. The analyst should mention both positive and negative aspects of the property or its location. Site advantages might include location in a historic district, attractive views of the downtown skyline, or mature trees that will remain after construction. Incompatible neighboring uses, deteriorating nearby buildings, or noise from highways, rail lines, or airports are examples of negative aspects—especially for residential development. Any problems with access or visibility should be noted, with an indication of whether these disadvantages could hamper marketability. If any changes are planned (new commuter rail station, highway construction, road widening, intersection improvements, traffic signalization), their timing should be indicated.

Certain site attributes can be viewed either positively or negatively, depending on the land use being studied. Proximity to a major airport would benefit absorption of hotel rooms or warehouse space but would be less than ideal for an upscale residential subdivision. High traffic counts will not draw seniors to a retirement community but are welcomed by shopping center developers and their tenants.

Beyond the site and its immediate environs, the analyst must also consider such factors as community character and reputation. Crime rates and proximity to services that are necessary in daily living are also important for residential uses. If new housing is targeted to young families, the repu-

The Cork Factory is a conversion of the Armstrong Cork factory in Pittsburgh to loft apartments. ***Barbara Guterl***

tation of the local school district, the availability of nearby daycare, and community park and recreation programs should be mentioned. Residential real estate brokers and apartment community managers will be useful sources of information and insights. For office space, proximity to transit may be important to attract tenants in a tight labor market. The presence of shops, restaurants, and entertainment in the area create an identity that can lend prestige to an office location.

The property's zoning and permitted uses should be discussed, and note should be made of whether rezoning is necessary before development.

Proximity to Amenities

Nearby amenities can be very important in selling a location to prospective tenants and buyers. Proximity is obviously important for a resort or second-home property that is trying to attract skiers, golfers, or boaters, but it is also a consideration for conventional residential development. Increasingly, homebuyers and renters want to be able to walk, bike, or take only a short drive to shopping, recreation, schools, and entertainment facilities. Access to public transportation may also be important to potential residents. (Many housing consumers still prefer remote, semirural locations where larger lots are available or purchase prices are lower; in these locations, it is assumed that buyers will have to drive long distances to shop and their children will have to ride the bus to school.)

It is important for the market analyst to drive around the area near the subject property, noting the location of amenities that will be key for the buyer or tenant. For example, for a residential development, the analyst should note neighborhood shopping, parks, schools, churches, libraries, and health care services, as well as other features that are necessary in daily living. For an office building, convenient access to highway interchanges and parking or to rail stations is key. Prospective tenants will be drawn to areas with food and retail services, because these locations will be attractive to their employees. Office tenants may want to be close to hotels for visiting vendors, clients, or employees from other locations. In contrast, a retail chain's regional distribution and

warehouse facility needs to be within an overnight drive of dozens of stores, so a location at the intersection of a north-south and east-west interstate highway could be advantageous. For other types of industrial properties, rail service and proximity to ports and cargo airports are important.

Demand Analysis

As indicated earlier, it is useful to compare demographic trends in the trade area with those seen in the larger region, metropolitan area, or county. Local characteristics beyond population and household estimates and projections should receive greater emphasis. Additional population data should focus on age characteristics (especially important when analyzing the market for housing for seniors or for apartments catering to young adults) and household composition (families with children, empty nesters, and singles). If the area is attracting immigrants, this should be noted as a source of new demand. Detailed income data, when cross-tabulated with household age or other demographic indicators, can enable the analyst to identify the depth of targeted consumers—those whose housing or shopping preferences are likely to match the planned residential or retail space, and who have sufficient incomes to afford the rents or prices.

For retail market studies, information should be added on how local incomes translate into purchasing power for different store types. The analyst can prepare estimates of purchasing power and sales potential or obtain them from private vendors, as is described in chapter 5. Demand calculations for larger retail centers—those located in downtowns or other business nodes, or in tourist destinations—also need to consider the spending potential of office workers and the inflow from purchases by visitors to the market area. These calculations are more difficult to complete, because purely local data sources are limited. The International Council of Shopping Centers (ICSC) conducts periodic workplace spending surveys. Trade organizations can provide insight into the shopping habits of special consumer groups, such as college students. These estimates tend to be national or regional in geographic scope; data for individual metropolitan areas are nonexistent. In contrast, local convention and visitor bureaus may have estimates of spending by tourists and business visitors in individual markets.

For nonresidential properties, demand analysis may be limited to an examination of employment trends and a review of recent job growth in the competitive submarket. It is important for the analyst to discuss how growth in employment translates into need for office space. Approaches to office and industrial market analysis are discussed in greater detail in chapter 6.

Hotel demand is a function of projected growth in convention attendance, local business activity, and leisure visitor generators such as cultural attractions, outdoor recreation areas, beaches, theme parks and similar draws. The market analyst must determine which of these factors will generate room demand for the proposed product and how that demand will be supplemented by other sources of hotel revenue, such as meetings and banquets. Chapter 7 provides more detail on the unique features of hotel market analysis.

Supply Analysis

To understand the supply side of the equation, the analyst needs to look at existing and planned competition. Competitors can be identified through secondary sources—a directory of office properties or an apartment guide—but these sources may not be comprehensive or current. It is important to field-check information on competitors by driving around the area and by talking to building managers. Most market analysts will inform property managers or leasing agents that they are conducting research in the area, but others will "shop" the building, posing as a prospective buyer or tenant to see a model unit or get information on vacancies. It is important to recognize that not all competitors will be cooperative in providing data.

Some analysts provide detailed information on competitive properties in tables or individual project data sheets; others use a narrative style. Either way, the supply analysis should draw comparisons between conditions in the local market area and in the metropolitan area as a whole. It should end with a discussion of how the proposed property (or a completed building being sold or acquired) compares with the competition.

The greatest detail should be provided for those projects in the local market area that are most comparable to the planned development. Data sheets or tables typically include the following items:

- property size—number of units for a residential project, square feet of space for a commercial building, number of hotel rooms;
- year the property was built and when it was last renovated;
- for residential properties, models offered by number of bedrooms and baths and the size of each unit type; for business parks, range of building sizes; for office space, floor plate sizes;
- project or building amenities (for example, concierge services, pool, jogging trail, green building features);
- in-unit amenities (such as technological features, balconies, fireplaces, and any upgraded appliances, flooring, countertops, or trim);
- monthly rent, total and per square foot, for each unit size;
- lease concessions being offered (for example, months of free rent, above-standard tenant improvement allowances);
- utilities and services included in the rent; extra charges (for example, parking or health club charges, common area maintenance in an enclosed mall);
- anchor tenants, for a retail or office property;
- occupancy rates, sublet space available, and comments on the size and location of vacant spaces in retail properties; and
- absorption rate for recently built projects.

The analyst must also investigate competitive projects that are still in the pipeline, which will ultimately become the direct competitors for the proposed project. Of course, many details will not be known for these projects, but it is useful to provide as much information as is available—the size of the project, the market niche it is targeting, if it has received needed government approvals, if any anchor tenants have been signed, when it is expected to open. Much of this information can be collected by visiting the local jurisdiction's planning office. In a trade area with multiple jurisdictions, finding information about future competition can be one of the analyst's most time-consuming tasks. In some localities, published lists might be available, but these provide little insight other than the lot size and square footage or number of units. It is possible that the most competitive developments (those that are most similar to the proposed project in terms of quality, amenities, and types of consumers being targeted) are located outside the local market area.

Reconciling Demand and Supply

Market studies should conclude with an unbiased assessment of how well a proposed project will be able to compete; it should provide estimates of achievable rents or prices, suggest how quickly the project will be absorbed (leased or sold), and indicate what the stabilized vacancy rate will likely be. For an acquisition of an existing building or complex, the key risk factors should be spelled out. Does the project face an overbuilt market; is there high tenant turnover; does it require renovations or upgrades? If the market is currently oversupplied, the analyst should estimate how soon supply and demand will become more balanced, using historical metropolitan area or submarket vacancy rates as a guide. The likely duration of rent concessions should also be discussed.

Comparing the Subject with Its Competition

The analyst should highlight how the subject property compares with its competition in terms of key features. These will vary by product type and may include

- location (access, convenience, visibility, prestige);
- rent or purchase price;
- unit sizes and mix by number of bedrooms and baths and lot sizes for single-family homes;
- occupancy costs (estimated monthly cost of utilities, property taxes, common area charges for shopping centers);
- parking ratios and availability of garage spaces versus open lot spaces;
- building or project amenities such as exercise facilities, on-site daycare, concierge services, clubhouses, and pools;
- ability to support current and future technologies;
- security; and
- building and grounds maintenance.

Of course, competitive rents or prices are critical to all land uses. When looking at new construction, it is important to compare asking rents in cur-

rent dollars, even though a new building could take two or more years to complete.

Capture Rates

Growth in target market groups needs to be sufficiently strong that a new project will not swamp the market. As a result, market analysts look at capture rates or penetration rates—the share of projected demand growth that a project must attract to fill its rentable space or sell its lots or homes.[1]

Determining whether a projected capture rate is reasonable or excessive requires judgment based on experience. There are no hard and fast rules. A well-conceived project in a dynamic market (with a growing number of income-qualified households or a surge in high-paying jobs) might succeed even with a high capture rate—just how high depends on the amount of competitive space that will be coming on line at the same time. In contrast, a niche product serving a select group of potential customers will, under the best of circumstances, attract only a small share of demand and should be assigned a lower capture rate.

Consider the following examples:

- A developer is considering construction of an 800,000-square-foot downtown office building that will take three years to complete. Employment in office-prone industries rose strongly over the past five years, vacancy rates dropped, rents escalated, and two other new multitenant structures have been started in response to positive market conditions. Whether this market can support a third new office building will depend on projected growth in office-type businesses and the number of jobs they provide. With the economy slowing, much of the space already under construction has yet to be leased. Because the other new competitors will not be completed for 18 months, the proposed building cannot be expected to capture all of the projected demand growth three years hence. Vacant space may remain available long after the office building is completed.
- If a proposed housing development for seniors has to capture a third of all the age- and income-eligible households in the trade area in order to fill its units, development will be risky and absorption will be slow. Relatively few seniors move in any given year, some will move outside the area, and many are simply not attracted to age-segregated living. Owners would have to spend heavily on advertising outside the trade area to attract tenants. Thus, this project probably is too big for the local market area.

Determining the Supply-Demand Balance

Analysts should be on the lookout for the following warning signs of an imbalanced or overbuilt market:

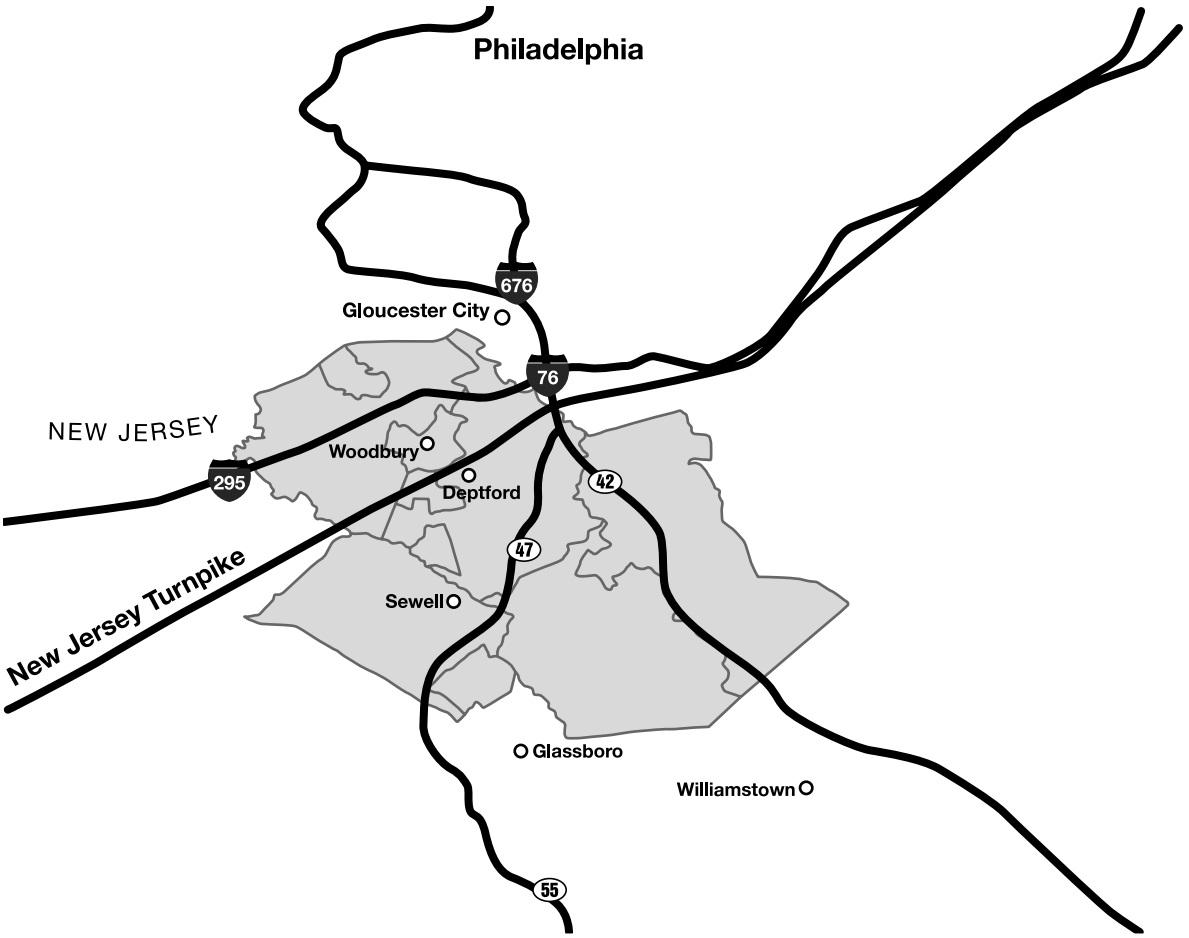
- Construction activity levels that dramatically exceed new demand, as indicated by household or employment projections. Note, however, that some excess is tolerable (and even desirable). If supply and demand were perfectly balanced, vacancy rates would be very low; rents would escalate, eventually forcing out price-sensitive tenants.
- Escalating vacancy rates that cannot be readily explained by the movement of a single large tenant.
- Negative net absorption, with more space being vacated than new leases being signed.
- Declining real (inflation-adjusted) rents.
- Chronically vacant space and abandoned buildings, which indicate obsolescence, lack of demand, or both.

Absorption Rates

Developers and investors will look for the analyst's estimated absorption rate—the pace at which the proposed project will be able to lease or sell space. Depending on the property type, the absorption rate could be expressed as

- the number of apartments that will be leased or homes that will be sold each month;
- the length of time it will take to sell building sites in an industrial park; or
- the number of months until an office building or shopping center is fully leased.

Absorption rates are important inputs in financial feasibility models, determining how long investors will have to carry the property before it starts generating positive cash flow. Most analysts express absorption rates as a range—say 12 to 16 apartment units leased per month, or 20,000 to 30,000 square feet of retail space leased per quarter. Preleasing (renting space before construction



Map of housing market area in Gloucester County, New Jersey, defined using municipal boundaries.

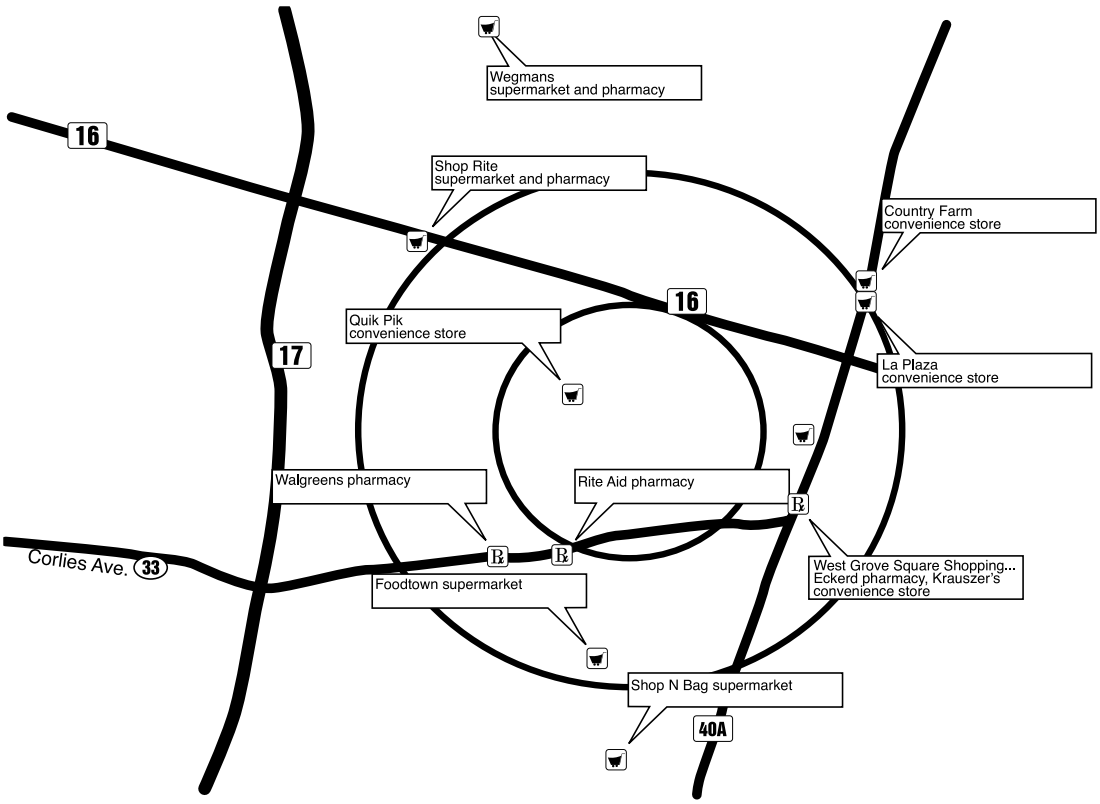
is completed) must also be factored into the absorption rate.

To a large extent, the analyst will rely on the absorption experience of recently completed competitive projects, especially those that are still being actively marketed. He or she will consider the competitive strengths and weaknesses of the project relative to these competitors, as well as changes in economic conditions.

Calculating how fast a project will lease up or sell out is much more difficult in a location where no similar new construction has occurred in years. If demand trends are positive and the project is appropriately priced and well located, a large new apartment complex should absorb at least 20 units per month initially, but the pace will slow as the most desirable unit types or floors are fully leased. The same is true of shopping center space. A 300,000-square-foot center might have 60 percent of its gross leasable area (GLA) committed to two or three anchor tenants before construction starts, and another 20 percent of the total GLA leased by the time it opens. Less desirable storefronts (with odd configurations or reduced visibility) will take much longer to lease; the center might not be 95 percent committed until a year after opening.

Recommendations

Some clients will ask the market analyst to recommend changes to the building or site development plans that would improve its competitive position. This is one of the most valuable functions that an analysis can perform. Such recommendations might include



Neighborhood retail trade area defined using 0.5- and 1-mile radii.

- shifting the mix of units in a proposed apartment building project to include more (or fewer) two-bedroom units;
- offering an amenity or service for tenants that was not originally envisioned (such as a concierge);
- reducing rents to be more in line with what the competition is offering; or
- modifying the mix of large and small shop space in a proposed shopping center.

The Importance of Illustrations

When preparing a market study, the analyst must recognize that the report has many audiences. The client and its staff may be familiar with the subject property and its surroundings. However, others who read the report—for example, a limited partner or a lender—might be located elsewhere and unfamiliar with it. Using maps and photography helps orient the reader who is not intimately familiar with the local market area, the location of the site, or the competition.

A complete market study report should include a map that shows where the property sits within the metropolitan area. If the property is in a city, it is helpful to show the city limits; if it is in a suburb, the names of area counties should be shown. At a smaller scale, a map should show the boundaries of the primary and secondary market areas, the location of the site, nearby interstate highways, and key arterial roads. For an industrial study, the map should show the location of airports, harbors, key highways, and freight rail service. If the trade area includes multiple neighborhoods or political jurisdictions, they should be identified. Many computer mapping programs enable the user to specify boundaries, place names, roads, and natural features.

Many reports are illustrated with aerial photographs of the property's location. Mapping soft-

ware can also show bird's-eye views of adjacent and nearby buildings, allowing the reader to identify land uses.

Key amenities should also be mapped to show their proximity. For example, a map accompanying a report on a proposed single-family subdivision should note the location of nearby convenience shopping, local schools, ball fields, recreation centers, and libraries. When considering housing for seniors, it is useful to add the location of the nearest senior centers, hospitals, and medical offices. For an office building, it will be important to show proximity to restaurants, hotels, and health clubs. The attractiveness of a downtown retail location is demonstrated by showing its proximity to cultural attractions and pedestrian traffic generators such as universities, courthouses, and hospitals. In all cases, the area map should show nearby highways and arterial roads, as well as public transit stations.

Competitors should also be mapped, to show how close they are to the site. Photographs of the most comparable properties help the reader to visualize design, density, construction materials, and amenities that are characteristic of the local market area. Reports should also contain pictures of the subject site (even if it is a parcel of vacant land) and its immediate neighbors. Investors will want to feel confident that the surroundings are appropriate for the proposed development.

Providing an Executive Summary

Busy readers will be greatly assisted by an executive summary. The summary should cover key observations regarding the site and its surroundings, the advantages and disadvantages of the location, demand indicators, and characteristics of the competition. It should conclude with the analyst's recommendations—that is, whether the development project should proceed as planned or, if not, how it could be modified to make it more successful.

Note

1. As a practical matter, capture rate calculations assume that a portion of space (usually 5 to 10 percent, depending on local market conditions) will remain vacant, and that some share of demand will come from outside the trade area (new firms relocating from other regions, corporate transferees buying or renting housing, retail sales to tourists, and so on).

North Beach Place transformed a public housing structure in San Francisco's Fisherman's Wharf district to a mixed-income neighborhood with 341 apartments, tree-lined courtyards, retail space, and access to transit.
Bob Canfield

Chapter 3

Analyzing Demand and Supply

National, regional, and local economic conditions all affect property demand. Macroeconomic conditions (interest rates, inflation, job security, industrial productivity, and stability in the stock market) shape consumer confidence and business investment activity. The strength of the national economy influences whether businesses expand their space, retailers seek more store locations, families move up to pricier homes, and travelers book more hotel room nights. Thorough market analysis requires some consideration of the national economic climate. Even if the report does not include detailed charts and tables, the analyst should be aware of current and future macroeconomic factors when drawing conclusions about the advisability of starting a new project or investing in an existing building. At the same time, experienced researchers certainly understand that the national economy moves in cycles. Conditions observed today may change dramatically by the time a new building breaks ground, let alone by the time it is ready for occupancy.

Local economic conditions may not precisely mirror national trends: Not every metropolitan area benefits from a national economic boom, and some communities will survive a national recession relatively unscathed. As a result, real estate market studies usually give greater weight to regional and metropolitan area economic indicators than to nationwide statistics. For example, employment growth at local businesses that use office space (banking, insurance, legal services, consulting) will be the key demand determinant for new Class A office space. The need for additional hotel rooms will, to a large extent, depend on continued growth in local tourist, convention, and business visitation.

Local market dynamics are the most important factors considered in projecting housing demand. The only exceptions are for second-home or seniors' housing projects that draw from a wide area or for projects that serve special-needs populations, such as people with disabilities. Consumer demographics (population growth, household formation, mobility and immigration, age and family characteristics, income, and lifestyle choices) are critical in determining how much to build, which product types will sell or rent quickly, and how to set appropriate asking prices or rents. In turn, demand for convenience retail space is highly dependent on the location of new residential construction because households prefer to buy food and other daily needs without traveling far from home. As suburban sprawl turns farmland into subdivisions, demand for new retail stores is generated.

Developers and investors in residential and retail space look for population growth or new household formation. Housing developers may also want to see growth in particular types of households (families with children, seniors, young singles), depending on the product they are marketing. A discount department store will want to see working households with middle incomes, whereas high-end retail facilities will gravitate to areas with affluent residents.

If demand analysis is based on employment growth, estimates of space per worker will be used to translate jobs into supportable space. These

ratios vary dramatically by industry. Law firms use more space per worker than data processing firms do. Private sector offices are usually more spacious than government buildings. Moreover, standards change periodically, as warehouses become more automated, executive offices are downsized, and so on. Real estate journals, trade associations, and design professionals are good sources of information on how to translate job growth into space demand.

In some cases, real demand exists that cannot be demonstrated based on household growth or income gains. Housing market analysts will factor in demand for replacement of deteriorated, abandoned, or uncompetitive units. An underserved city neighborhood—long neglected by retailers, entertainment venues, or restaurants—may already have sufficient purchasing power to support a proposed development, even if its household count is static.

The market analyst must also devote considerable attention to supply factors that affect development feasibility. Typically, supply-side analysis considers (1) macroeconomic trends affecting the market and current conditions (metropolitan area or countywide absorption, vacancy rates, and rents and prices); (2) local area market indicators and construction activity; and (3) characteristics and performance of competitive buildings, both existing and proposed.

Brokers and private data vendors are the usual sources of raw information on conditions in the metropolitan area and the submarket, whether current or historical. However, market analysts, appraisers, and economic development professionals must verify, analyze, and interpret the statistics. To go beyond the numbers, they need to understand the physical character, tenancy, and performance of key competitors. Sophisticated analysis requires field visits and personal or telephone interviews with building owners or managers. Maps and tables are needed to provide information on the location and characteristics of competitive properties. Photographs are extremely helpful in showing their physical characteristics and curb appeal.

Economic Indicators

As discussed in chapter 2, a thorough market analysis begins with a review of the local economy, highlighting indicators most relevant to the particular land use or property type being studied. Real estate developers and their financial partners need to understand the drivers of economic growth—the mix of industries, the area's largest employers, and the nature of new and expanding businesses. Investors must have confidence in the market's continued economic vibrancy, so they look for evidence of a growing labor force and new job creation. They want to see an economy that can generate work for a growing labor force.

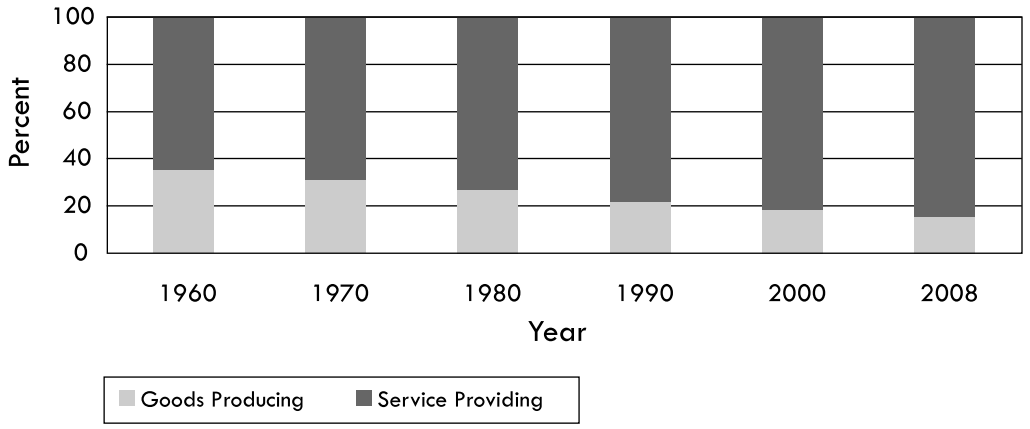
Since the 1960s, many metropolitan areas have undergone a near-total economic transformation. Heavy industry has departed, and even light assembly operations have shifted overseas. Some economists believe that rising fuel and shipping costs may halt this trend, but to date there is little evidence of a resurgence of manufacturing or other goods-producing industries in the United States, as shown in figure 3-1. In addition, areas that were once dependent on military personnel to support local retailing have seen bases closed and redeveloped. Telecommunications, computer services, and data processing firms that did not exist in 1980 were formed, grew, and generated millions of jobs, only to see many of those jobs outsourced overseas. In contrast, health care employment has grown as the population ages and new treatments are introduced. Educational institutions are increasingly important job generators as people see the need for lifelong learning—either to meet job requirements or for personal enrichment.

The mix of industries found in the metropolitan area will determine the strength of demand for different types of properties. For example:

- A community dominated by large, corporate-owned manufacturing facilities will need fewer multitenant office buildings than one dominated by small high-tech business services or financial services firms.
- Tourist destinations and convention cities (such as Honolulu, Las Vegas, New Orleans, or Orlando) will need far more hotel rooms than their resident populations would suggest.
- A city located at the confluence of three interstate highways is often a center for warehousing and distribution uses. Deepwater ports, major rail switching yards, and international air cargo terminals also create above-average demand for warehouse space.

The market analyst will need to go beyond analyzing the existing economic base. It is important

Figure 3-1
Change in the Composition of U.S. Nonfarm Employment, 1960–2008 (%)



Source: U.S. Department of Labor, Bureau of Labor Statistics, Historical Data, Establishment Employment; ftp://ftp.bls.gov/pub/suppl empsit.ceseeb1.txt.

to learn about announced expansions, new business formations, and companies that may be moving into—or out of—the area.

Using Employment Statistics

Government agencies publish two types of employment data. At-place statistics count jobs based on where they are located; the data are calculated from sample surveys and reports filed by employers. Monthly and annual reports on employment by industry (published by the U.S. Bureau of Labor Statistics [BLS] and state labor departments) are workplace-based. In contrast, worker-based statistics (including unemployment rates and much of the information on occupation and education of the labor force) are created from sample surveys and are tabulated by the respondent's place of residence. All the employment and occupational data in the decennial census is worker-based.

Real estate investors are interested in both the composition of the job base and how it has changed over time. Market studies should include current statistics on a metropolitan area's total employment by industry, using (at a minimum) two-digit North American Industrial Classification (NAICS) codes, as shown in table 3-1.[1] Comparisons with state and national norms will be helpful in highlighting those industries that are under- or overrepresented in the metropolitan job mix.

For office and industrial market studies, analyzing employment at the three-digit NAICS level zeroes in more precisely on job growth at potential tenant businesses. To see why, consider NAICS 53 (Real Estate and Rental and Leasing). The real estate segment (531) is a significant user of office space. However, NAICS 532 (Rental and Leasing Services) is composed primarily of businesses that do not typically occupy space in multitenant office buildings—auto and truck rental, video rental, heavy equipment leasing, and formal wear rental. Additional information on how to use employment data in an office or industrial market study appears in chapter 6.

For most market studies, the economic overview should include data on total growth in jobs over the preceding five to ten years and how those jobs are distributed by major industry group. In large metropolitan areas, at-place employment data may be presented for both the metropolitan area and submarkets (such as individual counties or large cities). Employment growth rates for the local market area should be compared with state and federal statistics. Annual averages can be used

Table 3-1
Two-Digit Industrial Classifications Used in Employment Statistics, 2007

Code	Industry
11	Agriculture, forestry, fishing, and hunting
21	Mining, quarrying, and oil and gas extraction
22	Utilities
23	Construction
31–33	Manufacturing
42	Wholesale trade
44–45	Retail trade
48–49	Transportation and warehousing
51	Information
52	Finance and insurance
53	Real estate, rental, and leasing
54	Professional, scientific, and technical services
55	Management of companies and enterprises
56	Administrative and support services
61	Educational services
62	Health care and social assistance
71	Arts, entertainment, and recreation
72	Accommodation and food services
81	Other services (except public administration)
92	Public administration

Source: U.S. Census Bureau.

when available. If monthly data series are used, the analyst should use the same month for every year shown.

State labor departments (and their Web sites) are the best sources of monthly employment data for metropolitan areas, counties, and larger cities. Annual averages for metropolitan areas can also be found in the January issue of the BLS publication, *Employment and Earnings*. BLS data are revised frequently, so it is important to use information from a single data series.

Because real estate projects take years to complete, the market analyst will want to obtain employment projections. The BLS's ten-year employment projections are revised every two years, but they are national in scope and should be used with caution in looking at future employment prospects in a specific metropolitan area or county.[2] Many states, large counties, and regional planning agencies issue employment projections, but they are not updated frequently. Private econometric firms such as Moody's Economy.com or Woods & Poole Economics provide short- and long-term projections for a fee.[3]

Finding current employment data—let alone projections—for smaller areas can be challenging. But such data are important when looking at the nature of employment in downtowns, city neighborhoods, or suburbs, and they are extremely useful in preparing market studies for office buildings and retail space. They can also suggest the size of the worker population that can be targeted for a new downtown residential development. Sources of information on employment for municipalities or by ZIP code include the following:

- The U.S. Census Bureau's County Business Patterns. This annual series has data for individual counties and ZIP codes on private sector businesses at the two-digit NAICS level, including the number of establishments, total employment, and establishments by number of workers. It does not cover self-employed workers or most government agencies.[4] Researchers should understand that, in a small area, much of the data may be missing because the Census Bureau protects the confidentiality of information for individual businesses. Thus, if one employer is the only source of jobs in a particular NAICS code, data on employment for that code may be suppressed.
- InfoUSA is a private, fee-based source of business establishment and employment data. Information is compiled using phone directories, U.S. Postal Service records, and government sources, and then verified by phone each year. Users should note that not all businesses will be classified accurately by NAICS code. Lists can be purchased for a fee and then downloaded using spreadsheet or database software. Businesses can then be sorted by NAICS code, number of employees, or other indicators. The lists can be field-checked to generate names of stores or a list of office tenants in a given area.
- Private data vendors provide current information on total numbers of employees for custom-created geographies. These reports include government employment; however, they do not issue at-place projections for small areas.

Table 3-2 offers an example of data obtained for a defined area in Newark, New Jersey, in 2007.

Table 3-2
Sample: Selected Data from 2006 County Business Patterns, Douglas County, Colorado

Industry Code	Industry Code Description	Number of Employees for Week Including March 12	Total Establishments
	Total	70,380	6,755
11----	Forestry, fishing, hunting, and agriculture support	—	16
21----	Mining	118	34
22----	Utilities	—	8
23----	Construction	8,153	945
31----	Manufacturing	1,708	115
42----	Wholesale trade	3,630	350
44----	Retail trade	12,232	713
48----	Transportation and warehousing	710	76
51----	Information	4,259	165
52----	Finance and insurance	4,975	542
53----	Real estate and rental and leasing	1,354	471
54----	Professional, scientific, and technical services	5,349	1,258
55----	Management of companies and enterprises	3,799	23
56----	Administration, support, waste management, remediation services	4,269	394
61----	Educational services	1,246	123
62----	Health care and social assistance	4,741	498
71----	Arts, entertainment, and recreation	1,547	84
72----	Accommodation and food services	8,888	424
81----	Other services (except public administration)	3,150	495
99----	Unclassified establishments	—	21

Source: U.S. Census Bureau, County Business Patterns 2006, www.census.gov/epcd/cbp/index.html.

Economic Diversity and Location Quotients

Most elected officials are always seeking new industry that will shake up the mix of jobs and breathe new life into the economy. In general, greater diversity in a local economy makes it less vulnerable to economic downturns and less risky as a location for investment. An area that depends on a few large employers or a single industry will be more vulnerable to recession. This will affect absorption of new space and continued strong occupancy in existing buildings.

A thorough market study will go beyond employment numbers to discuss the key drivers of the local economy. One way to present these data is to use location quotients, which are ratios that compare the concentration of a resource or activity, such as employment, in a defined area to that of a larger area or base. Location quotients might be used to compare state employment by industry to that of the nation or employment in a city, county, metropolitan statistical area (MSA), or other defined geographic subarea to that in the state.

For example, employment in the leisure and hospitality sector accounted for 11.7 percent of all U.S. jobs in 2007. In Ocean City, New Jersey, a small metropolitan area with a tourism-based economy, this sector accounted for 30.7 percent of total jobs. Ocean City's location quotient for this sector is 2.6 (30.7/11.7). In contrast, its location quotient for manufacturing is only 0.2; only 2.5 percent of its jobs are in manufacturing, compared with 12.1 percent in the United States as a whole (2.5/12.1). The analyst might draw the following conclusions from these facts:

- The area has many hotels and restaurants that thrive when consumers are prospering but would be vulnerable during a broad-based recession.

- The area has not been an appealing location for industry, perhaps owing to high costs, poor highway access, limited land availability, or other factors.
- The area may have potential for second-home development if it appeals to affluent households.

The BLS has an interactive Web site that calculates location quotients using annual averages for counties and metropolitan areas from the Quarterly Census of Employment and Wages (QCEW).[5]

Key Employers and New Industries

Noting the top ten or 20 largest employers is also helpful in portraying the area's economic base. Not surprisingly, supermarket chains, discount department stores, universities, community colleges, countywide school districts, and hospitals are typically found in the top 20 list. Federal, state, and county government may also be important to the economic base, especially in state capitals or areas with military installations.

It is useful to focus extra attention on the area's largest private sector businesses, noting whether their job counts or payrolls have grown over the preceding five years or if they are outsourcing work to smaller local firms. Conversations with local economic development officials (from the Chamber of Commerce or public agencies) or local utility companies can help clarify which segments of the economy are generating direct demand for space, bringing in new workers, and so on. If well-known Fortune 500 companies are expanding or relocating into the area, their plans should be noted. Similarly, if a key employer is contracting operations and layoffs are anticipated, this change should also be cited.

Local chambers of commerce, economic development agencies, and business magazines or newspapers are the best sources of information on major employers and their future plans. Printed materials, telephone or in-person interviews, and agency Web sites can also provide statistics.

Labor Force Profile

Labor force availability and skills are important to employers and are carefully considered when businesses make location decisions. At a minimum, market studies should provide information on growth in the resident labor force and the local unemployment rate during each of the preceding five years.[6] The market analyst should then provide a brief interpretation of the data and their implications, if any, for the property. Comparisons with state and national unemployment rates and trends for the same time period are useful. If potential tenants will need specially trained or well-educated workers, the report should also provide background information on the educational attainment of the resident population, as well as brief descriptions of relevant community college training programs, nearby universities, and specialized trade schools. For properties that will target a small number of specific industries, information on wage rates and how they compare with state and national averages will be needed. It is also worth checking on whether economic development incentives are available for firms that generate employment.

An economically healthy county will be able to maintain or reduce its unemployment rate even as the number of potential workers grows. In most situations, low unemployment is a positive indicator for real estate: it boosts demand for homes and household services, and sustains retail sales. However, if the supply of available workers is too limited—or if needed skills cannot be found in the area—labor costs increase and businesses may look elsewhere for space as they expand.

State labor departments compile monthly and annual average labor force estimates and unemployment rate statistics for metropolitan areas, counties, and larger cities. Data are also aggregated by the BLS and published on its Web site.[7] A person is classified as unemployed if he or she was not working during the week of the survey, was available for work (except for temporary illness), and had made specific efforts to find employment some time during the four-week period ending with the reference week. Conversely, a person is considered employed if he or she worked for compensation during the week in question, even if the work was only part time.[8] An economic slowdown may not be immediately visible in unemployment statistics; some employers will reduce hours or shift workers from full-time to part-time status before offering early retirement incentives or announcing layoffs.

As with establishment-based employment estimates, an analysis of historic trends in labor force or unemployment rates must use similar data

Table 3-3

Example: Number of Establishments and Employment by Type of Business, Newark, New Jersey, Market Area

Type of Business	Number of Businesses	Number of Employees	Percentage of All Employees
Construction	45	92	0.3
Manufacturing	17	126	0.4
Wholesale trade	36	281	0.9
Retail trade	200	733	2.3
Transportation and warehousing	27	129	0.4
Information	66	2,622	8.4
Finance and insurance	70	5,246	16.8
Real estate	43	597	1.9
Professional, scientific, and technical	316	4,327	13.9
Legal services	216	3,252	10.4
Business management	3	3,003	9.6
Administrative, support, waste management and remediation	71	551	1.8
Educational services	29	547	1.8
Health care and social assistance	98	5,756	18.4
Arts, entertainment, and recreation	17	319	1.0
Accommodations	4	181	0.6
Food services and drinking places	88	475	1.5
Other services (excluding government)	159	2,501	8.0
Public administration	116	3,663	11.7
Other and unclassified	83	84	0.3
Total	**1,884**	**31,232**	

Source: ESRI.

series. Labor data series are either seasonally adjusted or not. Monthly estimates for counties or metropolitan areas are not seasonally adjusted; for example, they do not take into account variation that occurs during the holiday shopping season as retailers increase their hiring; neither would unadjusted data clearly indicate the employment situation in a beachfront resort area. To discuss trends using unadjusted monthly data, the analyst should compare the current unemployment rate to that of the same month during previous years. Annual averages, which are adjusted for seasonal differences, can also be used, as shown in table 3-4.

The size and composition of the labor force reflects demographic trends and educational attainment as well as economic opportunity. The labor force is fluid (workers enter, leave, or retire), and it is mobile (workers move in pursuit of more

Table 3-4

Resident Labor Force and Unemployment Trends, Akron, Ohio, MSA

Year	Labor Force	Unemployed Persons	Unemployment Rate (%)
2000	365,083	14,918	4.1
2001	365,159	16,441	4.5
2002	365,989	21,406	5.8
2003	370,044	22,459	6.1
2004	373,489	22,296	6.0
2005	379,385	21,580	5.7
2006	384,584	19,944	5.2
2007	388,588	20,807	5.4
2008	391,112	24,105	6.2

Source: Bureau of Labor Statistics.

job choices, better pay, or a more attractive environment). While the resident labor force in the United States continues to grow, it is shrinking in many parts of Eastern Europe, Japan, and elsewhere. Many less-developed nations export labor to countries where it is in short supply.

Visitor Profiles and Tourism Trends

Visitor statistics are important in determining potential demand not only for hotels and resorts but also for entertainment, amusement, and cultural facilities that derive a significant source of patronage from out-of-towners. A certain amount of retail business is supported by travelers as well. The data are obtained through a variety of methods and are not necessarily consistent from city to city.

Tourist information can include a variety of statistics:

- trends in occupied hotel room nights and average daily room rates, important indicators for analyzing both supply and demand;
- estimates of out-of-town visitation, based on data collected from airlines, bus companies, Amtrak, and tour operators;
- patronage at museums, theme parks, concerts, and sporting events, based on ticket sales and visitor surveys; and
- breakdowns of visitors by type (convention attendees, business travelers, and pleasure visitors), from hotel bookings and visitor surveys.

Agencies that are responsible for tourism promotion also collect data on local spending by tourists at restaurants, stores, and entertainment venues. The data are obtained through surveys conducted by mail or by phone. Visitor spending data used in retail market studies should cover not only hotel guests but also day-trippers, who do not stay in a hotel, and visitors who stay with friends or relatives.

When considering an investment or development project outside the United States, data on domestic and international travel can be obtained from agencies of the United Nations as well as tourism organizations representing the Caribbean region and individual countries. The U.S. Department of Commerce issues periodic reports on visits to the United States from outside the country and also analyzes the overseas travel habits of Americans. Additional information on these sources is provided in chapter 7.

Consumer Demographics

Housing and retail market studies require considerable detail on local demographics, typically including data on the distribution of households by income (often cross-tabulated with the age of the householder). For retirement housing, data on assets as well as current income help determine affordability. Information on age characteristics, family composition, household size, and housing tenure will also shape the analyst's conclusions and recommendations for any proposed project that will target specific population subgroups (senior citizens, homeowners, families with young children).

As niche marketing grows in importance, sophisticated clients often demand more detailed market area segmenting that will provide insights into lifestyle choices, ethnic characteristics, educational attainment, and occupations. If a residential developer or owner has similar properties in its portfolio, obtaining information on existing tenants or buyers (age, presence of school-age children, marital status, incomes, location of prior residence) can be invaluable in identifying likely customers. Shopping center owners frequently collect similar data from patrons using intercept surveys. (See chapter 5 for more information on direct consumer research for retail properties.)

Future projections are important, especially for larger projects that will be built and occupied over a period of years. Depending on the amount of time and money available for market research, the analyst can prepare his or her own estimates of short-run space needs, obtain forecasts from local or state planning agencies, or purchase projections prepared by economists or real estate consulting firms. Private demographic data vendors tend to look only five years into the future, which may be problematic for projects with long time horizons. The demographic models for such projects consider many factors in projecting population, households, and income but may not be as sophisticated with respect to household characteristics. It is important to remember that judgment based on local knowledge and experience can be as important as sophisticated modeling in generating an accurate forecast of future demand.

For office, industrial, and hotel studies, the level of demographic detail needed for the market area is more limited. Greater emphasis is placed on overall economic trends, labor force and employment growth, and occupation and wage data. However, even for a commercial or industrial property, the market study should include the most recent census counts and current estimates of the population for the jurisdiction, the number of households, and median and average household income. These statistics give the reader a sense of the community's overall economic health and image. It is important to note that some office space users—medical professionals and allied health care workers, insurance agents, residential real estate brokers, and other personal service providers—will want to learn about the potential customer base in the property's immediate area. Office leasing agents need to have this information on hand.

Clearly formatted tables help the reader understand the characteristics of the population, and how they have changed over time. Comparisons with growth rates and population profiles statewide, in the metropolitan area, or in the county where the property is located will demonstrate how the local housing market or trade area differs from the larger community. Key indicators should be highlighted in the text, and any unusual patterns or trends should be explained. Depending on the type of project being studied, and the characteristics of the trade area, some demographic indicators will receive greater attention than others in the report.

Population and Households

Population and household growth are the most obvious indicators of potential demand for housing or retail space. More often than not, an increase in population indicates that the local market or trade area is attracting new residents and shoppers, generating demand for additional housing and shopping facilities. However, it is possible for a trade area to show population growth without having much demand for additional housing units. Older households with only one or two people may be moving out and being replaced by larger, younger households with children. Or the neighborhood could be attracting recent immigrants or new ethnic groups with larger-than-average family sizes but no more spending power than smaller households. Conversations with knowledgeable local sources (such as real estate agents or community planners) can provide insights that help explain unusual population growth patterns.

Conversely, the absence of population growth does not necessarily signify a lack of demand for new space. A market area with little or no population growth may nevertheless need additional housing units or more stores. Neighborhoods that once served larger families with children could register a drop in population as those children grow up and move away, but they could still be attracting young singles and couples, empty nesters, or seniors.

Also, replacement demand can be significant in areas that do not show population and household growth. Replacement demand occurs when

- existing housing is lost due to fire or natural disaster;
- rental apartments are converted to condominiums;
- undesirable or deteriorated older housing units cannot be renovated or upgraded at a reasonable cost, and the location is valuable enough to merit redevelopment; and
- existing units are too big or too small for the types of households that want to live in the neighborhood.

For example, market studies for affordable housing often suggest demand for new units in areas that do not show growth in population or households. The new units will provide better quality, safer, or more spacious accommodations for low-income families. Demand for modern, physically sound units can be satisfied through new residential construction or through renovation of existing housing or conversion of obsolete commercial or industrial buildings to rental apartments or condominiums.[9] The key is to maintain the supply-demand balance through the selective demolition of deteriorated buildings.

Population loss is a greater concern for developers and owners of retail space. In general, households with a single wage-earner—be they young singles or seniors living alone—have fewer financial resources than two-wage households. If the number of households is declining because of conversion, demolition, or abandonment, total purchasing power is probably also declining.

Even so, supportable demand for retail space can exist even in trade areas that have problematic demographics. For example, a trade area may have

a number of grocery stores with sufficient total space to serve the market, but the stores could be undersized, poorly capitalized, or competitively weak. A new chain could successfully enter the market and challenge the existing competitors. Such a store could also attract additional smaller tenants that would benefit from proximity to a grocery store.

Demographic Characteristics

As discussed above, the age composition of the population and the characteristics of area households can strongly influence the demand for housing and retail space, the type of housing that will be marketable, and the types of stores that will be drawn to a business district or shopping center. For example:

- Younger households are more likely to occupy smaller units and are more likely to rent than own. Their retail expenditures are much different from those of families with children and those of seniors. Young people spend an above-average percentage of their incomes on restaurant meals and entertainment. Households with children spend more on food and clothing.
- Segments of the older population will be drawn to different types of age-restricted housing; those age 60 to 70 will gravitate toward active-adult developments (most of which have units for sale), while persons age 80 and older may seek assisted-living developments with supportive services.
- Recent immigrants are more likely to rent, whereas homeownership rates for foreign-born persons who have been in the United States for more than 20 years closely approximate those of the native-born.
- Seniors spend an above-average percentage of their income on health care and prescriptions, and a lower percentage on clothing.

Although demand for housing and retail space is more dependent on household incomes than ethnicity, developers and investors may nevertheless want to know about the ethnic composition of a trade area. If data from the decennial census or other sources suggest dramatic shifts, the market analyst should consult local sources as to the reasons for such change. Ethnicity is important

Table 3-5
Sample: Population and Household Characteristics

	Trade Area	Citywide
Total Population		
2000 Total Population	29,424	334,563
2007 Total Population	28,147	318,456
2012 Total Population	27,375	309,387
2007–2012 Annual Growth Rate (%)	–0.5	–0.6
2007 Population by Age		
Total	28,147	318,456
Share (%)		
0–4	4.3	5.2
5–14	6.7	4.8
15–19	4.6	8.0
20–24	8.7	9.4
25–34	31.2	15.3
35–44	13.5	12.6
45–54	11.4	14.1
55–64	8.0	9.9
65–74	4.8	6.4
75–84	4.4	6.1
85+	2.5	2.8
Median Age, 2007	—	36.6
2007 Population by Race/Ethnicity		
Total	28,147	318,456
Share (%)		
White Alone	53.9	63.8
Black Alone	31.8	29.7
American Indian Alone	0.3	0.2
Asian or Pacific Islander Alone	10.6	3.8
Some Other Race Alone	1.2	0.7
Two or More Races	2.3	1.7
Hispanic Origin	2.8	1.6
Total Households		
2000 Households	16,144	143,739
2007 Households	15,589	138,872
2012 Households	15,221	135,636
2007–2012 Annual Growth Rate (%)		–0.5
2007 Average Household Size	—	2.13
2012 Average Household Size	—	2.11
Family Households		
2000 Families	5,147	74,104
2007 Families	4,634	68,111
Families as a Share of Total Households, 2007 (%)	28.7	47.4
2012 Families	4,294	64,128
Families as a Share of Total Households, 2012 (%)	28.2	47.3

Source: Data from ESRI.
Note: — = Not available.

because it helps shape housing preferences and shopping habits. For example:

- In the past, housing for seniors had little appeal to certain Asian American cultures, because elderly widows or widowers rarely lived alone; they continued to live with younger family members. However, Asian families have become more dispersed, following educational and employment opportunities across regions of the country and internationally. As a result, demand for retirement housing and services is growing in Japan, China, and South Korea, and in neighborhoods with ethnic Asian residents in the United States and Canada.
- Savvy retailers know that African American households will spend above-average amounts on name-brand apparel.
- Hispanic families allocate disproportionately high shares of their income to goods and services used by their children. They spend an above-average proportion of their earnings on groceries for meals prepared at home, rather than at restaurants. Their clothing expenditures are below average.

Table 3-5 provides an example of demographic data obtained from a private vendor for a neighborhood retail market analysis. The data for the local trade area are compared with the city as a whole.

Household Income

Knowing that trade area residents have sufficient incomes to buy or rent in a proposed new housing development is very important to developers in deciding whether to build and what type of product to offer. Retail market studies use aggregate household income estimates for the trade area to calculate the expenditure potential for a proposed shopping center or a particular store type. Store chains look at a trade area's income profile to determine whether household characteristics are a good match with the merchandise lines, brand names, and price points those chains offer.

A market report should provide a breakdown of the estimated number of households in the area by income bracket. It will also indicate the median and average household income in the area.[10] In some reports, the analyst will provide similar estimates and projections of family income.[11] Measuring family income is especially useful for residential subdivisions, because families, not singles, tend to make the majority of home purchases. However, this is not always the case, and it is important to know the home purchasing trends of the local area.

Income breakdowns used in a market study will vary based on the type of property. For example, a market study for an affordable rental apartment development should show households by income in $5,000 increments for those earning less than the median income for the area; brackets as large as from $10,000 to $25,000 are acceptable for showing the households whose income is above the eligibility limits. In contrast, a market study for a luxury single-family home or condominium development should focus its detailed income statistics on households or families that are most likely to be able to afford the proposed project. Table 3-6 provides a sample breakdown of the number of households by age of householder and income using estimates and projections from a private data vendor.

In combination with household characteristics such as race and ethnicity, age, income, presence of children, and tenure, income data can be used to estimate the household expenditure potential for retail studies. Private vendors use complex models to provide such estimates for trade areas defined by market analysts, relying on consumer expenditure surveys conducted by the Bureau of Labor Statistics.[12] Chapter 5 provides more information on how to use these estimates.

It is important to remember that Census Bureau income statistics are based on sample surveys of money income. The bureau relies on the willingness of respondents to fully and accurately report what they earn. Not all households are entirely forthcoming. In many communities, there is a thriving underground economy consisting of people who work off the books, either legally or illegally, full or part time. Income from babysitting, tutoring, domestic services, moonlighting, and other occupations can add significantly to an area's purchasing power, allowing households to be able to afford both necessities and extras. Also, while the income data collected in the census do include Social Security, pension, alimony and child support, and other cash payments, they do not include noncash payments (such as housing subsidies or food stamps), nor do they consider assets such as savings accounts or stock market holdings. Consequently, census numbers provide a somewhat incomplete (and understated) estimate of house-

Table 3-6

Example: Number of Households by Age and Income, 2007 Estimates and 2012 Projections from a Private Data Vendor

2007 ESTIMATED AGE AND INCOME

	Age under 24	Age 25–34	Age 35–44	Age 45–54	Age 55–64	Age 65–74	Age 75+	Total	Total under Age 65
Total Households	859	4,730	8,487	8,827	6,483	3,903	4,164	37,453	29,386
Income									
Less than $15,000	134	275	358	417	411	550	785	2,930	1,595
$15,000–$24,999	69	327	309	280	429	527	759	2,700	1,414
$25,000–$34,999	130	359	525	348	492	471	573	2,898	1,854
$35,000–$49,999	96	681	956	797	763	691	728	4,712	3,293
$50,000–$74,999	137	1,236	1,839	1,531	1,167	632	420	6,962	5,910
$75,000–$99,999	119	828	1,602	1,763	1,154	463	420	6,349	5,466
$100,000–$149,999	67	724	1,810	2,422	1,177	349	213	6,762	6,200
$150,000–$199,999	80	188	709	778	555	138	161	2,609	2,310
$200,000–$249,999	23	67	150	194	122	45	81	682	556
$250,000–$499,999	4	35	200	267	179	34	18	737	685
$500,000 or More	0	10	29	30	34	3	6	112	103
Median Household Income	$50,062	$61,780	$77,933	$87,659	$74,379	$42,451	$34,200		
Average Household Income	$67,353	$74,769	$93,326	$101,722	$91,193	$58,559	$51,455		

2012 ESTIMATED AGE AND INCOME

	Age under 24	Age 25–34	Age 35–44	Age 45–54	Age 55–64	Age 65–74	Age 75+	Total	Total under Age 65
Total Households	815	5,510	8,132	10,184	7,962	4,630	4,381	41,614	32,603
Income									
Less than $15,000	118	251	269	341	375	486	685	2,525	1,354
$15,000–$24,999	54	288	227	236	397	472	623	2,297	1,202
$25,000–$34,999	101	321	362	271	418	403	497	2,373	1,473
$35,000–$49,999	88	691	731	716	825	755	729	4,535	3,051
$50,000–$74,999	123	1,337	1,537	1,552	1,384	776	550	7,259	5,933
$75,000–$99,999	114	883	1,219	1,492	1,176	547	426	5,857	4,884
$100,000–$149,999	90	1,107	2,024	3,384	1,721	625	392	9,343	8,326
$150,000–$199,999	78	300	829	1,100	771	248	202	3,528	3,078
$200,000–$249,999	41	226	495	616	472	182	206	2,238	1,850
$250,000–$499,999	7	69	326	372	313	102	43	1,232	1,087
$500,000 or More	1	37	113	104	110	34	28	427	365
Median Household Income	$57,437	$71,436	$92,934	$104,022	$85,558	$54,740	$41,644		
Average Household Income	$77,886	$90,922	$119,202	$121,474	$113,298	$80,886	$68,583		

Source: Data provided by Claritas.

What Topics Are Included in the ACS?

- *Social Characteristics*—School enrollment, education attainment, marital status, fertility, grandparents caring for children, veteran status, disability status, residence one year ago, place of birth, U.S. citizenship status, year of entry, world region of birth of the foreign born, language spoken at home, relationship, households by type, ancestry
- *Economic Characteristics*—Employment status, commuting to work, occupation, industry, class of worker, income and benefits, poverty status
- *Housing Characteristics*—Housing occupancy, units in structure, year structure built, number of rooms, number of bedrooms, housing tenure, year householder moved into unit, vehicles available, house heating fuel, utility costs, occupants per room, housing value, mortgage status and costs, gross rent
- *Demographic Characteristics*—Sex, age, race, and Hispanic origin

Source: U.S. Bureau of the Census, www.census.gov/acs/www/Downloads/Handbook2006.pdf.

holds' ability to pay for housing or their retail expenditure potential. This is especially problematic in low-income neighborhoods, where unreported income and noncash subsidies are key sources of purchasing power.

Understanding household assets is also important, especially when analyzing the marketability of housing for seniors. The money income of senior citizens will usually fall well below the overall average, but many retirees have substantial savings and investment assets, with little debt.

Housing Tenure

The extent to which trade area households own or rent their homes, while not a population indicator per se, is important not only for housing market studies but also for retailers. Home improvement centers, lawn and garden shops, and home decor, flooring, and furniture stores prefer to be located in areas with a high degree of homeownership. In contrast, mini warehouses tend to be located in areas with a high percentage of apartment dwellers because tenants often need additional storage space.

For small areas (a city neighborhood or groups of suburbs, census tracts, or ZIP codes), precise tenure estimates are difficult to obtain in census off-years. Private vendors estimate homeownership rates using surveys undertaken by the Census Bureau. However, the census provides annual tabulations only for the 75 largest metropolitan areas individually and for all metropolitan areas, principal cities, suburbs, and nonmetropolitan locations in the aggregate.[13]

Building permits can be helpful indicators of the types of units constructed since the preceding census, but the analyst must recognize that multifamily permits can cover condominium units as well as rental apartments. Chapter 4 offers more detail on using permit information in conducting housing market studies.

Demographic Data Sources

Demographic data can be obtained from the U.S. Census, private data providers (which typically charge a fee), or state and local public agencies. It is often necessary to rely on a combination of sources to assemble a complete picture.

Census Bureau Products

As indicated previously, the U.S. Bureau of the Census's decennial counts form the basis for most demographic estimates and projections. Because conditions can change dramatically between census years, market analysts must use more current demographic estimates. To help fill the void, the Census Bureau began to focus its resources on the annual American Community Survey sample, starting in 2005. By 2010, the information collected by the ACS will replace the decennial census's long form, which generated detailed data from a sample of households regarding household income, educational attainment, and other social and economic characteristics. The ACS will provide annual data for metropolitan areas, counties, and places with populations of 65,000 or more. Three-year average estimates are available for places with 20,000 or more residents. By the end of 2010, the Census

Bureau expects to release five-year estimates for all geographies and will refresh these estimates annually.

The Census Bureau also prepares state and county population estimates every year separate from the ACS. *Estimates* for metropolitan areas and places are issued biannually. Annual age, sex, and race and ethnicity breakdowns for states and counties can also be obtained from the Census Bureau's Web site. However, the bureau prepares population *projections* only for the nation as a whole and for states. They are updated infrequently and are of little help (except in comparisons) when studying a local housing market or forecasting growth in consumer spending.

State and Metropolitan Agency Sources

Many states and regional planning agencies prepare their own population estimates or projections. They are used primarily for transportation planning and in areas with strong growth management programs. Where available, the data are usually presented for counties and municipalities; ZIP code or census tract projections are rare. The market analyst should examine projections to evaluate their reasonableness; government jurisdictions are loath to issue projections that show declines in population or households.

Private Sources

Not surprisingly, private data vendors have stepped in to fill the void. Firms that sell demographic estimates and projections include economic consultants and demographic data vendors:

- *Economic consultants* use proprietary models to describe national, regional, and local economic conditions, and then estimate and project population, households, income, and (in some cases) housing demand. Some of these firms provide customized research and consulting services, in addition to selling standardized economic analyses and projections. Clients can subscribe to reports for the nation as a whole, for regions, or for one or more counties or metropolitan areas. Regular updates are available in a variety of media and can be purchased online, either by subscription or on a one-time basis. Examples of these firms include Moody's Economy.com and Rosen Consulting Group. Such sources are best suited to market analyses for commercial and industrial properties, because they also can provide detailed employment projections by industry.
- *Demographic data vendors* focus on consumer demographics rather than economic modeling. These firms provide greater detail on population and household characteristics. As a result, they are widely used in housing and retail market studies. These sources also provide estimates and projections of retail expenditure potential by type of store or by type of merchandise. Claritas, DemographicsNow, and ESRI are among the many companies that provide clients with local trade area estimates based on distance from a particular site, for a combination of municipalities, ZIP codes, or census tracts, or for custom-tailored geographies. They also offer five-year forecasts of population, households, age characteristics, and income, as well as current estimates for other key demographic indicators. Their data are available by subscription or on a "per report" basis. In recent years, these vendors have expanded their offerings to include detailed reports on employment by industry, daytime workforces, and estimates of retail purchasing power and sales by type of store.

  Woods & Poole Economics provides population, household, labor force, employment, and retail sales data (historic, current estimates, and 25-year projections) on disk and in printed booklets for individual states, counties, and metropolitan areas. Data for a single county or metropolitan area are reasonably priced and popular with local government planning agencies. Demographics USA also sells data disks and books for all ZIP codes as well as for counties, offering current estimates and five-year projections; however, the data cannot be purchased for a single geography and hence are more costly.

Additional information on demographic data vendors and links to their Web sites are provided in the webliography.

Psychographics: Portraying Household Lifestyles

Information on age, income, ethnicity, and housing tenure may not fully portray important differences in trade area populations. Household composition (singles or couples; presence or absence of young children), education, occupation, read-

ing and music preferences, hobbies, recreational pursuits, and community involvement can vary widely among residents in a given age or income bracket, influencing shopping habits and housing preferences. As a result, today's market studies often include information on trade area "psychographics." Market analysts can purchase lifestyle profiles of a trade area from private data vendors—Claritas and ESRI each have their own household lifestyle classification systems—in much the same way they obtain current population and household counts or income estimates and projections.

Psychographic systems assign addresses, blocks, and census-defined block groups to a lifestyle "cluster" based on its location (urban, suburban, rural, small town), employment (white or blue collar, retired), education (high school versus college degree), affluence and wealth, social status, and age. ESRI has 12 groups with 65 segments in its system, which is called Community Tapestry. Claritas's PRIZM system, owned by A.C. Nielsen, defines 66 clusters. Claritas also offers Workplace PRIZM, which creates similar typologies for workers by place of employment, using tract-to-tract commuting data from the Census Bureau. This product is useful when conducting retail market analyses for downtown areas with large numbers of workers.

Information sources that are used to construct psychographic profiles include television and radio ratings services, newspaper and magazine circulation bureaus, stores' "frequent buyer" programs, product warranty registrations, and the like. Local trade areas will typically contain at least two clusters; the larger the trade area, the more numerous the lifestyles contained within its boundaries. Data vendors assign colorful names to each socioeconomic cluster, as shown in table 3-7.

Table 3-7

Characteristics of the Top Three Lifestyle Clusters in ZIP Code 78664, Round Rock, Texas (Suburban Austin)

Data Vendor	Segment Name	Age (Years)	Income	Household Type	Race and Ethnicity	Tenure
Claritas PRIZM	Country Squires	35–54	Upscale	Families with children	Mostly White	Owners
	Kids & Cul-de-Sacs	25–44	Upper middle	Families with children	White, Asian, Hispanic	Owners
	White Picket Fences	25–44	Middle	Families with children	White, Black, Asian, Hispanic	Owners and renters
ESRI Community Tapestry	Up and Coming Families	Median 31.9	Upper middle	Young, affluent families with children	White	Owners; newer homes
	Aspiring Young Families	Median 30.6	Middle	Young married couples or single parents with children	White and Black	50 percent owners (single family and townhouses); 50 percent renters
	Boomburbs	Median 33.7	High	Two wage earners, upscale, younger families	White	Owners

Sources: Claritas, www.mybestsegments.com; ESRI, ww.esri.com/data/community_data/community-tapestry/index.html.

Analysis of lifestyle clusters helps developers determine the types of stores that would be best suited for a new shopping center. They are widely used by retail chains to see if the trade area surrounding a proposed location fits the profile of the chain's existing customer base. Consumer preferences for home types, sizes, features, and amenities become more obvious when residential developers use lifestyle data.

Using Consumer Surveys

Survey research can play a vital role in real estate market analysis by directly providing information on consumer opinions and preferences. In the real estate industry, *consumers* can refer to prospective homebuyers or renters, shoppers, or business-to-business targets, depending on the type of property being studied.

Using surveys and focus groups improves the accuracy of real estate market studies. The market analyst and the client can learn about the characteristics of potential customers and what aspects of a proposed real estate development are most important to those customers. Surveys are most commonly used in connection with retail market studies, especially when a community is trying to revitalize a sagging business district or a developer wants to retenant a declining shopping center. Surveys can tell a developer of housing for seniors about the choices being considered by households age 55 or older who live near a site. They also can provide feedback to a homebuilder about model home features that were most appealing to visitors. More generally, survey research can

- identify what previous customers (buyers or tenants) like and dislike about a building or an entire development project;
- gauge customer interest in new concepts or features not previously seen in the market;
- reveal which factors (location, price or rent, and amenities) are most important in customers' decision making;
- suggest how much tenants or buyers will be willing to pay for space in a proposed project;
- tell owners how current tenants feel about property management and maintenance; and
- provide information on prospects' demographic characteristics that can be cross-tabulated with their responses to substantive questions.

Surveys are most typically commissioned by a developer or a government agency; it is rare for a lender or investor to conduct a survey as part of its due diligence. Even for developers, direct consumer research is more the exception than the rule because of cost considerations or concern about timing. Real estate developers generally know their products well; they are very familiar with their competition, their market and their industry, and they know the characteristics of projects that have been successful in the past. So they are tempted to assume that they know their customers' needs and preferences. This is a common, but potentially serious, misconception.

Owners of existing shopping centers, office buildings, or hotels benefit from surveying their tenants or patrons when new competition enters the market. Large malls will survey shoppers every two or three years because they must stay informed regarding customer satisfaction.

There are two primary types of customer research—quantitative and qualitative. Quantitative research provides statistics on customer characteristics and the proportion of respondents who respond favorably to various aspects of a proposed project or an existing building. Respondents can be asked to react to planned changes or to suggest in what ways a project could be improved. Qualitative research does not produce statistics; rather, it allows more detailed exploration into customer perceptions of the product, competition, the market, the industry, shopping habits, housing preferences, and so on.

Consumer surveying, although it applies scientific methods, is not an exact science and has limitations. Changing market conditions, such as the economy and competition, make research results very time-sensitive and require that studies be updated periodically. Research results provide an educated guide for developing a property, marketing the product, and keeping it competitive. Although survey research cannot guarantee success, it reduces the risk of making wrong decisions and maximizes the possibility of success.

Identifying Targets and Respondents

Regardless of which type of research will be conducted, the first thing that must be done is to identify the characteristics of the people who should participate in the study. These characteristics can be either demographic or psychographic. They are used to select the area from which survey respon-

dents will be drawn and to screen survey participants. For example:

- An office developer would want to learn more about the future plans of existing tenants in their area whose leases will expire within the next 36 months.
- People who visited a shopping center at least once in the previous month could be the focus of a study used to evaluate expansion plans.
- A hotel would ask area businesses if they would use the new banquet hall being planned or ask frequent visitors about the appeal of its amenities.
- Commuters who use a train station could be asked about the types of stores they patronize during, before, or after work, and what new shops and services they would be likely to use.
- A developer of retirement housing may want to focus on people age 60 and older who live within five miles of the proposed site. In addition, it may be helpful to survey younger households in the area, because a high percentage of residents in retirement housing move to be closer to their children and grandchildren.

Using Quantitative Research

Quantitative research is conducted when it is necessary to be able to predict the target group's behavior with statistical accuracy. An example of what can be learned is the percentage of people who are likely to shop at a certain store or shopping center or the share of office tenants who are likely to move rather than sign a new lease in an older building. Quantitative research (statistically valid and reliable) usually requires a large sample size. Frequently, 200 or more completed surveys will be needed; requirements could be higher if the client needs to know about the characteristics and perceptions of particular subgroups.

Surveys can be performed by mail, telephone, in person, or over the Internet. In all cases, the survey instrument must be designed for easy computer data entry and analysis. Questions must be simply worded, unambiguous, and easy to answer. Each survey method has its own strengths and weaknesses. Consistent administration, cost, and timing are the most important considerations. Market researchers must select the methodology that most appropriately fits their needs and budgets.

Mail Surveys

Mail surveys are fairly inexpensive to administer. Once the target respondents have been identified, a list of potential recipients is obtained and a sample selected for mailing. Sources include current customer or tenant lists, municipal mailing lists, membership rosters, or commercially available lists, which can be purchased from reputable marketing companies. To increase response rates, targets may be offered a nominal incentive to participate. A public agency conducting or sponsoring a survey may use a letter from the mayor to appeal to recipients' civic pride.

Response rates for mail surveys conducted for private projects are usually low, but a short survey will usually draw more responses than a lengthy questionnaire. A key drawback of mail surveys is that respondents may not be representative of the population at large. Older recipients are more likely to participate than young adults. Those with strong opinions (pro or con) will send back their questionnaires; those who are uninformed or apathetic will not. Another concern may be length of time needed to obtain the required number of responses.

Telephone Surveys

Telephone surveys are another way to gauge consumer opinions. Potential respondents can be reached using random-digit dialing within particular exchanges or purchased phone number lists. However, many households have put their names on "do not call" lists, making it impossible to use this technique without the cooperation of a local government agency or nonprofit sponsor. Without such sponsorship, responses are not likely to be representative of the target population. In addition, a growing proportion of households rely solely on cell phones and do not have land lines; because cell phone numbers are portable, area codes and prefixes may bear no relationship to the phone owner's place of residence.

Response rates for phone surveys are usually higher than for those sent by mail but are still relatively low, and with caller I.D. allowing people to screen their calls, telephone surveying is becoming more difficult. Although telephone surveys can be completed more quickly than mail surveys, the process will still take a few weeks. Surveyors may have to call respondents multiple times before an interview is completed. Refusal rates are high, and

many of the sampled phone numbers will not be usable. In multiethnic trade areas, bilingual interviewers will be needed to ensure that a representative group of households is reached. As a result, most government agencies find that telephone surveys are too expensive. Despite their high cost, though, telephone surveys are often preferred over mail surveys because they generate more valid, representative results.

Internet Surveys

Internet surveys are growing in popularity as the percentage of households with access to the Web has increased. They are relatively inexpensive and fast to administer (popular programs such as those at Surveymonkey.com are very helpful), but the audience is limited to online customers who know about the survey. For example, existing tenants in an apartment building, office building, or business park are likely to have their e-mail addresses on file with management, allowing the owner to send an e-mail blast notifying tenants that a survey is underway and encouraging them to participate. Retail stores also have a captive audience—credit card holders or online shoppers. Community groups can reach members to learn how they feel about a proposed development.

Although it is easy to put a consumer survey on the Internet, the results suffer from the same limitations as mail questionnaires—responses may not be representative of the target market as a whole. Seniors and low-income households tend to be underrepresented.

Intercept Surveys

In-person intercept surveys are conducted at high-traffic locations, such as shopping malls, transit stations, arenas, or pedestrian-oriented urban business districts. Surveyors stop potential respondents and ask a series of questions or have shoppers fill out a printed survey form.

Intercepts are inexpensive and easy to administer but less reliable than telephone studies. It is almost impossible to ensure that respondents meet specific demographic or psychographic characteristics. Also, intercept surveys must be shorter than a questionnaire that is completed at home or by phone. Despite these limitations, intercepts can provide a reasonably reliable portrait of shopping center and business district patrons and their purchasing habits. The key is to structure the survey properly. Interviewers will need to be out at different times of the day, on both weekdays and weekends. Weather and season can also affect whether an intercept survey's results are truly representative of typical shopping patterns.

Qualitative Research

Qualitative research is usually conducted with a small number of respondents. Although it is not statistically projectable, this type of research allows perceptions to be probed in depth. As with quantitative surveys, the client's objectives and budget will determine how to conduct the research.

The focus group is the most common type of qualitative research because it provides a good balance between accuracy and cost. Respondents are screened to meet specific demographic and psychographic criteria. Groups are usually made up of ten to 12 participants. Multiple focus groups can be used to see variations in the perceptions and reactions of different targets. A professionally trained facilitator is usually hired to conduct the discussion. Clients can be present or observe the proceedings either on site or at a remote location using video or audio conferencing technology. Recorded sessions are also possible, provided that participants agree. After all the focus group sessions have been conducted, the moderator reviews the comments and provides a written analysis.

One-on-one interviews are the most expensive type of qualitative research to conduct because they are very time-consuming to administer. However, personal interviews allow control over respondent targeting and provide the greatest amount of time to probe issues in depth. After potential respondents have been identified by demographic and psychographic criteria, a professional firm should be hired to recruit the respondents. A trained moderator conducts each interview. After all the interviews are completed, the responses are analyzed.

Intercept interviews, like intercept surveys, are conducted at high-traffic locations such as shopping malls; they are the least expensive form of qualitative research. However, as with intercept surveys, they allow the least amount of control over targeting and selecting respondents, and they must be shorter than focus group sessions. Interviewers stop potential respondents and ask them to sit down for an informal discussion,

using a topic outline. To speed up the process, multiple interviewers might be used, which presents a risk of inconsistency because the method of questioning is conversational.

Here are some examples of how qualitative research can be applied to specific real estate projects:

- A residential builder can conduct focus groups with consumers who are potential buyers or renters, asking them about their space requirements or getting their reactions to possible architectural elevations, building materials, appliances, or color schemes.
- A retail developer can conduct intercept interviews with consumers (shoppers) and one-on-one interviews with potential tenants (retailers).
- An office and industrial leasing firm might use focus groups with potential tenants.
- A hotel can use focus groups with both business and pleasure travelers and then do one-on-one interviews with business travel managers regarding corporate accounts.
- A developer of a master-planned community can make use of focus groups with retail and office tenants, one-on-one interviews with homebuilders, and intercept interviews with homebuyers as they leave the sales center.

It is important to remember that any survey research, whether quantitative or qualitative, is a single component of a comprehensive market study and cannot replace the vital information that is gathered through the other market analysis techniques.

Documenting Historical Supply Trends and Current Conditions

The supply section of a market study looks at current conditions in light of past performance trends. In addition, key indicators for the local market area are compared with regional, metropolitan-area, or countywide data. The greatest detail is presented for those properties deemed to be most competitive with the subject site. The strengths and limitations of competitive buildings are assessed objectively, and the findings are presented in tables or property data sheets. Planned additions to supply are also discussed; the amount of space in the planning pipeline is compared with historical data to see whether future construction levels are sustainable.

The types of data to be presented in the supply analysis will vary depending on the land use being studied. In general, the following indicators are important in looking at metropolitan submarkets:

- the size of the current inventory (number of housing units, square feet of commercial, industrial or retail space, number of hotel rooms);
- how much the inventory has increased over time;
- number of units or square feet of space yet to be leased or sold in projects already under construction but not yet completed;
- current vacancy rates (including available sublet space for multitenant office and warehouse properties);
- sale prices, rent levels, or hotel room rates over time;
- anticipated near-term new construction; and
- long-term supply of vacant land that is zoned for the land use being examined.

Historical trends in the size of the inventory, average rents, and average vacancy rates should also be presented. The narrative should discuss how rents and vacancies have changed over time, average annual additions to the inventory, leasing activity (number of units or space leased each year), and annual net absorption (change in number of occupied units or amount of leased commercial space). Data limitations (and the cost of acquiring data) will dictate exactly which supply indicators receive the greatest emphasis.

To the extent possible, trends in the trade area should be contrasted with the larger citywide or metropolitan market. Steady absorption, rising rents, or lower vacancies can occur in a hot submarket (a cluster or sector within the region) even when area-wide indicators are negative. The opposite can also be true. An underperforming market could be the victim of localized overbuilding, or it may be affected by the relocation of one or more major tenants. The analyst must explain the reasons for any significant deviation from area-wide norms.

Breaking Down the Numbers: Property Types, Location, and Class

For rental apartments and commercial properties, three factors affect how performance trends are analyzed: the type of property, its location and

proximity to other similar properties, and its quality. To understand how a proposed development or an existing building is likely to perform in the future, the competitive supply must be examined in terms of all three factors:

- *Property type:* Residential properties are classified by tenure (for sale or for rent) and physical characteristics (single-family detached, townhouse, or condominium; walk-up or elevator buildings). Industrial property types include manufacturing, warehouse and distribution, flex space (containing office space as well as showrooms or distribution areas), and research and development (space that can include both offices and laboratories). It may be necessary to further divide both industrial and office properties as single-tenant or multitenant. However, supply inventories often ignore single-user buildings if they are owner-occupied. Hotels are classified as luxury, convention, limited service, budget, or all suite. There are many types of retail centers; space is classified based on design (enclosed or open air), size, or tenant mix.
- *Geographic submarkets:* Office buildings tend to cluster in downtowns or at highway-oriented suburban nodes. Some airports also have nearby concentrations of office space; in many markets, multitenant office buildings are located near major universities or hospitals. Hotel rooms will be clustered near a convention center, at major office or industrial nodes, at airports, or near tourist attractions. Industrial users often seek space near interstate highway interchanges, alongside major water ports, or near cargo airports. The market study should present data on the share of the metropolitan area–wide supply that exists in the submarket being studied, and how its other performance characteristics compare with the metropolitan area as a whole.
- *Class:* Office, industrial, and apartment buildings are classified as Class A, B, or C, depending on the property's age, quality, and amenities. A property does not have to be less than five years old to be deemed Class A, but it needs to be well maintained and retrofitted with the amenities desired by today's tenants. Market studies should break down the inventory by submarket and by class and focus the analysis on those property types that are most comparable to the subject development.

Analyzing Rents and Prices

Rent and price trends are a key part of the metropolitan-area or county market overview. Data on prices and rents in the submarket can be compared with broader trends, providing the context for evaluating the performance of the subject property and its nearby competitors.

When analyzing sales price trends in the metropolitan area or one of its submarkets, the analysis should provide data on average and median prices or rents, and how they have changed over the last five years or more. It is desirable to disaggregate prices or rents for new product from those for existing property if possible. Note that a submarket may have only a few sales transactions for a given commercial property type or class in any given year.

Each property type has unique aspects that should be noted in a price or rent analysis. For example:

- Prices for condominiums should be displayed separately from those for single-family homes if possible. Note if new home prices include the value of buyer upgrades.
- Sales of multitenant office or warehouse buildings should be distinguished from those with a single occupant.
- Unlike apartments or office space, hotel room rates fluctuate: weekdays versus weekends, high season versus other times of the year, group rates versus individual rates. As a result, hotel studies quote their equivalent of rents using *RevPAR*: average revenue per available room. RevPAR is calculated by multiplying the average quarterly or annual occupancy by the room rate.
- Rents for office, industrial, and retail properties are typically expressed as an annual rate per square foot (or per square meter, outside the United States) of leasable area. Measurable space varies by type of property. Office rents are typically calculated based on net rentable area, while shopping centers report gross leasable area. Apartment rents are usually shown on a monthly basis.
- For rental apartments, the market study should show the range of total monthly rents and indicate which utility charges, if any, are included in the rent. If possible, the range should be shown by type of unit (studio, one-, two-, or

three-bedroom). To account for the wide range of unit sizes in any given submarket, data should also be presented on a per-square-foot basis.

When comparing rents for individual competitors within a submarket, it is important to note what utilities, if any, are included in the quoted rent per square foot. Newer commercial buildings will usually write leases with *triple net* rents: units are metered separately, and tenants pay their own utilities and a proportional share of real estate taxes. Older commercial buildings may quote *modified gross* rents, perhaps including all utilities except electricity. Apartment buildings rarely use the terms *net* or *gross*, but these terms are used by the Census Bureau when reporting rent levels in a given geographic area. In the newest properties, tenants may pay separately for all utilities, parking, and even use of recreation facilities. In others, only electricity and cable television will be paid for by the renter. Enclosed shopping malls typically charge tenants for common area maintenance (CAM), again on a proportional basis relative to the amount of space each store occupies. Retail leases may also include *percentage rent*, which tenants must pay based on a share of sales above a certain base level.

Sources of Supply Information and Their Limitations

Numerous information sources are available to help market analysts get started in examining the supply side. Some cover area or submarket trends and provide little information on individual properties, while others focus on property-level information. Both types of data may be availalbe for a fee. Data vendors may provide current information only, while others have sophisticated models that allow them to forecast both demand and supply inputs, as well as performance indicators.

Brokerage Reports

Summaries of current and historic market conditions (inventory, rents, occupancy rates, absorption) are available for many larger metropolitan areas and their submarkets. Global brokerage and investment advisory firms such as Cushman & Wakefield, CB Richard Ellis, Colliers International, Grubb & Ellis, Marcus & Millichap, and others provide these data for the biggest markets in the United States, Canada, and some other countries.[14] With the globalization of real estate investment, dozens of markets in Europe, Asia, and Latin America are now covered, albeit not for every type of property. For example, (as of 2008) Grubb & Ellis publishes per-square-foot rents for a prototypical 3,000-square-foot retail storefront in 54 premier shopping districts in the United States and six in Canada, in places ranging from downtown Bozeman, Montana, to New York City's Fifth Avenue. Colliers International's research on warehouse properties covers more than 60 markets in 26 European nations.

Global brokerage firms have sizable research staffs that are responsible for monitoring inventory and performance trends. Information is updated quarterly, and some firms provide year-end summaries. Brokerages use this information as part of their marketing packages when representing properties offered for sale. They are able to combine area trend data with information on individual comparable buildings. Some brokerages cover only office and industrial properties, while others add retail or apartment data. Researchers can find a great deal of information on conditions by metropolitan area free of charge on the Internet, but detailed submarket reports and history may require paying a fee.

Definitions of the sizes and types of properties included in commercial broker inventories vary among the many firms that provide this type of data. Some firms count only buildings with at least 50,000 square feet or with multiple tenants, but others count single-tenant office and warehouse buildings in their inventories if they are not owner-occupied. Firms may count small office buildings but focus their industrial data on large warehouses with more than 100,000 square feet. Property class definitions are often inconsistent among sources and across markets. Others include only multitenant buildings or focus on structures over a certain minimum size.

For smaller markets, local brokers often provide important information, either in reports or through press releases sent to local newspapers and real estate trade publications. Local consulting or appraisal firms may sell more detailed project-by-project inventories, providing rent, unit mix, and occupancy rates, as well as listing project amenities. They may also report occupancy and rent averages by metropolitan area and submarket, and provide commentary on market trends. Individual

commercial and industrial properties currently available for sale or lease can be identified using LoopNet.com by entering the location and property characteristics that are of interest to the analyst.

Local firms will be very familiar with individual properties as well as marketwide conditions. However, relying solely on local brokers poses problems for analysts who must prepare reports for properties located in numerous metropolitan areas because methodologies and definitions will be inconsistent.

Consultants, Associations, and Trade Media

Organizations that represent real estate professionals can be useful sources of information on supply trends both at the national level and in individual metropolitan areas. These associations include the NAR, the National Association of Homebuilders (NAHB), the National Multi Housing Council (NMHC), the National Association of Industrial and Office Parks (NAIOP), hotel associations, tourism trade groups, and other organizations representing property niches ranging from manufactured housing to timeshare resorts. Some trade associations conduct surveys and sponsor research efforts that help market analysts better understand consumer and user preferences. The Urban Land Institute also commissions research on product design, location trends, and investment parameters.

Private Vendors

Since the 1990s, data vendors such as CoStar, REIS, and Torto Wheaton Research have greatly expanded the availability of information on apartments, commercial and retail projects, and multitenant industrial space.[15] For a one-time fee or through a subscription, analysts can buy current and historical data on area and submarket performance, or data on individual buildings within a particular submarket or meeting specified criteria such as size and age.

In addition to these sources, investment advisory firms, such as Property & Portfolio Research and Global Real Analytics use models to forecast demand, supply additions, absorption, and financial performance indicators.[16] These reports are available to clients on a subscription basis. With the globalization of real estate investment and the movement of U.S. developers into offshore markets, these firms are expanding the geographic scope of their coverage.

As with broker inventories, each private data vendor uses different criteria to define submarkets, property classes, and types of properties covered. For example, in its retail reports, REIS does not include regional malls or freestanding big-box stores but focuses on neighborhood and community centers with at least 10,000 square feet of multitenant space. The products available from the various data vendors and economic consultants also vary in their accuracy over time and across land uses. No two methodologies are identical. When the market analyst uses a particular source for projections, he or she should understand how the forecasts are developed and ask the vendor to provide information on the accuracy of its data over time.

Government Sources, Directories, and Lists

Directories of apartment complexes, office buildings, or industrial parks (published in magazine form and usually available online) provide an inexpensive way to get started, providing basic information on individual buildings. Economic development agencies often have lists of available blocks of space in privately owned commercial buildings. Agencies charged with promoting tourism or booking conventions and meetings will have lists of hotels in their jurisdiction and descriptions of their facilities, as well as information on publicly operated convention venues. For affordable housing or housing for seniors, lists are published by HUD, state and local housing agencies, and advocacy groups. These sources list the names, phone numbers, and locations of apartment complexes and may provide information on the types of units offered and amenities featured. Although listings can provide a road map for the market analyst, additional information must be obtained through field visits or telephone interviews.

The Importance of Fieldwork

Although the quantity and quality of statistical information on competitive supply is continually improving, even the best inventory reports cannot substitute for field observations. Seeing the subject property and its competition firsthand results in a more precise definition of the trade area. Preparing a thorough market analysis also requires "kicking the bricks"—determining how a competitor's location, image, design, amenities, and operations compare with the subject property.

A competitor's curb appeal—its architecture, building materials, landscaping, exterior signage and surrounding uses—draws potential tenants into the leasing office. For an office building, lobby appearance, interior signage, lighting, elevator systems, security, and other design elements also influence whether an older building can effectively compete with a new project. In a community shopping center, frontage visibility from the street, access and turn lanes from nearby arterial roads, exterior signage, and parking-lot layouts can make or break a project, and none of these things can be clearly understood without a site visit.

When time and budget permit, the market analyst should visit model apartments or vacant commercial spaces to observe room layouts, natural light, the quality of built-ins, and storage space. Inspecting older properties may have limitations. Some properties will have no vacant units to show. Others may not have floor plans or measurements readily available. Seeing model kitchens and baths tells the analyst whether the property has been maintained and renovated to be competitive with new units. The leasing agent should be asked if all units have been renovated in a similar manner, and if they have not, when the upgrades will be completed.

The market analyst should look at the tenant directory in an office building, shopping center, or business park to determine whether the property is leased by a few large space users or by numerous small businesses. The directory provides insight into occupancy in those situations where data are unavailable. Note the types of tenants present: are they national chain retailers or Fortune 500 businesses, or is the space occupied by individual entrepreneurs? Where questions persist, follow-up telephone calls to key building managers should be considered.

Interviews with building managers or leasing staff can be very helpful in understanding market dynamics, especially in areas where published data are limited in scope, too expensive, or unavailable. These conversations yield insight into the types of households being attracted to an apartment complex (young singles and couples versus empty nesters and seniors, or a mix of both), whether children are present, what attracts tenants to the complex, and their prior places of residence. Such knowledge helps in accurately defining the market area from which prospects are drawn and in determining a reasonable capture rate for a new apartment community.[17] Similarly, commercial real estate agents and building managers know about the types of tenants that are looking for office or industrial space—their space preferences, technical requirements, and parking needs.

Analysts will not be able to interview every building manager in the field. Time and budget constraints may intervene, and building staff will not always cooperate. Some building owners refuse to permit their personnel to show vacant units or divulge project-specific information to market analysts—especially if they represent potential future competitors. Vacancy rate and lease expiration information is especially sensitive, although asking rents will usually be shared. In some cases, analysts "shop" competitive properties by posing as prospective tenants either in person or over the phone.

Documenting Historical and Future Construction Activity

Accurately gauging the demand-supply balance requires careful consideration of the future construction pipeline and how it will differ from the recent past. For housing market reports, the average annual number of single family and multifamily building permits issued over the preceding five to ten years should be tabulated. (It is important to recognize that multifamily units could be for sale or for rent.) The market analyst should discuss any dramatic shifts in construction volume or structure size.[18] In most instances, these shifts will result from national economic cycles and changing consumer preferences. However, local zoning, land availability, and price and rent trends can also influence the type of housing being built. The local market area's capture of housing development activity throughout the county or metropolitan area should be highlighted.

Commercial and industrial properties already under construction will be among the most important competitors for a proposed development that has yet to line up financing and break ground. In areas with many visible construction projects, it is important to determine the size of these competitors at full buildout and how much of the space has been preleased or presold. Asking rents for space yet to be leased should also be included in the supply analysis.

Some local government agencies, such as economic development authorities or planning departments, periodically update lists of projects that have received planning approvals but have not yet been started. Where no such reports exist, conversations with planning officials are needed to clarify the size of the development pipeline and determine when planned projects will begin construction. This can be a time-consuming effort in a trade area or submarket with numerous small jurisdictions.

The analyst should consider the amount of well-located, properly zoned, undeveloped land that could be competitive with the subject development in the future. A new project located in a built-up community with little or no vacant land will face less competitive pressure than one surrounded by sites where similar or identical buildings might be constructed two or three years hence.

Local government agencies and the U.S. Commerce Department publish monthly and annual data covering residential building permit issuance, providing information on both the number of units permitted by size of building and the estimated value of the construction. (Construction value information is less accurate than permit counts, especially for single-family homes.) Suburban markets often cross municipal boundaries, requiring that the analyst collect very recent permit data from municipal, county, or regional agencies. Builders take out permits shortly before construction begins. However, permits provide no indication of when construction will be completed, and not all units for which permits are issued actually get built.

Local building permit data are less useful when tracking commercial and industrial construction. Nonresidential building permits provide little detail regarding the type of development or its timing. In the past, real estate magazines, newspaper supplements, and economic development agencies tracked construction announcements and project openings. These sources are still available to the market analyst, but they are time-consuming to find and assemble, so the results can be spotty.

Construction pipeline data can be purchased through vendors such as REIS and the F.W. Dodge Company. These data include projects of all sizes, both single user and multitenant. Dodge data are also sold through private consulting firms such as Torto Wheaton Research.

Presenting Findings

Market analysis is as much an art as a science, requiring judgment and vision as well as facts. Once the analyst has completed fieldwork, collected data, and prepared maps and tables, he or she must then synthesize the findings and reach conclusions regarding a proposed project's marketability or the future performance of an existing property.

Market studies are more easily understood when they are accompanied by summary tables that highlight the key characteristics of the competition, both existing and under construction. Such tables should provide the name and address of competitive properties, age (or year built), overall size (units or square feet), the size of units or lots offered, rents, whether utilities are included, and the occupancy or vacancy rate. The analyst may also include comments on the properties, location advantages, and tenant mix. The table of competitive projects should be keyed to a map that shows the locations of the subject property and its competitors.

Digital photography allows the market analyst to easily insert pictures of competitive buildings (as well as the subject property and its surroundings) into the report. If the subject property is planned but not yet built, a color rendering of the building(s) will allow readers of the report to compare its visual appeal with that of its competitors. Many market analyses also include aerial photographs, which provide the reader with a sense of the site's surroundings and access to major roads, as well as its proximity to competitors. Mapping software and products, such as Google Maps, are useful tools for both research and presentation of findings.

Notes

1. The NAICS replaced the Standard Industrial Classification System, which was used to tabulate employment by industry until the late 1990s. The NAICS was developed jointly by the United States, Canada, and Mexico. Classifications range from broad industries listed in figure 3-1 to detailed six-digit industries. For example, retail stores fall under NAICS codes 44 and 45. Furniture and home furnishing stores carry code 442, but a floor covering store would be counted as 44221.

2. www.bls.gov/news.release/ecopro.toc.htm.

3. Moody's Economy.com offers a product called Detailed Employment Forecasts, with 20 years of history and ten years of projections for two- and three-digit NAICS codes. These data are available for counties and metropolitan areas. http://www.economy.com.

4. The U.S. Census Bureau's County Business Patterns counts employment at government-operated hospitals but not at the Post Office, pension fund, or trusts. For more information on coverage and data availability, see www.census.gov/epcd/cbp/view/intro.html.

5. The BLS's QCEW program is a cooperative federal and state effort that tabulates employment and wage information for workers covered by state unemployment insurance laws and certain federal workers covered by the Unemployment Compensation for Federal Employees (UCFE) program. Initially collected at the county level, the QCEW program provides aggregate annual data on the number of establishments, monthly employment, and quarterly wages, by NAICS industry groups, sectors, and supersectors and to higher geographic levels (national, state, and MSA). Coverage is limited for self-employed workers and agricultural industries, and confidentiality protections apply at the county and metropolitan-area levels. The interactive Web site can be accessed at www.bls.gov/cew/cewlq.htm.

6. Labor force statistics do not count military personnel on active duty or residents of nursing homes. Generally they count people age 16 and older, who are then classified as employed or unemployed. The data are taken from household surveys.

7. www.bls.gov/lau.home.html.

8. Other survey questions ask workers if they wanted to work more hours, but these data are not published for metropolitan areas or counties.

9. Such conversions include shuttered factories, warehouses, office buildings, hotels, schools, and hospitals in urban neighborhoods. Locations or structures no longer considered usable for commercial or institutional uses have been transformed into successful loft apartments.

10. *Average income* is the total reported income from all sources for the entire trade area, divided by the number of households. *Median income* is the point at which half the households are earning less, and half are earning more.

11. Household income statistics include single people living alone and unrelated people living together. Average and median household incomes tend to be lower than those for families (which consist of two or more related people living together).

12. The BLS's home page for its Consumer Expenditure Survey can be found at www.bls.gov/cex. Standard data tables that show income and expenditures by different demographic groups are published annually.

13. See the Census Bureau's home page for Housing Vacancies and Homeownership statistics, www.census.gov/hhes/www/housing/hvs/hvs.html.

14. www.cushwake.com, www.cbre.com, www.colliers.com, www.grubbandellis.com, www.marcusmillichap.com/research.

15. www.costar.com, www.reis.com, www.twr.com.

16. www.ppr.info, www.graglobal.com.

17. The analyst should be aware that fair housing laws limit how much information apartment leasing staff or home sales agents can share about tenant characteristics. Visual observations of toys, bicycles, or playground use, for example, will indicate the presence of children.

18. Municipalities can be inconsistent in how they classify units as single family or multifamily, especially for townhouses or large rental complexes with multiple buildings.

NorthWest Crossing, in Bend, Oregon, is a master-planned community developed using traditional neighborhood design principles.
Kevin Kubota

Chapter 4

Residential

There are many situations in which a residential market analysis is necessary and useful in guiding decision making by developers, lenders, investors, and public sector agencies. For example, a market study may be needed to

- identify residential development opportunities;
- provide input for site planning, building and unit design, or financial analysis;
- conduct a due diligence review for a loan application, acquisition, or equity investment, or in support of a grant application made to a public sector agency;
- monitor the performance of a completed project relative to its competition;
- reposition an asset that is not performing up to expectations; or
- guide public sector housing policy and its effect on land use plans, zoning, and incentive programs.

Analyzing the residential development market requires an understanding of consumer demand and supply trends. Demand is calculated from an understanding of population and household demographics, which are driven by employment, location preferences, and lifestyle choices. Supply analysis includes surveying existing and planned projects in terms of building styles and community types, density, unit layouts, amenities, pricing, and occupancy or absorption. When assessing the for-sale market, mortgage terms and the availability of loan funds also play an important role in determining whether consumers will be able to buy what the market offers.

A developer usually starts with certain assumptions. At times, a developer may have a consumer profile in mind and need to find what type of product will be most appealing. More often a developer begins with a product type (especially one that has been successful for the company in the recent past) and asks the market analyst to determine whether a sufficient number of income-qualified households are likely to be interested in this product. The analyst then needs to match demand with competitive supply by studying existing homes or apartments, projects currently being marketed, and the future development pipeline.

Product and Community Types

The U.S. housing market encompasses a wide range of product types, in terms of physical structure, tenure, and location as listed in the box on page 56. Each housing type can be found in a variety of sizes, floor plans, elevations, and price or rent ranges.

Despite many innovative and attractive new concepts for multiunit buildings, Americans' preference for single-family homes continues. From 2001 through 2007, 82 percent of newly completed units were detached homes.[1] This distinguishes the U.S. and Canadian housing markets from those of most other developed nations, where multiunit buildings are still the norm. According to the Census Bureau's 2007 *American Housing Survey* (AHS), detached units make up 62.7 percent of the total

Housing Product Types

Community Types

- Master-planned communities and new towns
- "Greenfield" subdivisions at the urban fringe
- Infill projects, redevelopment, and adaptive use of structures in mature communities
- Age-restricted rental, entry fee, and for-sale retirement communities
- Affordable housing (with income restrictions for prospective buyers or renters) and market-rate units (with no restrictions)
- Niche products, such as college housing, urban live/work spaces, golf course communities, water-oriented development, and units designed for persons with disabilities or health issues
- Seasonal or second-home communities and timeshare or fractional ownership

Housing Types and Construction Methods

- Single-family detached houses, attached duplexes, townhouses
- Multifamily buildings (walkup, mid rise, and high rise)
- Mobile homes
- Stick-built, modular, and manufactured (factory-built) construction

Tenure of Residents

- Fee simple, condominium, and cooperative ownership
- Rentals
- Homes built on ground leases
- Timeshare or fractional ownership

housing stock and 64.5 percent of all occupied units (see figure 4-1).[2] In Canada, 56.7 percent of all units are single-family detached.[3] Of new units completed in the United States between 2001 and 2007, single-family detached homes captured a 70 percent share.

Single-Family Subdivisions

Conventional single-family subdivisions have accounted for the largest percentage of new home building since World War II. Project sizes vary but what distinguishes the traditional subdivision is that homes sit on individual lots, with the size of front, rear, and side yards controlled by local regulations. Most single-family developments are constructed on greenfield sites, but there are many examples of small single-family infill projects in cities and older suburbs.

In moderate- to middle-priced subdivisions, a single homebuilder will construct all the units. A single neighborhood can contain both homes built "on spec"—constructed before a buyer is signed—and semicustom units selected by the homebuyer from plans or models, often with a choice of different exterior elevations for each model. Prices will vary based on the size of the unit, its features, and a range of upgrades selected by the purchaser. New homes in such developments may be marketed directly by the builder or developer or through local real estate agents.

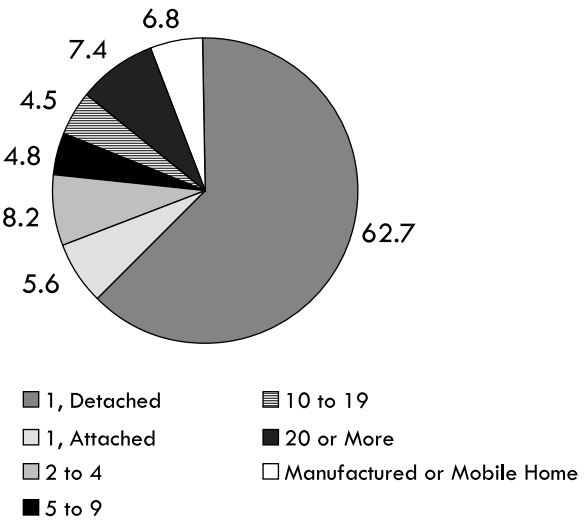
Luxury communities cater to a small cohort of affluent consumers, as locations of either primary or secondary residences. Such communities range from upscale downtown condominium buildings in major financial centers to estate-lot developments in the distant suburbs or second-home communities in resort locations. Custom home developments in suburbs will have fewer units and often feature larger lots than middle-priced projects. Multiple builders often buy lots within a single luxury home project and market their design and construction expertise directly to prospective buyers.

Although the Census Bureau and private data providers now estimate the number of households with incomes greater than $200,000, this upper limit may be insufficiently detailed to provide a true picture of affordability. As indicated in chapter 3, income estimates alone do not paint a complete portrait of household wealth. Analysis of the market potential for a luxury development requires a clear understanding of target households and their preferences; direct consumer research will be needed.

Master-Planned Communities

In parts of the United States, particularly in the west and south, master-planned communities are a common development type. Such communities usually include a range of housing types along with recreational amenities, supporting retail, and other commercial development. Some master-planned communities may encompass several thousand acres and may include schools, libraries, other public facilities, and a substantial amount of office and retail development—enough that they eventually become recognized as cities in their own right. Irvine, California, and Reston, Virginia, are two

Figure 4-1
Share of Total Housing Stock by Units in Structure (%)



Source: U.S. Census Bureau, *American Housing Survey: 2007*, table 1A-1.

such examples. More recently developed examples are Summerlin, outside Las Vegas, and Anthem, near Phoenix. In these communities, the amenities package is a consideration for potential buyers, so the market analyst needs to study it along with the features of the individual homes.

New urbanist communities are a specific type of master-planned community that emphasizes compact, mixed-use, pedestrian-oriented site plans. Since the 1990s, new urbanist communities have grown in number. Residents trade larger lots for a more urban lifestyle. Tree-shaded streets are usually narrow and arranged in grids, with short blocks containing a mix of housing types and supporting commercial and institutional uses in street-facing buildings.

Infill Development: Urban and Suburban

Increasingly, as prime developable land becomes scarce, developers are turning to infill sites for new projects. Infill parcels may have been skipped over during previous waves of development be-cause they were physically difficult to develop, lacked full utility service, or had delinquent tax obligations or because ownership could not be clearly traced or owners could not be convinced to sell. Such properties may be totally vacant or have derelict buildings that need to be cleared before redevelopment can proceed.

The advantages of infilling include fewer competitors; the ability to tap into existing infrastructure, community services, and facilities; and a preexisting market—the residents of the surrounding established neighborhoods. Infill sites are typically much smaller than suburban greenfields, so absorption periods may be shorter. However, infill development can be difficult. Often developers are challenged by the need to establish a legal justification for redevelopment, assemble small parcels that have multiple owners, remove contaminants, demolish existing structures, or provide additional public services and infrastructure. Nearby residents may object to redevelopment activity that increases neighborhood density or traffic. Nevertheless, many developers are finding that the rewards outweigh the difficulties.

Second-Home Communities

Second-home markets depend on discretionary buyers. The NAR reports that there are 6.8 million second homes in the United States (5.3 percent of all housing units), with 21 percent of owners pos-

sessing multiple properties in different locations. Property types include luxury single-family homes, condominiums in beachfront or ski communities, lakefront and oceanfront properties with boat slips, golf course communities, and modest cabins in rural locations.

Demand can be regional, national, or even international in scope.[4] The second-home market is typically made up of households whose heads are in their 40s and early 50s with incomes in the top 10 percent of all households. However, only a small portion of affluent middle-aged households actually do buy second homes. Accessibility can be a major factor in the purchase decision. At the high end of the market, access by air and even proximity to small airports that serve private planes are important considerations. For most of the market, however, driving time from the owner's primary residence is a pivotal consideration.

Even among the target age and income groups, the motivation for buying a second home varies:

- Typically, buyers are drawn from large metropolitan areas where the stress of everyday life is an additional motivation to own property in a different environment.
- Families with children may buy a second home so that they can pursue outdoor sports or hobbies or have an opportunity for interaction that is lacking during the work week. These households will use their second home on weekends and during vacations.
- Some buyers expect to use their second home as an eventual retirement location.
- A portion of the second-home market buys a lot in anticipation of building sometime in the future. Lot buyers are attracted by the quality of a golf course, associated club facilities, or other amenities in a private community and purchase a lot primarily to secure access to the private club facilities. Some of these lot buyers may never build a home; rather, the lot is sold when the owner's interests change.
- Preretirees are attracted by a community's recreational amenities but are also concerned about its social fabric. Privacy and security issues assume greater importance in view of the likelihood that they will establish permanent residence in the community. In addition, although preretirees are more likely to buy in a less established community, they are still interested in climate, the quality of the area's medical facilities, convenience shopping and services, cultural opportunities, the cost of living, and learning opportunities.

While resort-home markets generally track closely with the economic cycle, their swings are often more severe, creating significant hazards for the resort developer. Careful consumer research is required. Identifying the sources of demand for second homes, as well as the comparables, can be a daunting task. Sales managers at newer projects as well as real estate agents serving destination locations can be helpful in identifying locations that generate potential buyers, as well as their demographic characteristics. In conducting market studies in resort areas that are popular with second-home buyers, it is important to distinguish owner or user demand from demand by investor buyers who rent out these homes on a seasonal, monthly, or even weekly basis. Because second-home market analysis requires unique expertise, developers tend to hire firms that specialize in these projects.

Affordable Housing

The need for affordable housing generally exceeds the supply of sound units. Market studies must define the eligible population based on criteria that are dictated by government funding programs. The federal low-income housing tax credit program (LIHTC) produces the largest number of new and rehabilitated rental units. Occupancy is limited to households whose incomes are less than 60 percent of a metropolitan area's median income, adjusted for household size. However, some units within an LIHTC project may be restricted to households with incomes as low as 30 percent of the area median. Also, many LIHTC properties are targeted to households age 55 or older, others to age 62 and older, and yet others to those who need supportive living services.

State housing finance agencies oversee their LIHTC programs, and competition for the credits that provide the greatest subsidies is intense in many locations. These state agencies add requirements to the standard market study. They want to be sure that local markets are not saturated with affordable units serving the same target groups; they may be issuing bonds for the project (and worry about defaults); and they want to avoid the

neighborhood instability that can result from overconcentration of low-income families. In addition, LIHTC analyses must demonstrate that rents for the proposed affordable units will save money when compared with units in the unsubsidized inventory. Quality differences between new LIHTC units and existing low-rent stock must also be addressed.

States and local governments also have affordable or workforce housing programs for prospective homeowners, oriented almost exclusively to first-time buyers. Projects vary in scale and can include a mix of housing types. Generally, buyers must have incomes that fall between 80 percent and 120 percent of area median income. The nature of incentives provided to both developers and buyers is determined by state and local policies and programs.

Age-Restricted Housing

There are many types of housing for seniors. Those who are able to live independently have many choices, both rental and for sale.

Rentals for seniors available in the private market generally offer one or two bedrooms and full kitchens in buildings that include lounges, libraries, and activity rooms. Services range from scheduled transportation to social and recreational activities, wellness programs, and (sometimes) meals and housekeeping, either optional or included in the rent. This product is targeted primarily to middle- and upper-income households age 62 and older, although most residents are at least age 65 and in good health. Properties with affordable rents, developed using LIHTC or other government programs, have income as well as age restrictions.

In the for-sale segment of the market, active adult communities offer traditional homeownership (in single-family detached homes, townhouses, or elevator condominiums) without maintenance responsibilities for households that have at least one member who is age 55 or older. These communities often have extensive recreation amenities, such as tennis courts, trails, and clubhouses with a pool, gym, and space for social events. Some have golf courses as well.

Older seniors may be drawn to congregate housing or continuing care retirement communities (CCRCs) that include a variety of housing types and the same mix of facilities and services found in active adult rentals or ownership communities. Congregate properties usually offer personal care, laundry services, housekeeping, emergency call systems, and at least one daily meal, at an additional cost. They may require an entry fee (in many cases, partially refundable depending on how long the resident lives in the community) in addition to a monthly maintenance cost. The resident furnishes the apartment, which is equipped with a full kitchen. Many congregate buildings are affiliated with local hospitals and nursing homes. The typical resident of congregate housing is a single woman, age 75 to 85, who is generally in good health and able to live independently.

In a CCRC, independent living, assisted living, and skilled nursing are available in a campus set-

The Devries Place Senior Apartments project in Milpitas, California, is the result of a partnership established between the city and a nonprofit developer to provide mixed-income housing for seniors. ***Misha Bruk***

ting. Residents can move within the community as they need more supportive services. CCRCs usually require payment of an entrance fee or endowment, as well as monthly charges. Some facilities provide "life care" commitments; others provide only a guarantee of admission to buildings or units that offer more intensive care as needs change. CCRCs appeal to both couples and singles who are still in good health but concerned about their future needs. Most CCRCs are sponsored by nonprofit religious denominations or fraternal groups. Increasingly, universities are sponsoring such projects as a way to attract alumni who want to take advantage of classes and cultural offerings.

Assisted living residences are smaller buildings (typically less than 100 units); they offer 24-hour supervision and assistance for frail elderly persons who need help with bathing, dressing, medication administration, mobility, or other activities of daily living. Single-occupancy or shared rooms may come furnished or unfurnished. Most rooms are rented on a daily or monthly basis, with charges based on the extent of personal assistance needed by the resident. Three meals a day are usually included, along with housekeeping services and activities. Units may have small kitchenettes.

Assisted living is proving to be an acceptable—and more affordable—alternative to nursing homes for seniors who do not need skilled nursing. Increasingly, assisted living facilities offer specialized floors or wings for people who have Alzheimer's disease or similar illnesses. A relatively small proportion of assisted living facilities serves only patients with Alzheimer's. In most cases, assisted living residents or their families must have sufficient resources (income or assets) to afford the monthly cost, which typically is significantly higher than for more standard housing. A new initiative in several states uses LIHTCs to build affordable supportive living facilities, with Medicaid paying for needed services.

It is easy to overestimate the demand for housing of all types for seniors. It is important to understand this age cohort, rather than to rely on generalizations:

- Most seniors prefer to age in place (living as long as they can in the homes they owned when they were younger). As a result, they are less mobile than younger households. According to the Census Bureau, less than 5 percent of people age 62 and older moved between 2006 and 2007.
- For a person in good health, the decision to move to a retirement community is a lifestyle choice, not a necessity.
- Some seniors who are willing to move to a smaller home or a maintenance-free situation do not like age-restricted communities.
- Others move in with relatives when their health deteriorates and they can no longer live independently. This may be a family preference or a financial reality, because housing for seniors can cost thousands of dollars a month depending on the extent of services provided.

Absorption periods for rental retirement housing are longer than for conventional new apartment complexes. Studies have shown that seniors make far more visits to retirement buildings before making a decision to rent or buy than do typical apartment tenants or condominium buyers. Because seniors tend to be homeowners in most markets, they must sell their existing homes before moving, which can be a problem when the for-sale market is weak. It can also be a very emotional decision that takes a great deal of time, possibly involving other family members.

Determining effective demand for housing for seniors requires looking not only at the number of seniors in the market area and their current incomes, but also at their assets and the value of the homes they would sell before moving. The diversity of product, services provided, and pricing plans also poses challenges when examining the comparative strengths and weaknesses of competitive properties in a given area. For example, per square foot rents must be adjusted to account for variations in meal plans; some facilities include maid service in the rent and others do not. As is the case with second-home communities, developers and sponsors often call upon specialists in seniors' housing to prepare their market studies.

Market-Rate Rental Developments

Conventional rental apartments take many forms, ranging from two-story walkups to mid-rise and high-rise buildings in urban areas or suburban downtowns. Because of the high cost associated with installing elevators, mid- and high-rise products tend to dominate in areas where multifamily sites are scarce, land prices are high, and rents can justify the costs. The supply of apartments in-

cludes older complexes, many of which are rated as Class B or C and would not be truly competitive with new products. Renovating an older property, however, sometimes brings it up to current standards, making it competitive with new buildings. Units in the newest communities may be smaller than those in older complexes, but new apartments have more amenities and features, both inside the unit and in common areas shared by all residents.

An outdoor swimming pool and a clubhouse (often with exercise equipment, party room, kitchen, fireplace, business center, and media center) are typical of the newest suburban rental complexes. Organized social gatherings such as movies or happy hours may take place at the clubhouse. In more upscale apartment communities, covered parking (single-car garages tucked under the units or freestanding) or carports are frequently provided at an additional cost to the tenant. Unreserved outdoor parking spaces are usually free.

In urban areas, parking is typically provided in garages, underground, on lower floors, or occasionally in a separate building. In very dense downtowns with strong public transit service (as in Manhattan), no parking may be provided at all, even in very high-end buildings. Amenities can include a well-equipped gym, a rooftop or indoor pool, concierge services, and a business center.

College Student Housing

Privately owned and managed campus housing is a product distinct from university-owned dormitories or conventional apartments in college towns. While new student-oriented apartments may look like conventional rentals from the outside, the properties are leased in a very different way—by the bed rather than by the unit. Units are usually leased fully furnished, and utilities—including cable television and high-speed Internet service—are frequently included in the rent. These projects have amenities not found in dormitories or older rentals found near campus—full kitchens in the units, exercise rooms, and even swimming pools. The proportion of units with three or four bedrooms is far higher than in most apartment complexes, and the rents per square foot are higher.

Demand for campus housing depends on a number of factors: enrollment trends at the university; the availability of university-owned dormitory

Features Found in New Multifamily Communities

Community Amenities

- Basketball, tennis, or sand volleyball courts
- Pools and spas
- Playgrounds (in communities with children)
- Media rooms
- Billiard rooms
- Business centers (albeit smaller than ten years ago)
- Roof gardens and decks
- Concierge services, including plant watering, dog walking, dry cleaning pickup and delivery, and grocery shopping
- Web-based communication with management, including online rent payment and maintenance requests

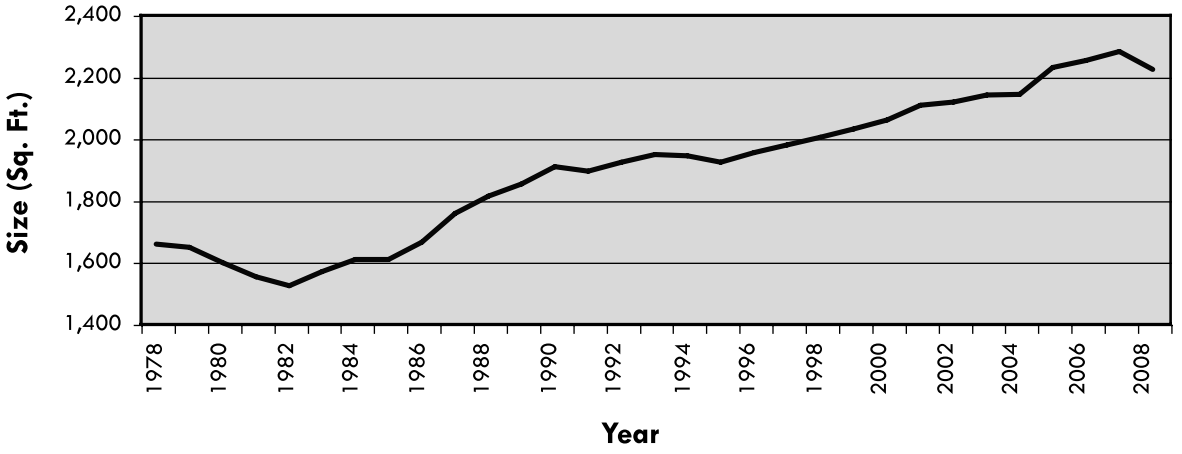
Technology Amenities

- In-unit alarm systems with closed-circuit television and Internet monitoring
- Community-wide WiFi
- In-wall speaker systems with theater-quality sound
- Units prewired for multiple telephone lines, cable television, and high-speed Internet service
- Business centers using "smart card" systems

Unit Features

- Private entries
- Direct-entry garage parking
- Nine-foot ceilings with crown moldings
- Bay windows and skylights
- Better soundproofing
- Two-level units
- Hardwood or simulated wood floors
- Real or simulated granite countertops
- High-end appliances
- In-unit, full-size laundry facilities
- Patios and balconies with secure storage areas
- Keyless entry systems

Figure 4-2
Median Size of New Single-Family Homes Completed, 1978–2008



Source: www.census.gov/const/C25Ann/sftoalmedavgsqft.pdf.

beds (which can cost less than rooms in private apartments); the college's housing policies (underclassmen are often required to live in university housing); the cost, availability, and quality of older private housing options in the community; and the willingness of parents to pay for upscale accommodations for their children.

Despite rising enrollments nationwide and the shortage of dormitory beds at some universities, demand for college housing is not recession-proof. Although college enrollments tend to rise during recessions as young people without jobs decide to improve their skills, parents who are facing financial constraints may be unwilling to pay the extra cost associated with better-quality housing.

Characteristics of Single-Family Homes

Home size is one of the major determinants of price. When comparing competitive projects, the market analyst examines not only the base sales price (plus extra charges for upgrades and options) but also the price per square foot or per square meter. In some countries, prices are expressed on a per room basis. Figure 4-2 shows trends in the median size of new single-family homes built from 1978 to 2008 in the United States. New home sizes were fairly stable between 1978 and 1985, and then began to increase. By 2007, the median new detached home had 2,277 square feet. The figure also shows that the median size trended downward in 2008 in response to the recession; many observers suggest that smaller homes will be more popular going forward, as occurred during the economic downturn of the late 1970s and early 1980s.

Table 4-1
Selected Characteristics of New Single-Family Homes (%)

	1976	1986	1996	2006
Central air conditioning	49	69	81	89
Four or more bedrooms	23	20	31	39
Two and a half or more baths	22	33	49	59
One or more fireplaces	58	63	62	53
Two or more stories	25	44	47	57
2,400 square feet or more	12	18	30	44
Gas heat	39	47	69	62
Heat pump system	—	29	23	33
Two-car or larger garage	59	60	78	83

Source: U.S. Census Bureau, Characteristics of New One-Family Houses Completed, www.census.gov/const/www/charindex.html.
Note: — = Not available.

Single-family homes are changing in other ways as well. Construction statistics reflect an ever-evolving mix of building materials, heating systems, interior designs, kitchen appliances, bathroom amenities, and—increasingly—"green" features. Table 4-1 compares the characteristics of new single-family homes completed between 1976 and 2006.

The table shows that, over time, new houses have tended to include more bedrooms, baths, and attached garage spaces. Although the Census Bureau does not collect statistics on home office spaces, having a den or private office is an increasingly popular feature in new units. Formal living rooms have given way to large, open family rooms with a view of the kitchen. Heating, ventilating, and air-conditioning (HVAC) systems (and the fuels that power them) evolve based on energy prices and ever-improving technologies.

Not all luxury features remain popular over time. Heightened awareness of home energy consumption has resulted in a smaller share of new units equipped with fireplaces, which are generally an optional feature. Ceiling heights, which soared in the 1990s, are now lowering in response to the high cost of heating large spaces.

Both home and lot sizes are getting larger, despite the high cost of land. According to the Census Bureau, the median lot size for homes sold in 2007 was 16,864 square feet, compared with 10,000 in 1990. Some communities use their zoning ordinances to limit residential development by requiring larger lots.

New home features vary by region and location. In the Northeast, two-story homes dominate, but they are less common in Florida. In the Midwest, most new homes have basements, but this is atypical in other parts of the country. Stucco exteriors are very common in the West, whereas brick is common in the East.

Manufactured homes—shipped as a completed unit for on-site installation or built with modular components—accounted for 3 percent of new single-family homes completed between 1998 and 2007.[5] Manufactured and modular homes remain popular in rural counties and in affordable for-sale projects geared to retirees. Long thought to be oriented to transient population groups, manufactured homes gained respectability as unit sizes grew larger and more amenities were provided. Increasingly, manufactured homes are found in professionally managed projects where the resident buys the unit but rents the land (often referred to as a "pad") from the community operator. Management provides security, common area maintenance, lighting, and playgrounds. Today, modular components are being used in multifamily construction, in affordable single-family homes, and even in some upscale homes.

Characteristics of Units in Multifamily Buildings

Multifamily dwellings have also increased in size. The median new multifamily unit completed in 2000 had 1,039 square feet; by 2007, the median size had grown to 1,192 square feet. For multifamily units built for sale, the typical unit is even larger (1,472 square feet in 2007).[6] Typical sizes for new suburban garden units for rent are 600 to 800 square feet for one-bedroom, one-bath apartments and 875 to 1,100 square feet for two-bedroom, two-bath units. Downtown units may be smaller or larger, depending on whether the luxury market is being targeted.

Upscale buildings in both urban and suburban neighborhoods may start as rental properties but are designed and sized to be attractive candidates for eventual conversion to condominiums. When reviewing plans for a rental project, market analysts need to consider that condominium conversion, rather than outright sale of the property, may be considered as an exit strategy for a project's original investors.

Small buildings still account for the majority of new multifamily development. Building styles range from a two- to four-flat building on a single lot to a rowhouse with six homes or a suburban garden apartment complex with multiple buildings. In urban locations, the owner of a two- or three-flat building may occupy one of the units and rent out the other(s), providing an income stream to help pay the mortgage. Infill development of this type has been seen in older cities in the Northeast but is less common elsewhere. Garden apartment buildings typically have 12 to 18 units on two or three floors; these buildings lack elevators, thereby keeping costs down.

As table 4-2 shows, the characteristics of new units in multifamily buildings can be very different depending on whether the buildings are intended

Table 4-2

Selected Characteristics of Newly Completed Multifamily Units by Intended Tenure, 2007

	Built for Rent	Built for Sale
Median size (square feet)	1,080	1,472
In four-story or taller buildings (%)	25	53
In buildings with 50 or more units (%)	29	39
With three or more bedrooms (%)	15	30
With two or more baths (%)	50	76
Townhouse design (%)	4	5

Source: U.S. Census Bureau, www.census.gov/const/www/charindex.html#multiunit.

for rent or for sale. Units built for sale tend to be larger, with more bedrooms and baths, and in taller buildings with elevators rather than in walkup structures.

Views can be a primary consideration in designing and pricing high-rise units, with upper-level units commanding higher prices. An outstanding view can add large premiums to the rents or sale prices of units. Desirable features on or adjacent to the property can also boost price points. In a golf course community, units with views of the course are priced higher than those without views. The same is true for waterfront buildings, especially in projects with boat docks or beaches.

Unique to multifamily development is that all major design decisions must be made upfront, usually at least 12 to 18 months prior to the time when marketing and leasing begins. The timeline for high-rise buildings is even longer. In contrast, single-family homebuilders have the opportunity to adjust their product based on which models are selling best and which features or amenity upgrades are purchased most often.

Housing Tenure

More than two of every three U.S. households (68 percent) own their homes; homeownership is equally widespread in Canada. Nationwide, homeownership rates rose steadily between 1994 (64.0 percent) and 2005 (68.9 percent), only to drop over the next three years as the for-sale market began to weaken. By 2008, only 67.8 percent of U.S. households were owners. Data collected by the Census Bureau from 2001 through 2008 show that only 13 percent of newly completed units were in multiunit buildings intended for the rental market during this period.[7]

The decision to buy a home reflects many factors, related to finances and lifestyle:

- the characteristics of available homes, both new and existing;
- asking prices and price trends;
- the availability of mortgage funds and mortgage terms (required downpayment, mortgage duration, interest rate, whether interest rates are fixed or adjustable, whether the lender requires mortgage insurance);
- the willingness of the household to take on responsibility for maintenance and repairs;
- whether the household has the required downpayment, funds to cover closing costs (fees for title search, appraisal, attorney), and sources of income sufficient to carry the mortgage;
- expectations regarding job security and mobility; and
- expectations regarding the potential for price appreciation over time.

In past decades, a homebuyer typically had to make downpayments of 10 to 20 percent of the sales price and obtained a 30-year mortgage with a fixed rate of interest through a local bank or mortgage broker. (A buyer who could put down only 10 percent of the purchase price needed to obtain private mortgage insurance or take out a loan insured by the Federal Housing Administration.) In the mid-2000s, homebuying was spurred by the availability of mortgage loans at historically low interest rates. Downpayment requirements were loosened as available capital sought seemingly secure mortgage investments in a rising market and as "teaser" adjustable-rate loans made ownership feasible for many more households, at least for a few years.

While millions of Americans were able to become homeowners between 2004 and 2006, easy credit resulted in widespread lending abuses, particularly poor-quality underwriting and failure to verify employment and credit history. Many buyers failed to understand the financial implications of adjustable interest rates, leaving them vulnerable to delinquency and foreclosure when they could no longer meet their mortgage obligations. At the same time, ris-

In the Silver Lake neighborhood of Los Angeles, Maltman Bungalows is a rehabilitation of a 1926 development of 17 homes. ***Mott Smith***

ing home prices drew investor-buyers into many markets, especially in second-home, resort, and vacation areas in Florida and Arizona, and in Las Vegas. Construction levels in these locations exceeded the historical levels needed to accommodate household growth and replacement demand. Price appreciation soon came to an abrupt halt. Not surprisingly, homeownership rates began to drop once lending standards tightened, a trend that is likely to continue through at least the end of the decade.

Typically, when stricter residential lending standards are in place, the result is a tight rental market because households that would like to buy are unable to do so and tend to remain longer in rental apartments. At the same time, homeowners who cannot keep up their payments lose their homes or have to sell. In theory, apartment vacancies fall and rents increase as demand for rentals grows; apartment buildings become even more attractive investments. However, a large inventory of unsold new homes and foreclosed properties can create a shadow rental market. Owners will consider dropping the rent to generate income, even if the rent does not fully cover the mortgage payment and other expenses. This is especially true for investor-owned properties. In essence, the overhang of single-family homes and condominiums (builder inventory, investor-owned units, and foreclosed homes of all types) competes with units in rental apartment buildings. In areas where the for-sale housing inventory is unusually large, the shadow rental market must be considered when conducting an apartment market analysis.

Table 4-3

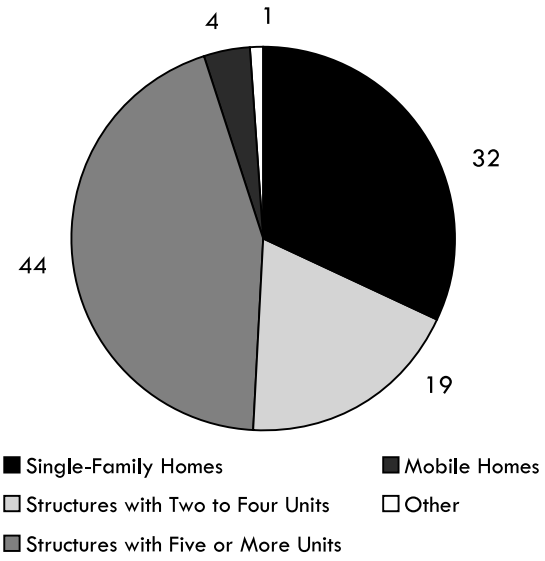
Renters as a Share of Total Households by Age of Householder, Location, and Race or Ethnicity, 2008 (Percent)

All Households	**32**
Age of Householder	
Under age 25	76
25–29	60
30–34	46
35–44	33
45–54	25
55–64	20
65 and older	20
By Location	
Principal cities in metropolitan areas	47
Suburbs in metropolitan areas	25
Nonmetropolitan areas	25
By Region	
Northeast	35
Midwest	28
South	30
West	37
By Race or Ethnicity	
Non-Hispanic White	25
Non-Hispanic African American	53
Non-Hispanic Asian and other	41
Hispanic	51

Source: U.S. Census Bureau, *Housing Vacancy Survey: Annual Statistics, 2008*, tables 14, 17, and 22, www.census.gov/hhes/www/housing/hvs/annual08/ann08ind.html.

Figure 4-3

Renter Households by Type of Structure (%)



Source: National Multi Housing Council, from *2008 Current Population Survey, Annual Social and Economic Supplement*, U.S. Census Bureau, www.census.gov/cps.

There are five main types of rental housing consumers:

- young adults moving away from their parents' home;
- lifelong renters—households that never earn enough or save sufficient funds to buy a home;
- lifestyle renters—including many affluent adults who do not want the responsibilities of homeownership or whose career path requires frequent moves;
- households in transition, including recent immigrants and people moving because of job relocation, divorce, or a return to school; and
- seasonal renters of second homes.

Table 4-3 demonstrates that the propensity to rent varies by many demographic and geographic characteristics. In many of the nation's largest cities, the majority of units are rented.[8]

Whereas most ownership units are single-family detached homes, rental properties are diverse. In some parts of the United States (especially in rural areas), there are no multiunit apartment buildings; the rental stock consists of investor-owned single-family homes, duplexes, or mobile homes. As figure 4-3 shows, single-family units (detached and attached styles, including rowhouses and townhouses) account for nearly a third of the nation's rental stock.

New for-sale housing typically offers many options for customization, ranging from alternative façade styles and exterior materials to finished basements, upper-level lofts, upgraded flooring, bonus rooms, and high-tech wiring. Green features—energy- and water-conserving appliances, windows, and HVAC systems, and use of environmentally friendly

materials—are increasingly popular with homebuyers, especially if those features have relatively short payback periods. An analysis of price trends must take into account the extent to which new properties have features not found in older homes.

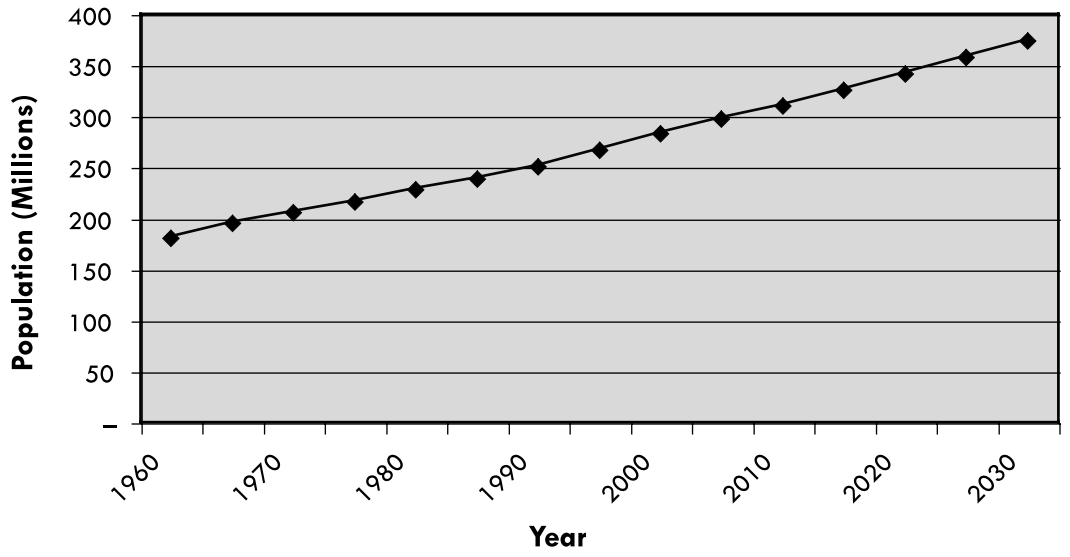
Rental apartment buildings tend to offer fewer choices. Studio units are uncommon in the suburbs and are seen less frequently than they used to be in all but the densest urban neighborhoods. Developers may offer one-bedroom units of different sizes or offer a one-bedroom-plus-den style. Two-bedroom units with two baths will command higher rents than those with only one bath. Some two-bedroom, two-bath models are designed as "split masters," allowing roommates to share a unit while maintaining privacy. Others put the second bath in the main living area, making it more accessible for visitors. Three-bedroom rentals typically account for less than 20 percent of units in new projects, although the proportion may be higher in affordable housing that caters to low-income families. Historic properties and nonresidential buildings adapted for apartments can have many unit sizes and layouts.

Another distinction between owner-occupied and rental units is how utility costs and property taxes are treated. In evaluating a homeowner's ability to pay, the monthly cost of utilities, real estate taxes, and insurance are extra costs that must be considered. Some rental properties (especially newer, individually metered buildings) require tenants to pay directly for all utility costs in addition to their monthly rent. In older buildings, the situation is less predictable. In most cases, tenants pay separately for electricity, cooking gas, telephone, and cable television services. Water, sewer, trash collection, and taxes are included in the rent. Some multiunit rentals (especially in older buildings) include heat and cooking gas; others do not. Because of these distinctions, analytic methods for rental apartments are somewhat different from those used for product designed for sale. In fact, some market analysts specialize in only one or the other, particularly in the case of affordable units.

Demographic Trends Affecting U.S. Housing Markets

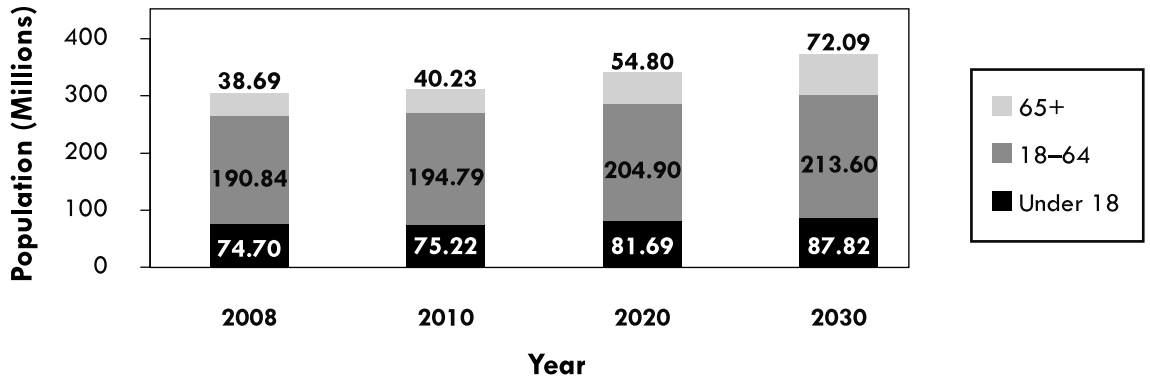
Housing market analysts need to be familiar with the broad national demographic trends that affect demand, so that they can understand how individ-

Figure 4-4
Historic and Projected U.S. Population



Sources: U.S. Census Bureau, *Statistical Abstract of the United States: 2008*, table 2, page 7; 2008 National Population Projections, summary table 1.

Figure 4-5
U.S. Population by Age Group, 2008 to 2030



Source: U.S. Census Bureau, *2008 National Population Projections*, summary table 3. www.census.gov/population/www/projections/2008projections.

ual metropolitan areas and local markets within them are similar to or different from the norm. Housing demand in the United States and Canada is influenced not only by growth in population and households but by the ever-changing characteristics of consumers. Census Bureau population projections for the United States released in August 2008, shown in figure 4-4, indicate that the nation's population will exceed 310 million in 2010, growing to 373.5 million by 2030. Although the population will grow at a rate of less than 1 percent per year, projected gains in the United States will exceed those of most developed countries.

Aging

In 2008, seniors (people age 65 and older) accounted for 12.7 percent of the total U.S. population. As the baby boomers reach retirement age, the Census Bureau projects that seniors will nearly double in number between 2008 and 2030 (see figure 4-5), constituting 19.3 percent of all Americans. Although the future housing choices of people who have yet to retire are not precisely known, a wide range of development types are already emerging to meet the lifestyle preferences and needs of active older adults. At the same time, greater longevity will require supportive living facilities that provide assistance to the frail elderly.

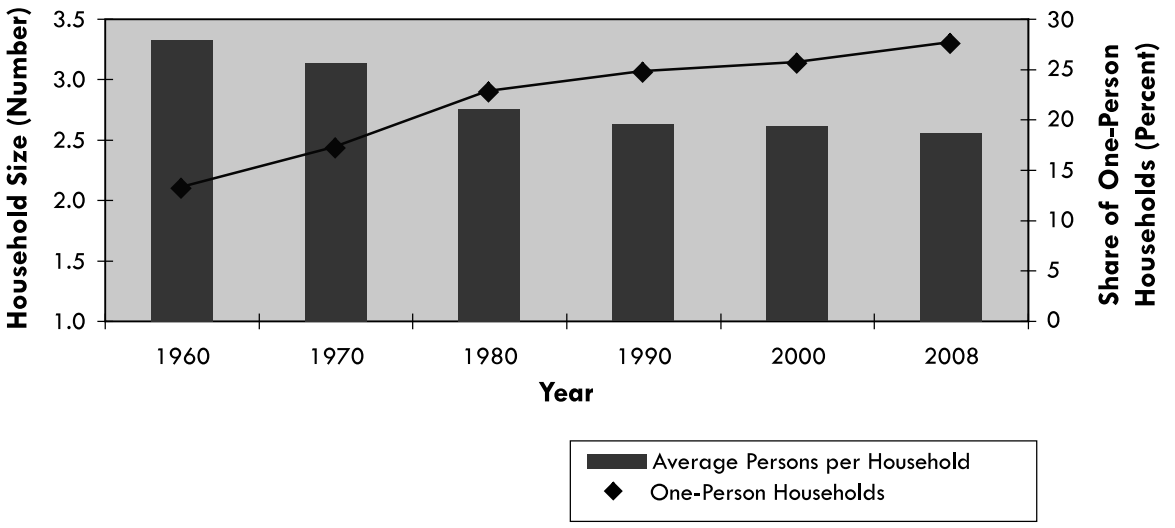
Smaller Households

Household sizes continue to drop as marriage is delayed, families have fewer children, and more single persons live alone. In 1970, the average American household had more than three people. By 2007, average household size had dropped to 2.76. And as figure 4-6 shows, the number of single-person households as a percentage of total housing demand has grown from 17.1 percent in 1970 to 26.8 percent in 2007. Household growth projections prepared by Harvard University's Joint Center for Housing Studies suggest that single people will account for 27.4 percent of total households in 2020 and that growth in persons living alone will account for 36 percent of total household growth.

The Joint Center cautions that three-fourths of the gain in single-person households will be made up of senior citizens. To date, seniors voice a preference for staying in their homes (perhaps making modifications to improve safety) rather than moving to smaller units.[9] Also, it would be incorrect to conclude that smaller households typically prefer smaller homes. In fact, despite declines in average household size over time, the size of new single-family homes and multifamily units increased until 2008, when a decline in average unit size was noted.

For the foreseeable future, the rate of household growth in the United States will outpace population

Figure 4-6
Trends in U.S. Household Size, 1960 to 2008



Source: U.S. Census Bureau, *Current Population Survey*, March and Annual Social and Economic Supplements, 2007 and earlier.

growth. What this means is that neighborhoods that attract small households—young singles, couples and roommates without children, empty nesters, and seniors—can demonstrate demand for additional housing units even in the absence of absolute growth in population.

Fewer Child-Oriented Households

To a large extent, suburbanization was propelled by child-oriented families looking for good schools and spacious homes with private yards. Yet over the past 25 years, suburbanization has continued even though the proportion of households without children has been growing. Married couples are living longer after their children have grown and often decide to remain in the suburbs—at least for a while. In contrast, young people—couples and singles—are choosing lifestyles on the basis of location criteria different from those their parents chose. For these households, high-quality schools, lots of bedrooms, and spacious yards are often less important than convenient access to work, restaurants, and entertainment, as well as maintenance services provided by a community association, condominium board, or landlord.

Impact of Immigration and Ethnic Diversity

Foreign-born persons, their families, and their descendants have accounted for an increasing share of household growth (and, therefore, housing demand) in the United States. In 2006, 12.5 percent of U.S. residents were foreign-born, according to the ACS. The most recent national censuses in Canada, Australia, New Zealand, and a few western European nations show even higher percentages.[10] Although a wide margin of recent immigrants tends to rent, homeownership rates for foreign-born households increase dramatically with length of residence in the United States.

Hispanics are the fastest-growing ethnic group in the United States. By 2030, Hispanics are projected to account for 23 percent of the total U.S. population, up from an estimated 15.3 percent in 2008. The Asian population will also show significant gains, both numerically and as a share of the total.[11] Non-Hispanic whites and African American populations will also grow in numbers, but the former will continue to shrink as a share of all Americans.

According to the Joint Center, minorities accounted for more than 60 percent of household

More Nontraditional Households

"Married couples are a shrinking share of American households. Several trends have contributed to this shift, including higher labor force participation rates for women, delayed marriage, high divorce rates, low remarriage rates, and greater acceptance of unmarried partners living together. The resulting growth in unmarried-partner, single-parent, and single-person households has increased the share of adults in all age groups heading independent households.

"Two trends in particular have lifted the number of nontraditional households. First, fewer marriages survive. . . . And second, remarriage rates have reached historic lows. In addition, more people defer their first marriage. . . . The never-married share has also climbed sharply. . . . Another noteworthy change is that a larger share of each succeeding generation is choosing to live with a partner without marrying. This is true for households with and without children. . . . In 2007, fully 29 percent of heads of households with children were unmarried. Within this group, about 18 percent lived with partners and another 21 percent lived with nonpartner adults."

Source: Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing: 2008*, p. 12.

growth between 2000 and 2006. Their share of total households will reach 35 percent in 2020, up from 29 percent in 2007.[12] Minorities tend to be younger than white non-Hispanics, and there are significant differences among racial and ethnic groups with respect to household size and presence of children. Going forward, the greatest increases in white household growth will be among older adults (couples, singles, divorced people) who do not have children living at home.

Migration and Mobility

As a group, renters are much more mobile than owners—approximately 30 percent of all renters move in any given year, while among homeowners, only 7 percent do.[13] More than sheer growth in the number of renter households, the desire for change—to get more space, find a better neighborhood, live closer to work, or reduce costs—propels movement within the rental market.

Although nearly two-thirds of all movers (owners and renters) stayed within the same county, others moved farther away. States in the Northeast and the Midwest are experiencing net domestic outmigration, but some states and metropolitan areas in these regions are able to stem population losses by attracting immigrants from other countries. The settlement patterns of newcomers to the United States are changing. Previous waves of immigrants settled in the nation's largest central cities, but today's newcomers frequently locate in suburbs. Many are also going to small metropolitan areas and rural counties in the Midwest, essentially replacing native-born Americans who have left in search of better jobs or a more appealing climate.

Within metropolitan areas, some central cities have gained population even as their suburbs continue to grow (New York City, Los Angeles, Phoenix, Dallas, San Antonio, Columbus, Charlotte). At the same time, even more big cities are losing residents (Philadelphia, San Francisco, Detroit, Memphis, Baltimore, Cleveland, and Tulsa, to name a few).[14] Aggressive job recruitment efforts and economic development programs have stemmed the tide in some locations, so these trends must be carefully monitored.

Affordability Gap

In many parts of the United States, typical rents or home prices are beyond the reach of households earning the area's median income. Even as a slowing economy and a halt to home price escalation prevent further erosion of affordability, millions of families are unable to find shelter that costs less than the recommended 30 percent of their income. Millions of others can afford their mortgage payments or rents only if two members of the household are working; during an economic downturn, they struggle to pay their bills if one worker loses his or her job. Data from the ACS for 2007 show that 30.4 percent of homeowners and 45.6 percent of renter households were spending more than 30 percent of income on shelter; these proportions have increased since 2001.

The Impact of Gasoline Prices on Commuting Patterns

A growing mismatch between place of work and place of residence has resulted in longer commutes in both the United States and Canada—greater distances and more time spent going to and from work. Increases in gasoline prices may be making a dent in this trend, because more employees are working from home at least one day a week, taking mass transit, carpooling, bicycling, or moving closer to work. Transit-oriented residential projects located near commuter rail, city subway, and light-rail stops are benefiting from this trend, which can be especially helpful in reducing auto usage for two-worker households that travel in different directions. It is important to remember, however, that many metropolitan areas lack rail lines of any type and have only limited bus service. Three of every four employed Americans drive to work; less than 5 percent use public transportation.[15]

Preparing a Housing Market Study

As with other real estate product types, a residential market study generally begins with an examination of the regional setting, including population and household trends, recent or anticipated changes in the economic base, and employment patterns. The focus then narrows to the county or municipality for more specific information. Analysts provide data on population characteristics, household composition, and incomes. If a particular site has been proposed for development, the market study evaluates the suitability of the site with respect to accessibility, surrounding land uses, school quality, proximity to shopping, health care, and recreational opportunities. Other topics that might be addressed include entitlements, environmental contamination, existing structures, special site features, and adjacent or nearby uses. The report contains an analysis of competitive properties (existing and planned). It concludes with recommendations for action and an assessment of how well the property is likely to perform.

The introduction to the market report should clearly define its objectives and the scope of services covered. The report may provide only a regional overview (for purposes of monitoring area conditions), or it may include an analysis of specified submarket areas and a detailed review of competitive projects within the submarket. If a specific development proposal is being examined, the report will usually give an opinion about marketability, demand, pricing, and absorption and may suggest changes to the plan that, in the opinion of the analyst, would improve the project's chances of success.

Identifying the Market Area

A project's primary market area is usually defined as the area from which 60 to 80 percent of the buyers or renters in a new development are drawn. But there are many exceptions to this standard. For example:

- A project in a rapidly growing metropolitan area that attracts corporate transfers or retirees might draw a majority of its residents from outside the local area.
- An infill project that offers attractive new units with modern features and off-street parking might attract nearly all of its residents from the immediate neighborhood.
- A second-home community is likely to draw most of its residents from outside the local area.
- Senior citizens will move away from their former community to live close to adult children and grandchildren.

Real Estate Development: Principles and Process defines the residential market area as follows:

> For the marketability study, the market area where the subject project is located receives the most attention, but competitive supply almost always exists in other locations. As a result, residential market areas are often noncontiguous areas in the same labor market or metropolitan area. Residential developments in different sections of the metropolitan area often compete to attract the same inmigrants or local homebuyers and renters who are moving up.[16]

The market area for a primary-home residential project usually centers on a major employment node, a transportation corridor, or a desirable neighborhood or natural amenity. Physical barriers, either natural or manmade, or political considerations, such as a county line or school district boundary, usually determine the borders. Working households

often focus their housing search based on commuting times and distances as well as neighborhood affordability. Community image or perceived status can also be important in determining where consumers will look for alternative housing choices.

Consider a new downtown high-rise condominium project in a big city. The primary competition would include newer condominium properties within a few blocks of the proposed site; similar-quality buildings in large mature suburbs with comparable amenities and good transportation access would be secondary competitors. Potential buyers would come from other downtown buildings (both condominium and rental) but may also include suburban empty nesters who are considering a move downtown, as well as young professionals moving from outside the city.

In a sparsely populated, semirural community with few competitive projects, the market area for a new single-family subdivision could comprise the entire county or even several adjacent counties. The market area for a large master-planned community on the outskirts of a rapidly expanding metropolitan area might encompass the entire metropolitan area and even areas out of state.

Furthermore, a distinctive project with little or no competition will draw from a larger market area than a typical property with a large pool of similar competitive projects. Relatively standard projects of moderate size usually have a market area with no more than a four- or five-mile radius.

In many cases, the market areas for supply and demand are identical, although competitive projects can exist outside the target market area. In some instances, the two market areas are very far apart, as in the case of second-home developments. Most market areas for primary shelter, however, are within a reasonable commute of major employment centers or other key destinations. Some factors to consider in delineating the market area include the following:

- *Travel time from major employment centers.* By identifying major employment centers and making assumptions regarding acceptable commuting time, market analysts can define a target market area. Commuting patterns and times are based largely on ease of access; thus, the target market's geographic size is influenced by the availability of mass transit, the location of transportation corridors, and the speed at which they operate during peak travel times.
- *Socioeconomic status and community character.* An area's income, age, household types, and other demographic characteristics influence housing choice and location. Although discrimination based on race, ethnicity, or religion is illegal in the United States, consumers often chose to locate near others of similar background.[17] Age-restricted communities are permitted. In some locations, housing developments that exclude children are politically attractive because they do not generate cost burdens for the local school district.
- *Political subdivisions.* Municipal boundaries can be especially important when adjoining jurisdictions differ markedly in political climate, tax policies, or status, or when different attitudes about growth exist. School district boundaries can be critical if households with school-age children represent a major market segment.
- *Data availability.* For practical reasons, market analysts will often define their local market areas based on census geography, using combinations of counties, municipalities, census tracts, or ZIP codes or block groups. This practice is not always ideal; standard geographic combinations might not truly match the boundaries of the probable market area. In recent years, private data vendors have improved their mapping programs, allowing the analyst to create demographic reports for custom-defined geographies—polygons, corridors along a highway, and so on. However, it is more time-consuming to precisely delineate an irregular market area; the possibility of errors increases.

Analyzing Market Area Demand

Demographic trends and projections underlie the analysis of housing demand. Several demographic factors are of primary importance in analyzing the market potential for a project:

- *Employment* usually drives population growth. If an area has an expanding employment base, new workers will be moving to the market area, and existing households will stay in the area to take advantage of opportunities for advancement.
- *Households* are the unit of measure most relevant for assessing the housing market, because households buy or rent a unit of housing. The

perceived strength or weakness of national and local economic conditions influences whether a recently employed high school or college graduate will rent an apartment or stay in his or her parent's house. A sense of financial security, among other things, will influence whether a senior citizen will continue to live independently or move in with family members. Economics also determine whether couples will marry or form households.

- *Household income* is key to determining the pricing structure for a proposed development. The federal government's standard for determining housing affordability suggests that households should pay no more than 30 percent of income for mortgage amortization, utilities, and property taxes; similar standards apply to monthly rent plus utility payments. This standard is less valid for a seniors' housing development, where homes are being sold to buyers with substantial equity in an existing home or with other assets that can be used to pay for shelter costs.

  Mortgage lenders have their own standards for determining whether or not they think a borrower can make his or her payments. Some first-time buyers will stretch their budget to achieve home-ownership, often paying more than 30 percent of income each month by restricting other household spending. Other households will have seemingly affordable mortgage payments but carry additional debt that makes their shelter outlays burdensome.
- *Other demographic statistics* may be relevant for evaluating the project's potential, such as household size, ages of householders, family versus nonfamily or single-person households. Educational attainment and religious affiliations can also influence housing preferences.
- *Investors* can be a small but sometimes important part of the for-sale market demand.

Employment

Because employment throughout a region determines population growth, employment statistics for the metropolitan area should be gathered. Chapter 3 provides details on how to use metropolitan, county, and local employment data in preparing market studies.

In large metropolitan areas, workers commonly will commute fairly long distances. Only a small proportion of people work in the same jurisdiction or ZIP code in which they reside, which suggests that housing market areas will be large. Even if gas prices continue to rise and more mixed-use communities are built, commuting patterns will be an important factor in housing market analysis for the foreseeable future. Thus it is important to know where jobs are locating within the metropolitan area and to use this information in forecasting housing demand.

Demographers use projections of employment growth as one of the bases for determining future population growth. Some analysts—especially those studying multifamily housing—prefer to base demand scenarios on employment rather than household projections because in most metropolitan areas, demand for new housing is closely tied to new workers moving into an area. These workers often rent before they decide to buy. Thus, being able to forecast both total housing demand and the share of demand likely to be captured by rental apartments is critical to understanding aggregate housing demand at the metropolitan level.

Population and Households

Population and household data are critical in forecasting the demand for new housing in the market area. Trend analysis should begin with the population count dating from, at a minimum, the preceding decennial census. As time passes from the decennial census year, it is increasingly important for the analyst to find accurate current estimates. A good market analysis undertaken in 2008 will not rely solely on 2000 census numbers. The smaller the local market area, the more it is likely to have changed since the last census was taken. Although the Census Bureau publishes population estimates for incorporated places and minor civil divisions every two years, these numbers are not sufficient when the market area is defined based on ZIP codes or customized geography.

As was discussed in chapter 3, the Census Bureau does no population or household projections for small areas. State, county, or regional agencies try to fill this gap. Projections going out as far as 20 years are often prepared by planning or transportation agencies. Increasingly, market analysts are turning to private data vendors for current estimates and five-year projections, especially if their market areas contain multiple jurisdictions or are based on combinations of census tracts, ZIP codes,

or other complex geographies. However, long-range forecasts (beyond five years) are virtually impossible to find for these small market areas.

The market analyst needs to get a sense of the types of households currently living in the local market area. To some extent, this information can be gleaned from looking at estimates of age distribution, median age, education levels for adults (usually tabulated by the Census for persons age 25 and older), and household sizes. Most vendors sell estimates of the number of households by type as part of their standard demographic reports, but these numbers may simply represent trend line extrapolations from decennial Census findings. They may not take into account the changing composition of households living in particular neighborhoods.

Each household type has specific housing needs, providing opportunities in a variety of market niches. Studying local trends in household size and type can help determine the concept and design of a new development and its housing units. It is important to remember that the same product can appeal to more than one type of household. Witness the number of successful downtown rental or condominium properties in large cities that are occupied by a mix of young singles, childless young couples, households with a baby (but no school-age children), empty nesters, and retirees.

Income

An analysis of household incomes in both the metropolitan area and the target market area provides a sense of the region's economic vitality as well as valuable insight into the scope and magnitude of available purchasing power. The market analyst needs to look at the distribution of households by income range (usually shown in brackets of $5,000 to $10,000 or more) as well as the median and average household incomes for the target market area. If there is a secondary market area, the same information needs to be shown in the market study, with comparisons to the county or metropolitan area. Further perspective on how to use household income data is provided in chapter 3.

Such information is invaluable in determining the price ranges that a significant portion of the population can afford. But as chapter 3 suggested, income alone cannot be used as a precise indicator of the ability to pay for housing. Wealth (assets minus liabilities) is a more precise measure when looking at move-up for-sale communities (those that are targeted to existing homeowners, not first-time buyers) or market-rate (not subsidized) housing communities for seniors. Looking only at current income will underestimate the ability of consumers to afford the planned project.

Understanding household assets is especially important when analyzing the marketability of housing for seniors. The money income of senior citizens will usually fall well below the overall average, but many retirees have substantial savings and investment assets, with little debt. Counting a portion of assets (especially the potential investment earnings from equity realized from long-owned homes) is important in determining whether seniors in the market area can afford the monthly payments. Seniors also draw upon their assets to make retail purchases, whether for luxuries (such as travel) or necessities (prescription drugs and food).

Unfortunately, obtaining wealth data for local housing markets is very difficult. The decennial census and the ACS do not measure wealth. Some private data vendors provide their own estimates of household wealth, but methodologies vary and accuracy can be questionable, even for larger areas. The Federal Reserve Board publishes its triennial national Survey of Consumer Finances, which provides indicators of wealth by selected demographic indicators and for the four census regions, but the sample is too small to provide any metropolitan or local data. Information on equity in (and sales prices for) existing homes within the local market area can serve as a partial proxy for wealth. Broad correlations can be drawn between recent sales prices, income levels, and household wealth.

Market Segmentation

People's lifestyles are changing and so must the communities in which they live. As discussed earlier, so-called nontraditional households now form a larger portion of households than married couples with children. More people work out of their homes, at least part of the time, so unit designs must reflect the need for quiet office space. These are just two of the trends that will affect the kinds of neighborhoods people will choose in the coming decades. For example, people who work at home will most likely require the retail services—copy centers, meeting space, coffee bars—that are usually available to those working in offices. At the same time, child-focused amenities such as play-

The Mountain includes 80 residential units on a hillside in Copenhagen. Each unit has a roof garden that takes advantage of the development's solar orientation. ***Jakob Boserup***

grounds and ball fields may decline in importance in some locations.

Both the product and the consumer must be understood in terms of choices people make, evolving lifestyles, personal tastes, and many other considerations that cannot be easily quantified. In today's competitive environment, understanding the local market and targeting specific household segments can help set a development apart from the competition. However, the analyst must be careful not to overgeneralize about the target customers' needs. Not all young families want a suburban backyard, and not all wealthy retirees want to play golf. Within age or income cohorts, markets can be quite diverse, and to reach potential consumers, developers must understand their preferences.

As was discussed in chapter 3, many of the private companies that sell current demographic estimates and projections have developed psychographic or socioeconomic profiling systems that tell the market analyst about the lifestyles of market-area residents. These systems divide national and local households into groups based on a range of factors, typically including age, income, ethnicity, marital status, education, urban or suburban residence, presence of children, and propensity to own or rent. Once the analyst defines a market area, he or she can obtain household estimates for each lifestyle group represented in the area. It is important for the analyst to read the descriptions of the lifestyle clusters said to be present in the area and to determine which of these groups are likely to be interested in the proposed product.

Traditional techniques for learning about preferences include focus groups, interviews, and surveys of current home shoppers or rental office visitors. (For more information on types of consumer research and their advantages and drawbacks, see chapter 3. Chapter 5 discusses the use of surveys in retail market studies.) Ideally, direct consumer research and psychographic analysis can be combined to provide a nuanced portrait of potential buyers or

The Importance of Green Features in the Home Purchase Decision

The homebuilding industry has been slower to adopt green building features than other segments of the real estate development business. A 2008 survey conducted for Robert Charles Lesser & Co (RCLCo), a national real estate consulting firm, provides insights into how prospective buyers view environmentally friendly features.

Three types of green homebuyers were identified based on the survey's results:

- "Forest Greens" are primarily young, Generation Y consumers, with limited current earnings. They are motivated to improve the environment "because it's the right thing to do." Representing only 6.5 percent of potential buyers, they want green features at a price they can afford. High-quality multifamily units with environmentally friendly features will appeal to them.
- "Greenback Greens" are mature households; some live on fixed incomes. They want to see payback for green features within four years, which is not always possible. Some 21.5 percent of potential homebuyers are in this group. They are most interested in saving on energy costs.
- "Healthy Greens" represent 8.5 percent of all households and are the most affluent and well-educated of environmentally motivated buyers. They are interested in green features even if there is no payback.

Although the majority of survey respondents—58.5 percent—were not especially motivated by green in-home features, support was voiced for more environmentally sensitive site location and planning. Although 68 percent of respondents said they currently live in traditional suburban neighborhoods, only 50 percent said that this would be the type of area they would choose for their next home. Future preferences included both higher-density neighborhoods with mixed housing types and walkable features, and low-density conservation or "nature preserve" areas.

Source: *"Measuring the Market for Green Residential Development,"* presented by Shyam Kannan, vice president and director of Research and Development, RCLCo, at the Urban Land Institute 2008 fall meeting, Miami, Florida.

renters. Market research can yield a wealth of information on the potential residents of a new project. But market research can also be flawed if the wrong questions are posed or the data are not interpreted correctly. It is important to be aware of the potential for incorrect assumptions.

Examining Competitive Supply

The current and likely future housing stock in the competitive market area form the supply side of the market analysis equation. The analyst must first examine the numbers of units and general characteristics of the existing housing stock (tenure, age, density, current prices or rents, and vacancies) in the market area. This is supplemented by trend information (new construction activity, rent or price growth or decline, vacancies, and the status of planned projects) in the larger area and the local competitive market. Details are provided on projects deemed to be most competitive by virtue of age, location, or quality. For newer developments, absorption information is also obtained. An individual project's *absorption rate* is the pace at which it is sold or leased, generally expressed as units per month.

An area with relatively few new units may have replacement demand that would not be evident from household growth statistics alone. In markets where the majority of housing units are more than 50 years old, a long-established rule of thumb is that 1 percent of existing units should be replaced in any given year. The ratio could be lower if older stock has benefited from renovation or higher if units built decades ago do not have amenities sought by today's consumers.

Studying Existing Competition

In most housing market studies, the analysis of existing competitive projects is the most detailed part of the report. The competitive project inventory—provided in table form or with a separate information sheet on each project—provides a wealth of information about project characteristics (unit mix, unit sizes, project and unit amenities, prices or rents, available inventory and vacancy rates, and sales and absorption history). A narrative analysis should highlight each project's advantages and drawbacks relative to the proposed development with a map identifying their locations.

The analyst should provide a table describing property features and asking rents or prices. A grid that compares prices or rents after adjusting for property age, unit size, amenities, and location factors can be helpful in comparing "apples and oranges," given that no two properties are exactly the same. Table 4-4 suggests one possible format for comparing the features of existing rental properties in a market area. Table 4-5 shows how the proposed rents in a planned new building with one- and two-bedroom units would compare with its mostly older competitors. Rents for the competitive properties are adjusted for differences in condition, location, unit sizes, number of bathrooms, and tenant-paid utilities. The analysis shows that the subject units would be somewhat more expensive than other apartment projects in the area. When planning a for-sale development, a detailed comparison of amenities may also be in order, as shown in table 4-6. This example compares the features of seven for-sale active adult communities in the Philadelphia suburbs in early 2007.

When analyzing a new for-sale product, the competitive inventory usually includes only new developments and proposed projects that are expected to be selling during the marketing period. For rental projects, the newest projects in the market should be emphasized (preferably not more than ten years old). Older properties that have been renovated to Class A standards can also be considered.

Competitive projects should offer similar product type(s) to those proposed for the subject project. Ideally, the market area contains a sufficient number of comparable projects. If the proposed project is a high-rise rental apartment building, only other rental buildings with elevators should be the focus of the inventory. Similarly, a master-planned community with amenities relies only on this type of project for its competitive survey. Small subdivisions without similar features would not be competitive. By contrast, in a market area with few competitive projects, the prospective consumer has limited choices and the analyst's inventory would reflect that fact. In such an area, it might be necessary to widen the definition of "competitive," possibly including all projects within a certain price range. Or it might be necessary to widen the geographic net, enlarging the market area to include more ZIP codes, more jurisdictions, or a larger polygon. These additional market areas may or may not be directly adjacent but will share certain features such as schools or commuting routes to employment centers.

Whenever possible, it is useful to benchmark the characteristics and performance of comparable properties against market area averages with respect to prices or rents, unit sizes, prices or rents per square foot, and sales pace or absorption rates. Although consumers tend to think about total selling price or monthly rent plus utilities when making their choices, presenting data on a per square foot basis is important to prevent them from drawing conclusions based on comparisons of dissimilar products. In addition, per square foot data are useful for developers in comparing achievable rents or prices with estimated construction costs.

For rental projects, vacancy rates in a market area give an indication of that area's strength. A high overall vacancy rate should be seen as a sign of limited development potential, but renovating existing product to gain a competitive edge might well make sense. A 5 percent or lower vacancy rate can indicate a strong market for a particular type of product. It is important to view vacancy rates qualitatively. Older rental projects that lack modern amenities may skew the market's vacancy rate upward and not accurately capture demand for a new project. Moreover, projects in the initial lease-up phase will have an artificially high percentage of vacancies. These projects need to be counted in the absorption analysis, but not in the vacancy statistics.

Projects with the lowest average prices or rents, or the lowest average prices or rents per square foot, should report the highest absorption rates, assuming all other factors are equal. If the analyst finds that consumers are not responding consistently to value, then less tangible factors must be examined. For example, home features that are standard in one project may be upgrades in another. One development may be more aesthetically pleasing than another. Locations can have small differences that matter a great deal to buyers. A particular builder's reputation or experience may add perceived value. These intangibles can often be ascertained only through discussions with sales agents or surveys of home shoppers. Of course, the analyst's own judgment is crucial in these evaluations.

When identifying and analyzing competitive projects, there is no substitute for fieldwork. Visiting each project and talking with a sales manager

Table 4-4

Survey of Comparable Apartments, Charter Oaks Market Area

Map	Complex	Total Units	Occupancy Rate (%)	Type	Age	Unit Types (BR/BA)	Size (Sq. Ft.)	Net Rents ($)	Rent Specials and Changes	Tenant-Paid Utilities	Rent ($/Sq. Ft.)	Amenities
	Charter Oaks		To be built	Mid-rise flats	To be built	1/1 2/2	825 1,050	1,000 1,200		Gas heat; electric hot water, cooking a/c	1.21 1.14	Dishwasher, disposal, a/c, in-unit w/d, elevator
1	Westridge Villas	229	94	Garden apts	3	2/2 2/2, garage	1,146–1,159 1,250–1,341	1,110–1,210 1,310–1,460	Special: $950 for smallest unit	Gas heat; electric hot water, cooking, a/c	0.97–1.04 1.05–1.09	Dishwasher/microwave; in-unit w/d; fireplace; vaulted ceilings; patio/balcony; garage opener
2	Willow Ridge	400	95	Garden apts	20+	1/1 2/1	738 858	980 1,135	Special: March free with 13-mo. lease. Rents $30 higher for 1 BR and 2 BR over	All electric	1.33 1.32	Patio/balcony; in-unit w/d, microwave, dishwasher, disposal; pool; playground; tennis; fitness center
3	Hillview Pointe	96	100 wait list	Garden apts	27	1/1 2/1	1,000 1,200	800–900 1,030–1,075	Rents higher by $30 (1 BR), $15–$25 (2 BR), over past year; current 1 BR special at $855	All electric	0.88–0.90 0.86–0.90	Dishwasher; microwave; in-unit w/d; private entrance; balcony/patio
4	River Landing	108	91	Garden apts	35	1/1 2/1 2/2 3/2	756 856 936 1,076	735 825 925 1,005	Rents higher by $45 (1 BR), $20–$65 (2 BR), $25 (3 BR), over the past year	Gas heat, cooking; electric; water & sewer	0.97 0.96 0.99 0.93	Dishwasher; disposal; patio/balcony; clubhouse
5	Whiteside Terrace	76	91	Garden apts	44	Studio 1/1 2/1 3/1.5	460 711 820 968	625 725 825 1,250	Rents lower by $15 (1 BR), $25 (2 BR), and $100 over the past year	All electric	1.36 1.02 1.01 1.29	Dishwasher; disposal; ceiling fan; patio/balcony; playground; pool
6	Orchard Glen	156	84	Garden apts	47	Studio 1/1 2/1	448 800 1,080	665 820–850 1,000–1,025	Rents dropped by $50 for (1 BR)	Gas cooking	1.48 1.03–1.06 0.93–0.95	Dishwashers in 2 BRs; disposal; ceiling fan; patio/balcony; pool
7	Loon Lake Commons	200	90	Garden apts	41	Studio 1/1 2/1 3/2	630 700–792 830–935 1,400	705 795–850 975–995 1,500	Specials: one month free with 13- or 25-month lease; $50/month off for one-year for leases signed by 3/15	Electricity, including cooking	1.12 1.07–1.14 1.06–1.17	Dishwasher, ceiling fan, patio/balcony; playground
8	Dockside Apartments	240	97	Garden apts	42	Efficiency 1/1 2/1	500 720 921	625 765 945		Gas heat; electric	1.25	Dishwasher, disposal, in-unit w/d; patio/balcony; pool; fitness center; clubhouse

Source: Interviews with apartment management, February/March 2009.

Note: apts = apartments, a/c = air conditioning, w/d = washer/dryer.

Table 4-5

Adjusted Rent Comparison: New Units and Existing Competition

	Subject Property		Comparable 1		Comparable 2		Comparable 3	
		Adjustment ($)		Adjustment ($)		Adjustment ($)		Adjustment ($)
1 BR/1 BA Units								
Size (sq. ft.)	825		738	22	1,000	–44	711	29
Net rent		1,000		980		880		725
Net rent per sq. ft.		1.21		1.33		0.88		1.02
Age	New	0	20+	25	27	25	44	50
Power and a/c	Electric	45	Electric	45	Electric	45	Electric	45
Heat	Gas	26	Incl.	0	Incl.	0	Electric	33
Cooking	Electric	5	Electric	6	Electric	5	Electric	5
Water heating	Electric	28	Incl.	0	Electric	28	Electric	28
Condition/curb appeal	E	0	E	0	F	50	F	50
Location	G	0	G	0	F	50	G	0
Elevator	Yes	0	No	30	No	30	No	30
Pool	No	0	Yes	–20	No	0	Yes	–20
Fitness center	No	0	Yes	–25	No	0	No	0
Balcony or patio	No	0	Yes	–15	Yes	–15	Yes	–15
In-unit washer/dryer	Yes	0	Yes	0	Yes	0	No	30
Gross rent, all		1,104		1,048		1,054		990
Indicated average gross rent, comparables		1,031						
2 BR/2 BA Units								
Size (sq. ft.)	1,050		858	48	1,200	–38	820	58
Net rent		1,200		1,135		1.030		825
Net rent per sq. ft.		1.14		1.32		0.86		1.01
Age	New		20+	25	27	25	44	50
Power and a/c	Electric	57	Electric	57	Electric	57	Electric	57
Heat	Gas	33	Incl.	0	Incl.	0	Electric	47
Cooking	Electric	7	Electric	7	Electric	7	Electric	7
Water heating	Electric	36	Incl.	0	Electric	36	Electric	36
Bathroom adjustment	2 BA	0	1 BA	50	1 BA	50	1 BA	50
Condition/curb appeal	E	0	E	0	F	50	F	50
Location	G	0	G	0	F	50	G	0
Elevator	Yes	0	No	30	No	30	No	30
Pool	No	0	Yes	–20	No	0	Yes	–20
Fitness center	No	0	Yes	–25	No	0	No	0
Balcony or patio	No	0	Yes	–15	Yes	–15	Yes	–15
In-unit washer/dryer	Yes	0	Yes	0	Yes	0	No	30
Gross rent, all		1,333		1,292		1,283		1,175
Indicated average gross rent, comparables		1,250						

Note: a/c = air conditioning; Incl. = included, E = excellent, G = good, F = fair. These properties were used in the Rent Adjustment Grid because complete information was available regarding unit sizes and estimated utility costs. They represent a cross-section of market-rate apartment choices available in the HMA. The most expensive units are excluded. Size adjustments are valued at $0.25 per sq. ft.

Table 4-6

Features and Amenities Provided at For-Sale Active Adult Communities, Suburban Philadelphia Market Area

	Project 1	Project 2	Project 3	Project 4	Project 5	Project 6	Project 7
Number of Models	4	3	4	2 in Phase I, 2 in Phase II	7	6	4 TH, 7 SF
Interior Features							
Master Bath							
Jacuzzi/soaking tub	All models	Option	Option	Option	Some models	Some models	Some models
Separate shower	All models	All models	No	All models	All models	All models	All models
Double-bowl vanity	All models	All models	All models	All models	All models	All models	All models
Flooring	Ceramic tile	Ceramic tile	Vinyl	Vinyl	Ceramic tile	MBR ceramic tile; others vinyl	MBR ceramic tile; others vinyl
Powder room	Option in 1 model	No	No	Std	No	No	No
Second full bath	Option in 1 model	Option	No	Option	Std in 4 models	All models	Option
Garage	2-car	2-car	1- and 2-car	1-car	2-car	1- and 2-car	2-car
Finished basement	No	Option	Option in some	Option; walk-out	Option	Option; walkout	Option
Breakfast nook	All models	No	No	No	All models	3 models	3 models
Patio/deck/porch	All models	Option	All models	All models	All models	All models	Not shown
Family room/ great room	In 2 larger models	1 model	No	No	4 models	1 model	1 TH model; 4 SF models
Sunroom/garden room	Option	Option	Option in some villas	Std in larger model	Option	Std in 1 model; option in 4	Option in 2 models
Fireplace	Option	Option	Option	Std	Option	Std	Std in some
Finished loft	All models	Option	Option in 3 largest models	Option 3rd floor	4 models	All models	Option in SF models; std in TH
Kitchen—Standard Features							
Flooring	Vinyl	Vinyl	Vinyl	Vinyl	Hardwood	Vinyl	Vinyl
Appliances	Whirlpool	Kenmore	Not known	GE	GE	Whirlpool	Whirlpool
Cabinets	42”	42”	36”	Not known	42”	36”; 42” option	42”
Countertops	Wilsonart	Formica	Laminate	Laminate	Corian	Laminate	Laminate
Recreation							
Clubhouse	Yes	Yes	Planned	No	Yes	Yes	Yes
Kitchen	Yes	Yes			Yes	Yes	Yes
Fitness center	Yes	Yes			Yes	Yes	Yes
Party room	Yes	Yes			Yes	Yes	Yes
Activity rooms	Yes	Yes			Yes	Yes	Yes
Outdoor pool	Yes	Yes			Yes	Yes	Yes
Indoor pool	No	No			Yes	No	Yes
Library	Yes	No			Yes	No	No
Billiard room	Yes	No			No	No	Yes
Tennis	Yes	No	No	No	Yes	Yes	Yes
Golf	Yes	No	No	No	Putting green	No	No
Trails/paths	Yes	Yes	No	No	Yes	Yes	Yes
Security							
Gated entry	Yes	No	No	No	Yes	No	No

Note: TH = townhouse, SF = single family, std = standard.

or leasing agent is the only way to determine whether a project is truly competitive with the planned development. Although data vendors may offer detailed information on many projects, discussions with staff members at active projects are the most effective way to learn about the types of households being drawn to the area, where they come from, what they like (or do not like) about current offerings, what the most desirable product characteristics and amenities are for each consumer type, and how competing projects are performing.

Identifying Future Competitors

Projects in the development pipeline must be identified, and relevant data, similar to that for existing projects, should be provided: the project name; the developer and builder; location, timing, number of units planned, and, if known, target markets; the type of units planned, estimates of price ranges, and expected opening dates. It is likely that many details will be missing in the early planning stages. By talking to local planning and zoning officials, the analyst should be able to determine the number of units being proposed, the type of project (detached homes, elevator apartments), what approvals have been obtained from local government, and (usually) whether the units will be offered for sale or for rent.[18] Additional information may be available in the local real estate press or in newspaper coverage of planning board hearings.

Occasionally, a developer may be unwilling to provide any details regarding a proposed development. Also, some planned projects may never actually get off the ground. During a market slowdown, later phases of a large project may be delayed well beyond the developer's initial schedule. Units that have been sold may reappear on the market if transactions fail to close, or they may be converted to rental units.

Any local inventory of proposed projects will fail to identify some developments or will include others that are never started or completed. Nevertheless, it is important to compile as complete an inventory as possible. This can be a time-consuming task, especially if the market area includes multiple jurisdictions and requires multiple calls to individual developers.

Municipalities tabulate residential building permit counts and share this data with state agencies and the Census Bureau. Although a market area's boundaries may not precisely conform to municipal borders, the market analyst should examine historic building-activity patterns, going back at least five years, for all the municipalities in the market area. Single-family permits should be distinguished from units in multifamily structures. The analyst will want to see what proportion of demand in the county or metropolitan area has occurred in municipalities within the local market area. Three cautions: (1) multifamily permits reported at the local level do not indicate whether the units are intended for rent or for sale; (2) some municipalities do not report multifamily units, even though fieldwork indicates their presence; and (3) most, but not all, permitted units are actually built.[19]

Calculating Capture, Penetration, and Absorption Rates

Once the market analyst has determined total housing demand (from household growth plus replacement needs), the next step is to calculate a project capture rate. The capture rate is the percentage of likely consumers that would need to be attracted to the proposed development to reach stabilized occupancy (usually 95 percent of total units in a rental property) or sell out a for-sale project. (Model units may be subtracted from the total in arriving at the capture rate.) Total demand should be narrowed down based on tenure (the percentage of future households likely to own versus rent), household size, age, income, and possibly psychographic characteristics—or a combination of these factors—before calculating the capture rate. The market analyst should recognize that a particular project may appeal to a variety of age or psychographic groups. For example, urban condominiums often attract both young first-time buyers and empty nesters, provided that they have an amenity package that appeals to both groups.

Many factors determine the size of the demand pool used to calculate a capture rate, and these factors may vary over the lease/sales period. If house prices are appreciating and mortgage funds are available, renters may decide to buy, and the share of future demand that will be captured by for-sale projects will increase beyond the current homeownership rate. Conversely, if for-sale markets weaken, prices decline, or mortgage terms are restrictive, prospective owners will think twice about leaving the rental market. The pool of likely

buyers in the local market area will be expanded by households coming from outside the market area for job relocations or in response to an effective advertising campaign. This external demand can account for as much as 20 percent or more of the total units sold or rented; in a project oriented to seniors, or second-home communities, outsiders can outnumber those from the local market.

Once total demand has been quantified, calculating the capture rate is simple: it is the number of units in the project (with an allowance for normal vacancy) divided by total qualified demand (including replacement and outsiders). It is important not to overestimate the market potential of the subject property, which generally is not more than 5 to 10 percent of projected demand. But this standard can vary. In an area that is growing slowly, if at all, and where there has been no new product built in many years, a higher capture rate may be permissible. Examples would be in a rural county with little projected population growth or a mature urban community with a scarcity of developable sites. A good understanding of competitive and comparable projects is critical to accurately estimating the capture rate.

For affordable housing developments, market analysts are often asked to calculate a penetration rate. This rate indicates the extent to which the total supply of housing serving a particular age and income group is at risk of overbuilding. The penetration rate is expressed as the total number of existing and approved units in the area serving the age- and income-qualified market divided by the total number of households in the target group. Generally, government agencies prefer that penetration rates not exceed 15 to 20 percent of target households.

In a given apartment market area, *net absorption* is the difference between total units (including any new supply) and occupied units during a given time period. When market conditions are strong, net absorption will be positive: the number of new leases signed will exceed the number of apartments vacated due to turnover. (This term is also used in market studies for commercial space.) Projecting a new property's future absorption rate must take into account the number of units in competing projects that will be coming on line during the marketing period. The absorption rate is typically stated as the number of leases signed in a given month. A similar concept in a new for-sale project is usually expressed as the *sales pace*, the number of units placed under contract each month. Some analysts look only at closings as a more precise estimate of actual sales. It is important to use a consistent definition and source of absorption information if possible.

Comparable projects currently being leased or sold provide the best sources for estimating absorption. If there are no other new developments, the experience of properties leased or sold within the last two years is a reasonable proxy. It may be necessary to call newer apartment buildings or homebuilders outside the local market area if there are no nearby competitors. Several private real estate market data sources collect historical sales and absorption information, although not in all locales. They are discussed below under "Data Sources." The market analyst will need to use judgment in adjusting the experience of other properties to reflect current market conditions as well as the relative advantages and drawbacks of the planned development.

Recommendations and Monitoring

A good developer will welcome suggestions from the market analyst that would improve marketability, improve the projected capture, or speed up the pace of absorption. Market analysts should tell the client if economic conditions are not positive, if vacancy rates are trending upward, if rents are flat or declining, or if an adjustment to unit mix or unit sizes would make the property more competitive. The analyst may conclude that the project is too big and advise that it be built in phases—or even postponed entirely. Lenders and government agencies often ask the analyst to state whether, in his or her opinion, the project should be built as planned or adjustments should be made to the developer's plans.

Although a market study is one of the first elements in the development process, market research does not end with a project's completion: it often continues after sales begin, to fine-tune prices and even change designs, features, and options. In a rental project, such research is part of an ongoing effort during leasing and management to keep tabs on competitors' vacancies, rents, and incentive programs. For rental properties, these monitoring

efforts continue after the new apartment complex has reached stabilized occupancy; keeping an eye on the market is critical to maintaining a property's competitiveness as it ages.

Data Sources

Chapter 3 provides a thorough discussion of information sources that can be used in analyzing demand demographics: the U.S. Census Bureau; state, county, and municipal planning agencies; and private demographic data vendors provide basic information on population and households and their characteristics (including current-year estimates and five-year projections).

For analysts working with affordable housing proposals, background demand data at the metropolitan or county level can be obtained from the National Low Income Housing Coalition (NLIHC)[20] and from the U.S. Department of Housing and Urban Development's *State of the Cities* database. The HUD data provide counts of low-income owner and renter households that spend more than 30 percent of their income on shelter costs. However, the information comes from the 2000 Census and has not been updated. NLIHC uses a different approach, calculating the gap between rent costs by number of bedrooms and household income for counties and metropolitan areas throughout the country. The NLIHC information can provide useful talking points in support of new affordable housing developments.

Supply-Side Data from Trade Associations, Real Estate Brokers, and Government Sources

At the national level, the NAR regularly updates housing supply statistics on its Web site (www.realtor.org/research), including quarterly data on the median sales price of existing single-family homes in 160 metropolitan areas. In a smaller number of metropolitan areas, the NAR also provides median sales prices for condominium and cooperative dwellings. The data go back three years, allowing the analyst to examine recent price trends. However, no submarket information is shown, which is a key limitation in larger metropolitan markets.

Local or state Realtor associations also collect statistics on home sales that help analysts take the pulse of the home resale market. Available historic data will include the number of homes listed and sold, median or average sales price, and the average number of days it takes for a house to sell. Realtor associations may also have summary statistics on the characteristics of homes currently listed for sale. These statistics are not always posted on Realtor association Web sites; a visit to a local brokerage may be required. If the market area being studied is fairly small, the analyst can also look at other sites—www.Realtor.com, www.zillow.com, or www.trulia.com—to see houses and condominiums currently listed for sale; the listings can be searched by municipality or ZIP code. Listing prices are not a good indicator of sales prices when market conditions are weak.

Resale price trend data are also available from the Federal Housing Finance Agency (FHFA, formerly the Office of Federal Housing Enterprise Oversight) and, in a small number of markets, from the Case-Shiller index.[21] Each of these sources has limitations: they do not include all sales and their methodologies differ. The FHFA index provides one- and five-year estimates of the percentage change in home prices for 292 metropolitan areas and metropolitan divisions on a quarterly basis. The indices are based on repeat sales and refinancings of conventional mortgages. They do not include homes with jumbo loans, nor do they include sales with subprime financing. The Case-Shiller index, published monthly by Standard and Poor's, covers only 20 metropolitan areas. It uses a three-month moving average and is published with a two-month lag. Like the FHFA index, it uses repeat sales that are weighted to account for major remodeling or neglect. The Case-Shiller index also provides a regional and national index each quarter. Unlike the NAR data, neither the FHFA nor the Case-Shiller publications provide the actual median or average prices, only the change in price levels over time.

The NAR also commissions consumer research on the characteristics of homebuyers and their housing preferences; copies of these reports can be purchased for a fee. Its economists issue forecasts of market performance and construction activity for both residential and nonresidential properties. Additional insights can be found through surveys conducted by other trade organizations, such as

Table 4-7
Apartment Supply Data Available for Purchase from REIS

Geographic coverage	Metro area
	Submarkets
Property class	Class A
	Class B/C
Time series	Quarterly (5-year history)
	Annual (12-year history)
Supply size indicators	Inventory (square feet) or units
	Inventory age
	Completions
Supply performance indicators	Occupied and vacant stock
	Vacancy rate (%)
	Net absorption
	Asking rent ($ per square foot or per unit) by number of bedrooms
	Rent change (%)
	Construction/absorption (ratio)
	Performance variation by class
	Comparisons with region and nation
	New construction status
Demographic indicators	Population, households, employment, and average household income estimates (from Economy.com)
Forecasts	Five year

Note: Obtaining all of the information shown in this table for a single submarket will require purchasing multiple reports.

the National Association of Homebuilders, the National Multi Housing Council (which represents owners of large, professionally managed apartment complexes), the American Seniors Housing Association, the National Apartment Association, and the Manufactured Housing Institute (which represents mobile home and modular housing manufacturers and dealers). Generally, their surveys are national in scope; however, some of these organizations have state and local affiliates that can provide area-specific insight into buyer or renter characteristics.

To get a better sense of local submarkets, market analysts should contact local brokers, especially when dealing with for-sale projects. National firms that specialize in apartment transactions publish metropolitan market updates and may be a source of useful background statistics and insights.

Private Data Providers

For-sale housing has its own set of unique information sources. For new or recently completed projects, Hanley Wood Market Intelligence[22] allows researchers to buy detailed information on project size, model characteristics, prices, and absorption on a per property basis. Its geographic coverage is limited to 75 markets, mostly in the Middle Atlantic states and the upper Midwest, plus Texas, California, Arizona, and Florida. The same company publishes *U.S. Housing Markets*, two quarterly reports covering permitting trends and housing market indicators, as well as magazines that cater to homebuilders.

Numerous free local apartment guides available in metropolitan areas (both online and in print form) can direct the market analyst to competitive properties in a given submarket. These booklets or magazines indicate the types of units offered and provide some rent information, as well as a list of amenities. They do not provide any averages, nor do they show historic trends. Chambers of Commerce and other local business organizations frequently maintain apartment lists that help transferees and workers with temporary assignments find housing in the area.

Some of the apartment magazines also maintain searchable Web sites. Web-only sources (such as Apartments.com and Rent.com) have search capabilities and can sort listed properties by submarket or ZIP code. It is important to verify information provided in apartment guides, because the data may not be current. Not all properties will pay to be listed in these guides.

To fill gaps in available information, private vendors such as REIS and CoStar sell information on individual apartment comparables as well as general information on inventory, rent, and vacancy trends. However, these sources do not cover every metropolitan area. In lieu of—or to supplement—available information, the analyst should search local housing magazines and newspaper real estate sections for additional comparables. The analyst can visit these properties and ask sales staff about the location of their competitors. As an example, table 4-7 summarizes the types of apartment supply data that can be purchased from REIS.

To provide supply information for seniors' housing, the National Investment Center for the Senior Housing Industry developed the NIC MAP system. This resource allows analysts to compare key market indicators (number of properties, average occupancy, market penetration as a percentage of households age 75 and older, and construction activity-to-inventory ratios) for 100 metropolitan areas, their constituent counties, and customized geographies. Data are available for independent living, assisted living, nursing home, and dementia care segments; single reports or subscriptions can be purchased.

Most information on the supply of subsidized housing comes from government sources (discussed in the next section). Novogradac & Company, a firm of certified public accountants who specialize in affordable housing, has a searchable Web-based service that provides profiles of affordable housing developments, as well as demographic estimates and five-year projections, for a fee.[23] It is worth noting that these private sources frequently do not offer complete coverage within a market because of a lack of cooperation by selected developers and owners or may simply miss a new or recently completed project. For this reason, it is critical that the market analyst drive the market to identify and visit competitive projects.

Government Sources

As indicated earlier, the Census Bureau publishes many statistical series on housing construction:

- Census building permit tabulations are the only uniform, nationwide source of information on recent construction information for individual counties or municipalities.[24] They offer data on the number of units permitted (broken out by number of units per building). However, the Bureau's building permit statistics do not indicate whether multifamily units are intended for sale or for rent. No information on unit mix, size, or pricing is provided.
- The Census Bureau also tabulates housing starts and unit completions in the United States and its four major regions, but not at the metropolitan, county, or municipal level. Reports on apartment completions distinguish between rental and condominium/cooperative units and provide benchmarks for gauging absorption rates in new buildings.
- Annual owner and rental unit vacancy rates and homeownership rate estimates for the nation's 75 largest metropolitan areas are also available from the Census Bureau, but they do not provide detail on occupancy in individual counties, municipalities, or submarkets.[25]
- HUD issues periodic market overviews for larger metropolitan areas.[26] Again, local submarket data may be limited, but information is provided at the county level. HUD also publishes *U.S. Housing Market Conditions*, a quarterly source of current and historic statistics and insights regarding housing performance nationally and regionally.[27] Each issue provides a narrative overview of supply and demand in each census division and features more detailed examination of a number of metropolitan areas. The methodology applied by HUD is consistent between markets and can provide a useful starting point for more detailed analysis.
- HUD also has an online database that generates lists of affordable rental properties. The Web site (www.hud.gov/apps/section8/index.cfm) can be searched by state, county, municipality, or ZIP code and by number of bedrooms and whether the property serves families, senior citizens, or persons with disabilities. The information is designed for consumers, not researchers;

there is no information on the unit mix or type of subsidy, but users are given an address and a contact phone number for each property.

- State housing finance agencies will have data on affordable rental properties, but the scope and format varies widely. Some state agencies provide information only on properties where they have provided tax credits, mortgage financing, or other forms of assistance; older HUD-assisted affordable buildings and public housing properties may not be listed. As with the HUD database, details are limited but contact information is usually provided.
- Local governments in larger cities may also have databases on rental apartments or affordable housing options.

Use of secondary sources cannot substitute for field visits and conversations with sales and leasing managers regarding the types of product being marketed. Contacts with municipal planning and building staffs will also be needed to determine the number of units that are planned and approved for future development.

Overview of Case Studies

Case studies in this chapter cover a range of residential product types and methods of analysis:

- Bonita Vista Apartments on Alameda Island, in the San Francisco Bay Area, California: probability of near-term and long-term rent growth, looking at all demand and supply drivers;
- Camden County, New Jersey: single-family for-sale townhouses; and
- Costa Rica: evaluation of a site for development of a luxury-level second-home resort community, including whole-ownership single-family and townhomes and fractional-ownership townhome villas.

Notes

1. Calculation based on data from U.S. Census Bureau construction reports, *New Privately Owned Housing Units by Purpose and Design,* table Q6, www.census.gov/const/www/quarterly_starts_completions_cust.xls.

2. U.S. Census Bureau, *American Housing Survey for the United States: 2007*, tables 1A-1 and 2-1, www.census.gov/hhes/www/housing/ahs/ahs07/tab1a-1.xls.

3. Statistics Canada, www40.statcan.ca/l01/cst01/famil09a.htm.

4. A survey conducted by the NAR found that one-third of survey respondents did business with international customers between April 2006 and 2007. More than half of their customers purchased a home, accounting for 3 percent of all sales in this period. International buyers were especially active in Florida. See www.miamire.com/07IntlSurveyProfile-final-07-27-07.pdf.

5. www.manufacturedhousing.org; www.census.gov/const/C25Ann/sftotalconstmethod.pdf.

6. Note that Census Bureau statistics include an allocation for common areas such as hallways and lobbies. Apartment developers and leasing staff typically base their calculations only on in-unit living space.

7. Calculation does not include manufactured homes or mobile home shipments.

8. According to estimates from the National Multi-Housing Council, nearly two-thirds of households in New York City (66 percent) are renters; other large cities where renters are the majority include San Jose (61 percent), Boston (61 percent), Los Angeles (60 percent), Houston (54 percent), San Francisco (54 percent), Baltimore (54 percent), Dallas (53 percent), Seattle (52 percent), Chicago (51 percent), and San Antonio (50 percent) .

9. Joint Center for Housing Studies of Harvard University, *The State of the Nation's Housing: 2008,* p. 13.

10. Many nations have foreign-born population shares in excess of 20 percent because of guest-worker programs. Examples include the United Arab Emirates, Kuwait, Singapore, Jordan, and Saudi Arabia. National laws determine the extent to which foreigners are able to rent or purchase mainstream housing; in many cases, guest workers live in group quarters and do not bring their families.

11. www.census.gov/population/www/projections/tablesandcharts/table_4.xls.

12. *State of the Nation's Housing: 2008*, p. 13. The authors point out that the age distribution for African American households more closely resembles that of Whites than

that of other minorities. African Americans also have more single-parent families than other minorities do. Hispanics have more children than Asian Americans or African Americans.

13. Based on tabulations from Current Population Surveys conducted between 2000 and 2008.

14. U.S. Census Bureau, Population Division, *Cumulative Estimates of Population Change for Incorporated Places Over 100,000*, April 1, 2000, to July 1, 2007, table 2, www.census.gov/popest/cities/SUB-EST2007.html.

15. U.S. Census Bureau, *American Community Survey: 2006*, Selected Population Profile in the United States, table S0201.

16. Mike Miles et al., *Real Estate Development: Principles and Process*, 4th edition, (Washington, D.C.: ULI–the Urban Land Institute, 2007), p. 425.

17. In some states, it is also illegal to discriminate in the sale or rental of housing based on sexual orientation.

18. When market conditions are in flux, projects originally intended for sale may be converted to rental before they are completed. Permit-issuing jurisdictions usually do not have the legal authority to challenge such shifts as long as the built project conforms to the approved site plan and zoning provisions.

19. Census Bureau research indicates that 2.5 percent of permitted units nationwide are not started and 4 percent of starts are not completed. Note that the Census Bureau counts townhouse units as single-family homes, but local jurisdictions may consider them to be multifamily homes.

20. www.nlihc.org/oor/oor2008.

21. Standard & Poor's Case-Shiller index measures housing markets in 20 metropolitan regions across the United States. It is published monthly.

22. www.hwmarketintelligence.com.

23. http://compsmart.novoco.com.

24. www.census.gov/const/www/permitsindex.html.

25. www.census.gov/hhes/www/housing/hvs/hvs.html.

26. www.huduser.org/publications/econdev/mkt_analysis.html.

27. www.huduser.org/periodicals/ushmc.html.

Case Study 4.1

Mixed-Income For-Sale Townhouses: Mount Ephraim, New Jersey, 2007

Margaret Sowell

Kingsway Station LLC, an experienced developer of mixed-income and affordable housing, plans to develop Kingsway Station, a 42-unit for-sale townhouse community in Mount Ephraim, New Jersey. The site is located on the east side of Centre Avenue between Kings Highway and Eighth Street. The units would be targeted to households with a mix of incomes, consistent with the requirements of the CHOICE program of the New Jersey Housing and Mortgage Finance Agency (NJHMFA).

The proposed units will be three-story townhouses containing approximately 1,700 square feet of living space. Eight of the units will have two bedrooms and 2.5 baths; the remaining 34 units will have three bedrooms and 2.5 baths. All will have one-car garages and unfinished storage space on the first level, and all will have eat-in kitchens. The developer plans to build the townhouses in two phases of 21 units each. Kingsway Station will be developed on a three-acre former lumber yard located on Kings Highway between Centre and Station avenues. The site plan calls for development of a new interior street that will be accessed from Centre Avenue and Eighth Avenue. The townhouses will face the interior street; an existing railroad track will remain behind the units.

As part of NJHMFA's CHOICE program, the proposed new townhouse units will be targeted to buyers in four income bands:

- two units with sale prices based on 45 percent of the metropolitan area's median income (AMI) and targeted to buyers with incomes at or below 50 percent of AMI;
- two units with sale prices based on 55 percent of AMI, targeted to buyers with incomes at and below 60 percent of AMI;
- two units with sale prices based on 72 percent of AMI, targeted to buyers with incomes at and below 80 percent of AMI; and
- 36 market-rate units.

Table 4.1-1 presents the proposed income targeting and sales prices for the Kingsway Station units.

The developer asked the market analysts to prepare a report that would document supply and demand conditions. The report will be submitted to NJHMFA to obtain funds under the CHOICE program, as well as to lending institutions in connection with the construction loan. Research was conducted during the summer of 2007.

Table 4.1-1
Income Targeting and Unit Pricing

Income Band	Number of Units	Proposed Sales Price ($)
Low (<50 percent AMI)	2	61,521
Middle (<60 percent AMI)	2	90,460
Moderate (<80 percent AMI)	2	139,656
Market	36	212,000

Site and Location Analysis

The proposed development will be located in the borough of Mount Ephraim, Camden County. As described in the 2006 Black Horse Pike Plan prepared by the Camden County Improvement Authority, Mount Ephraim is an inner-ring suburb of the city of Camden. Like other suburban communities along the Black Horse Pike, Mount Ephraim is also a suburb of Philadelphia through its nearby connection via the Walt Whitman Bridge. The borough is one of seven boroughs and portions of one township that are included in the delineated Black Horse Pike (Route 168) Corridor Region. It also lies within the delineated Camden Hub Region. Mount Ephraim is in the Camden MSA.

As is the case with other jurisdictions in the Black Horse Pike Corridor, Mount Ephraim is a built-up community. New development is constrained by the lack of vacant, buildable sites, and virtually all new construction projects involve the redevelopment of sites that were previously occupied by another use. The subject site is occupied by lumber yard buildings that will be demolished for the townhouse redevelopment. The site is triangular, with the narrowest tip fronting on the heavily traveled Kings Highway, which also has commercial uses. The developer proposes to create a small park area at this point, with a gazebo and signage identifying the development. The majority of the new townhouses will front on

the new interior street that will be accessed from Centre Avenue and Eighth Avenue. Both of these streets are residential in use and feel. Most of the site is surrounded by residential streets.

The backyards of townhouses will abut the railroad right-of-way of the Grenloch Industrial Track, a line owned by Conrail. The line carries only freight and reportedly is used by only a very small number of trains each week. Officials of Conrail stated that they are not able to provide more detailed information because of Homeland Security rules.

Accessibility

The property is about two blocks from Black Horse Pike, a major north-south highway that also has excellent New Jersey Transit bus service. Route 400 provides service from Mount Ephraim to the Walter Rand Transportation Center in Camden, where there is a connection to the PATCO High Speed Line. NJT Local 457 provides service from Mount Ephraim to Front and Delaware avenues in Camden, the Moorestown Mall, and points between.

Access to major roadways and limited access highways serving the region is excellent, including Route 130, I-295, I-76, and the New Jersey Turnpike. Real estate agents who were interviewed in connection with this market analysis noted that the property's access and proximity to Philadelphia makes Mount Ephraim an attractive alternative for families wanting to move from South Philadelphia.

Because of the site's excellent location, employment centers are accessible by automobile and also by public transit. Workers living in Mount Ephraim can commute easily to jobs in other southern New Jersey communities and in the city of Philadelphia.

Surrounding Land Uses

Commercial and institutional land uses are located along blocks of West Kings Highway near Kingsway Station. The Mary Bray Elementary School is located immediately west of the subject property, also on the north side of Kings Highway. Commercial establishments in the immediate area include beauty salons, a graphics store, a union hall, a real estate office, an Aikido studio, and a nail salon. A new Walgreens drugstore is opening at the intersection of Kings Highway and Black Horse Pike; other uses at the intersection include a CVS drugstore, a gas station, and Sacred Heart Catholic Church. The Mount Ephraim Borough Building and Police Station are located on Black Horse Pike about one block south of the intersection with Kings Highway. While Centre Avenue is primarily a residential street, there is a United Methodist Church located at the point where Centre and New Jersey avenues create a triangle. At the point there also is a small, very well used park that is oriented to small children. Camden County's Haddon Lake Park is about five blocks east of Centre Avenue.

Residential streets north of the subject property contain a mix of older homes along with some new infill development. Homes generally are very well maintained, and many have been upgraded and improved. Duplexes, dating probably from the 1940s and 1950s, are common south of Kings Highway near the property; existing homes generally are small. While some of the smaller homes show clear signs of wear and tear, new homes have also been completed recently in this area. There are, however, no recently built townhouse developments nearby. Consequently, Kingsway Station will offer a unique opportunity: new constructions at prices that are more affordable than new single-family homes in Mount Ephraim and surrounding communities. Another likely benefit of the development is that it will encourage additional home improvement and revitalization activity in the borough, where the median age of homes was 50 years at the time of the 2000 Census.

Shopping and Services

Businesses located along Black Horse Pike provide a range of shopping and services. In addition, an older shopping center less than one mile north of the subject property has been modernized and a second center has been built adjacent to it. The two centers now at this location include a Wal-Mart, a supermarket, a pharmacy, an office supply store, an optician, women's apparel stores, and restaurants among their tenants. Another community shopping center is located about 1.3 miles south on Black Horse Pike; this center has another supermarket, a KMart, a dollar store, and smaller shops and restaurants.

Mount Ephraim has one K–3 elementary school, located next to the subject property. Children in grades four through eight attend Kershaw School, which is located on Black Horse Pike about three blocks south of the Kings Highway intersection. Audubon High School, located about 1.2 miles from the property, serves Mount Ephraim. The schools serving Mount Ephraim are considered to be good, and they are a positive factor in location deci-

sions by families with children. Camden County College, Rutgers University, and Rowan University have campuses in downtown Camden that are readily accessible by New Jersey Transit.

Our Lady of Lourdes Medical Center is located about four miles north of the subject property, and Cooper Medical Center in Camden is about five miles north. Both hospitals are regional medical centers.

Market Area Definition

To determine the market area for the proposed Kingsway Station townhouses, the market analysts interviewed real estate agents and others knowledgeable about home sales in Mount Ephraim and surrounding communities. They asked specifically about the communities that prospective purchasers consider when looking for a home in this part of suburban Camden County. They considered road networks, mobility patterns, and lifestyle preferences reported during interviews, and economic and demographic characteristics. The analysts inquired initially about competitive townhouse developments in the area, only to learn that there are no new developments of this kind.

Based on the research conducted, the analysts delineated a primary market area (PMA) for Kingsway Station that includes older communities in southwestern Camden County, including those located in the Black Horse Pike corridor from Oaklyn to Runnemede. The PMA includes the following places:

- Mount Ephraim;
- Audubon;
- Audubon Park;
- Barrington;
- Bellmawr;
- Brooklawn;
- Gloucester City;
- Haddon Heights;
- Oaklyn; and
- Runnemede.

Demographic Characteristics

Table 4.1-2 summarizes demographic characteristics for the PMA. Data for Mount Ephraim Borough and Camden County are provided for comparison. The data were supplied by ESRI, a major demographic data vendor that provides data from the most recent U.S. Census, as well as proprietary current-year estimates and five-year projections.

The following key points can be drawn from the data:

- Reflecting the older, built-up nature of the places comprised by the PMA, its population declined from 70,030 to 67,231 from 1990 to 2000. ESRI estimates for 2007 indicate that the PMA's population stabilized during the seven-year time frame from 2000 to 2007. From 2007 through 2012, the population is projected to remain stable, showing a slight annual growth rate of 0.1 percent.
- Mount Ephraim is a small community with an estimated 2007 population of only 4,575. ESRI estimates a small amount of population growth from 2000 to 2007, which is projected to continue over the subsequent five years.
- Not surprisingly, the number of households in the PMA also declined since 1990, but at a slower rate than the population. The steeper declines in population result from the aging of the population, fewer children per family, and the emergence of single-person households. The number of households in the PMA is expected to increase slightly from 2000 to 2012, with growth of 457 projected. In comparison, the household growth rate in Mount Ephraim has been faster than that of the PMA as a whole since 1990, a trend that is projected to continue. The household growth rate in Camden County has been greater than that seen in the PMA and the borough; this pattern will also continue.
- In 2007, the average household in the PMA is estimated to contain 2.49 persons, smaller than the average size of 2.66 in Camden County. Like the broader PMA, Mount Ephraim also has smaller households, with an average size of 2.45 persons. These small household sizes in the PMA and borough suggest a market for the two- and three-bedroom units that are proposed for Kingsway Station.
- Estimates of the population by age indicate that the pattern in the PMA during 2007 was one of a population that has aged and is continuing to age. With a median age of 40.8, the population overall is older than the median age of 36.5 estimated for the U.S. population. The borough's population is even older than the population in the PMA, with a median age of 42.0 during 2007.

Table 4.1-2
Selected Demographic Characteristics of the Mount Ephraim PMA, Mount Ephraim Borough, and Camden County

	Mount Ephraim PMA	Mount Ephraim Borough	Camden County
Population			
1990 Census	70,030	4,517	502,824
2000 Census	67,231	4,495	508,932
2007 estimate	67,068	4,575	522,763
2012 projection	67,471	4,627	533,057
Change, 1990–2000 (%)	–0.04	0.00	0.01
Change, 2000–2007 (%)	0.00	0.02	0.03
Change, 2007–2012 (%)	0.01	0.01	0.02
Households			
1990 Census	26,897	1,788	178,758
2000 Census	26,841	1,818	185,744
2007 estimate	27,047	1,864	192,372
2012 projection	27,298	1,890	197,020
Change, 1990–2000 (%)	–0.2	1.7	3.9
Change, 2000–2007 (%)	0.8	2.5	3.6
Change, 2007–2012 (%)	0.9	1.4	2.4
Average Household Size, 2007 Estimate	2.47	2.45	2.66
2007 Population by Race/Ethnicity (%)			
White	92.8	96.2	66.6
African American	2.1	0.5	19.3
Asian	1.9	0.9	5.0
All other	3.2	2.4	8.8
Hispanic origin	4.3	3.5	12.4
2007 Population by Age (%)			
Under 15	16.9	17.2	20.2
15–24	11.7	11.3	13.9
25–34	12.7	11.2	12.0
35–44	13.0	15.1	14.9
45–54	16.6	17.2	15.2
55–64	13.4	12.0	10.9
65–74	7.4	5.9	6.0
75+	8.5	10.3	7.0
Median Age, 2007	40.8	42.0	37.7

Table 4.1-3
Households by Household Income in 2007 and 2012, Mount Ephraim PMA, Mount Ephraim Borough, and Camden County

	Mount Ephraim PMA		Mount Ephraim Borough		Camden County	
	2007 Estimate	2012 Projection	2007 Estimate	2012 Projection	2007 Estimate	2012 Projection
Total Households	27,047	27,298	1,864	1,890	192,372	197,020
Median Household Income ($)	55,429	64,362	56,505	65,551	60,103	69,586
Average Household Income ($)	66,278	79,058	66,404	78,258	77,568	92,701
Share of Households by Income (%)						
Under $15,000	8.9	7.1	9.7	7.7	10.5	8.8
$15,000–$24,999	10.3	8.1	11.5	8.7	8.7	7.1
$25,000–$34,999	10.3	8.3	8.7	8.5	9.0	7.1
$35,000–$49,999	15.0	14.2	13.5	12.4	13.5	12.4
$50,000–$74,999	20.4	19.8	21.5	19.4	18.4	17.8
$75,000–$99,999	17.4	16.1	16.6	16.5	16.6	15.0
$100,000–$149,999	12.5	18.5	13.3	17.7	13.8	18.6
$150,000–$199,999	3.2	4.5	3.4	5.7	5.4	6.2
$200,000+	1.9	3.5	1.8	3.4	4.2	7.2

Sources: U.S. Bureau of the Census, ESRI, RES Advisors.
Note: Percentages may not add due to rounding.

In 2007, median income in the PMA was estimated at $55,429; an increase to $64,362 is projected for 2012. Table 4.1-3 presents the percentages of households in 2007 and 2012 that are estimated to be in each income band.

Although the 2007 and 2012 estimates of households by income are influenced by inflation, it is important to note that the largest percentage of households in the PMA (20.4 percent) has 2007 incomes ranging from $50,000 to $74,999. An additional 17.4 percent of households have incomes ranging from $75,000 to $99,999. In the PMA, most households with incomes greater than $50,000 will be homeowners. Households in these two income bands constitute a large share of the demand for the proposed Kingsway Station townhouses. Also, an estimated 15.0 percent of households have 2007 incomes from $35,000 to $49,999, which is the range for some of the six affordable units that are planned for the proposed development.

Housing Characteristics

As seen in table 4.1-4, homeowners occupy an estimated 70.3 percent of all housing units in the PMA in 2007. This exceeds the national homeownership rate of 68.2 percent registered in the second quarter 2007. The percentage of owner-occupied housing units is particularly high in Mount Ephraim Borough (79.6 percent). Vacancy rates in both the PMA (4.4 percent) and the borough (3.3 percent) are well below the countywide average of 7.0 percent. These data on housing occupancy and tenure are consistent with the pattern of the borough as an attractive, affordable place to buy a home. It must be noted, however, that homeownership rates are beginning to fall nationwide as escalating prices hamper affordability.

Housing Permits

As indicated previously, the places comprising the PMA are built up, providing few opportunities for new construc-

Table 4.1-4
Housing Occupancy and Tenure in the PMA and Mount Ephraim Borough

	Mount Ephraim PMA			Mount Ephraim Borough		
	2000	2007	2012	2000	2007	2012
Total Housing Units	28,086	28,303	28,561	1,881	1,928	1,955
Share (%)						
Owner occupied	67.8	70.3	69.8	77.4	79.6	79.2
Renter occupied	27.7	25.3	25.8	19.3	17.1	17.4
Vacant	4.4	4.4	4.4	3.3	3.3	3.3

Sources: 2000 Census; ESRI; RES Advisors.

tion except when redevelopment sites become available. Permit data compiled by the U.S. Bureau of the Census confirm that very low numbers of residential permits for new privately owned housing units have been issued in recent years. From 2004 through the first seven months of 2007, permits were issued for only 416 new units in the entire PMA, of which 12 were in Mount Ephraim.

Housing Values

ESRI estimates of housing value indicate the rapid increases that have occurred from 2000 to 2007. The 2000 Census reported that the average home value in the PMA was $98,488. By 2007, the median home value is estimated to have risen to $215,999; a further increase to $245,674 is projected by 2012.

Probably because of the age of its housing, the values of homes in Mount Ephraim have not kept pace with values in the PMA overall. In 2000, the median value was $94,311, and it increased to $202,977 by 2007, or about $13,000 lower than in the PMA overall. The combination of a good quality of life, excellent access, and lower prices for homes should help Mount Ephraim attract new residents who will be interested in renovating or replacing deteriorated older homes. Housing in Mount Ephraim will remain more affordable than in suburban Camden County overall.

Census data also indicate that the PMA's housing stock is very old. Of the 27,986 housing units in the PMA in 2000, only 3.5 percent were built between 1990 and 2000, while 87.7 percent of all units were built before 1970.

Economic Conditions

From May 2006 to May 2007, total nonfarm employment in the Camden Labor Area grew by 9,900 (not seasonally adjusted). The Department of Labor reported that the gains were caused by increases in the private service-providing sector (+9,800) and government (+2,200), partially offset by losses in the goods-producing sector (−2,100). For the Philadelphia region, the Federal Reserve *Beige Book* issued in September 2006 noted, however, that pace of business expansion appeared to be easing. The report indicated that firms in the region generally anticipate continued growth, but at a slower pace.

From 2001 to 2006, the Camden metropolitan area posted 1.5 percent employment growth, while no growth was seen in the Philadelphia metropolitan area. Moody's Economy.com forecasts employment growth of 1.3 percent in greater Camden from 2006 to 2011. For the Philadelphia portion of the region, growth of only 0.7 percent is projected over the five-year period. The *Beige Book* noted a slowdown in sales of both new and existing homes, with growing inventories.

Nonresidential building activity remains strong, with several office, hospital, college, warehouse, and shopping center projects beginning over the year. Economic reports consistently note that the high degree of diversity in the area's economy tends to help it avoid major downturns. Both Camden and Philadelphia have diverse economies and relatively low exposure to declines in manufacturing. Job growth has been steady, including new high-skill, high-earnings jobs that have contributed to income growth.

Employment is expected to increase over the remainder of 2007, although construction employment is expected to continue to be adversely affected as a result of the slow market for new homes. Consumer spending is expected to moderate as a result of the housing downturn, but not to the extent expected in many other parts of the country.

Housing Demand

Demand for homeownership units is normally generated by (1) increases in the number of households in a market area, through either new household formation or the in-migration of additional households; (2) the need to replace obsolete housing units and those that are removed from the stock through demolition; (3) shifts in housing tenure as renters residing in the PMA decide to become homeowners; and (4) changes in household income and the affordability of units that are available in the marketplace.

ESRI projects that the number of households in the PMA will increase by 251 between 2007 and 2012. This number is credible because of the very low number of permits for new residential units that can provide housing to accommodate growth. Tenure estimates for 2007 and 2012 indicate that about 70 percent of households are homeowners. Based on these tenure patterns, a total of about 176 new homeowner households can be expected to be added in the PMA between 2007 and 2012.

Based on national averages, approximately 1 percent of the total housing stock should be replaced annually because of obsolescence and losses to the inventory from fires and other disasters. The housing stock in the PMA is especially old, and there are very few vacant structures. Therefore, the 1 percent standard probably is at least realistic, if not somewhat conservative for the PMA. The ESRI estimate of owner-occupied units in 2007 indicates about 19,900 such units in the PMA. Applying the 1 percent standard suggests a replacement demand of almost 200 homeownership units in the PMA annually, or approximately 1,000 homeownership units over five years. Gross demand for ownership housing in the PMA—that generated by new households added and by replacement needs—is estimated to total 1,176 homeownership units during the five-year period from 2007 to 2012.

While it is important to understand the PMA's net demand for new homeownership units generated by household growth and replacement needs, it is equally critical to evaluate the depth of the target pool of income-qualified households in the age brackets of likely purchasers of units at Kingsway Station. Based on discussions with Realtors active in the PMA, the target market for the units that are proposed are households headed by people age 25 to 64. Realtors indicated that Mount Ephraim and nearby communities are first-time homebuyer markets, because housing is more affordable and schools are good. Moreover, there is broad-based demand from households that are seeking moderately priced new construction, which is in short supply in the PMA.

Table 4.1-5 provides detailed tabulations for the PMA of households in different income bands cross-tabulated by age cohorts for 2007 and 2012. Income bands are presented in current year dollars, not constant dollars; thus these figures reflect nominal rather than real changes in income levels.

Demand for Affordable Units

Based on estimated sale prices, loan-to-value ratios, homeowner's insurance, and real estate taxes, Kingsway Station's six affordable units will serve households with incomes ranging from about $33,500 to $59,571. The lowest end of the range is the minimum income for a household purchasing a three-bedroom unit priced for a household earning 45 percent of AMI; the maximum is the New Jersey Council on Affordable Housing's income limit at 80 percent of AMI for a three-bedroom unit. For three-bedroom units, an average household size of 4.5 persons is assumed. A downpayment of 5 percent of the sale price is assumed, with the balance financed by a 30-year mortgage at a 6.5 percent interest rate. Estimates of property insurance and taxes are included in the monthly payment amounts.

If an even distribution of households headed by those age 25 to 64 is assumed in the three income bands represented in this range, a total of 4,955 households in the PMA may be within the eligibility range for the six affordable units in 2007. To sell these six units, Kingsway Station would need to capture only 0.1 percent of age- and income-qualified households. This very low capture rate is considered to be very achievable. Although the number of households with incomes ranging from $33,500 to $59,571 is projected to decrease to 4,635 households by 2012, the required capture rate still would be less than 0.1 percent.

Table 4.1-5

Households by Age and Household Income in the Mount Ephraim PMA, 2007 and 2012

	Householder Age Cohorts								
Income Band	**15–24**	**25–34**	**35–44**	**45–54**	**55–64**	**65–74**	**75 +**	**Ages 25–64 by Income Band**	**Totals by Income Band**
2007									
Under $15,000	86	151	133	287	307	372	1,063	878	2,399
$15,000–$24,999	74	261	314	269	318	468	1,085	1,162	2,789
$25,000–$34,999	109	341	415	342	457	494	641	1,555	2,799
$35,000–$49,999	150	740	929	738	625	380	493	3,032	4,055
$50,000–$74,999	122	851	1,343	1,274	946	524	464	4,414	5,524
$75,000–$99,999	55	763	1,121	1,445	723	312	293	4,052	4,712
$100,000–$149,999	60	308	698	1,232	732	143	207	2,970	3,380
$150,000–$199,999	41	111	111	235	149	50	173	606	870
$200,000 and over	28	47	79	104	129	64	68	359	519
Total Households	725	3,573	5,143	5,926	4,386	2,807	4,487	19,028	27,047
2012									
Under $15,000	69	134	72	215	254	365	821	675	1,930
$15,000–$24,999	55	208	209	228	262	435	807	907	2,204
$25,000–$34,999	82	260	272	259	437	462	493	1,228	2,265
$35,000–$49,999	144	755	736	690	652	414	478	2,833	3,869
$50,000–$74,999	105	872	1,116	1,205	1,033	610	452	4,226	5,393
$75,000–$99,999	42	787	880	1,246	790	345	310	3,703	4,400
$100,000–$149,999	76	448	918	1,711	1,255	292	358	4,332	5,058
$150,000–$199,999	39	198	138	302	208	118	220	846	1,223
$200,000 and over	30	88	110	178	278	160	112	654	956
Total Households	642	3,750	4,451	6,034	5,169	3,201	4,051	19,404	27,298
Absolute Change in the Number of Households, 2007 to 2012									
Under $15,000	(17)	(17)	(61)	(72)	(53)	(7)	(242)	(203)	(469)
$15,000–$24,999	(19)	(53)	(105)	(41)	(56)	(33)	(278)	(255)	(585)
$25,000–$34,999	(27)	(81)	(143)	(83)	(20)	(32)	(148)	(327)	(534)
$35,000–$49,999	(6)	15	(193)	(48)	27	34	(15)	(199)	(186)
$50,000–$74,999	(17)	21	(227)	(69)	87	86	(12)	(188)	(131)
$75,000–$99,999	(13)	24	(241)	(199)	67	33	17	(349)	(312)
$100,000–$149,999	16	140	220	479	523	149	151	1,362	1,678
$150,000–$199,999	(2)	87	27	67	59	68	47	240	353
$200,000 and over	2	41	31	74	149	96	44	295	437
Total Households	(83)	177	(692)	108	783	394	(436)	376	251

Sources: ESRI; RES Advisors.

Table 4.1-6
Home Sales in PMA Zip Codes, Second Quarter 2007

Zip Code	Places	Avg. Price Q2 2007 ($)	One-Year Change (%)	Change, Homes Sold Q2	Homes Sold, One Year (%)	Avg. Days on Market	Sale/List Price (%)
08007	Barrington	221,500	-0.18	17	54.55	78	97.5
08030	Gloucester Cty, Brooklawn	140,700	16.76	70	4.48	57	96.9
08031	Bellmawr	179,000	-4.43	39	-11.36	69	98.7
08035	Haddon Heights	281,700	-2.42	20	-16.67	51	96.0
08059	Mount Ephraim	171,200	-3.17	18	14.29	82	96.9
08078	Runnemede	213,400	18.42	28	-30.00	78	99.4
08106	Audubon, Audubon Park	228,800	-11.18	35	12.90	58	97.8
08107	Oaklyn*	178,900	-2.61	46	-16.36	69	97.9

Source: TREND Economic and Market Watch Report, Second Quarter 2007.
Note: ZIP codes are not necessarily contiguous with municipal boundaries.
*Also includes portions of Haddon Township and Collingswood.

Demand for Market-Rate Units

The 36 market-rate units are expected to attract households in the income band from $75,000 to $99,999. While some more affluent households might be interested, higher-income buyers are likely to prefer larger, more expensive homes. Using the same assumptions as for the affordable housing units, a household would need an income of about $74,500 to afford to purchase a market-rate unit at Kingsway Station.

As indicated in table 4.1-5, the number of household heads in 2007 aged 25 to 64 with incomes in the $75,000 to $99,999 income range is 4,052; by 2012 the number is projected to decline to 3,703. Much of the decline will result from bracket creep, as a result of inflation. For the 36 market-rate units, the required capture rate in 2007 would be 0.9 percent; for 2012, the capture rate would be about 1 percent of households in the target age and income groups. These capture rates are considered to be very achievable.

Housing Supply Analysis

The TREND Report issued by the Multiple Listing Service for the 13-county Philadelphia-Camden-Wilmington area provides quarterly data on housing market conditions. The report for the second quarter of 2007 indicates an average price of $223,900 for 1,788 homes sold in Camden County. That price increased from the first quarter of 2007, when 1,414 homes were sold at an average price of $209,600.

Among the eight ZIP codes totally or partially within the PMA, average sales prices during the second quarter of 2007 ranged from a low of $140,700 (Gloucester City–Brooklawn) to a high of $228,800 in Audubon and Audubon Park. Only two of the eight ZIP codes showed price increases during this period. ZIP codes with lower average prices had smaller percentage declines or an increase in the average sale price. Despite market concerns, the data show that sales prices during the second quarter were near list prices in the ZIP codes represented in the PMA, and the average number of days that homes were on the market was not exceptionally high in any ZIP code.

In the Mount Ephraim ZIP code, 18 homes sold during the second quarter of 2007. The average home was on the market for 82 days but sold at 97 percent of list price. The average sale price there dropped almost 3.2 percent between the second quarters of 2006 and 2007. During this time frame, 70 units in the borough were sold at an average price of $180,000. With little new construction underway, it is reasonable to assume that the sales were primarily older, existing homes. Three sales were at prices ranging from $200,000 to $299,999; these likely were the new homes that were sold recently. The median sale price for three-bedroom units during the first six months of

2007 was $177,000, and 22 of 28 homes were sold with prices ranging from $150,000 to $199,999.

New Construction Activity

The PMA has no new townhouse developments. However, there are new townhouse developments elsewhere in suburban Camden County, notably in Cherry Hill and Voorhees, with asking prices starting above $300,000. Two new duplex units at 116 and 118 Centre Avenue in Mount Ephraim sold early in 2007 for about $200,000.

In most of the jurisdictions within the PMA, new homes are single-family detached units with base prices between $255,000 and $300,000. The exceptions are Haddon Heights and Audubon, where asking prices for new single-family homes can be in the low to mid $400,000s. Most of the new homes are two-story units with one-car garages, three bedrooms, and 1.5 to 2.5 baths.

The only new subdivision of single-family detached homes offered for sale is Meadowbrook Run in Gloucester City; it is ultimately expected to include 63 homes. Meadowbrook Run is located about 1.2 miles from the subject property on a site that is also adjacent to the Grenloch rail line. Initially, base prices were as low as $245,000 for a home with four bedrooms, 2.5 baths, a full basement, and a two-car garage. In 2007, base prices increased, ranging from $259,900 for a unit with 2,164 square feet to $279,900 for a 2,182-square-foot home. The typical lot size is 5,500 square feet. Refrigerators, garbage disposals, washers, and dryers are not included in the base price; other appliances are standard. The most expensive home has a den. The first phase of the development included 38 homes, and 37 had been sold as of July 31, 2007. The sales pace for the homes averaged 3.24 units per month as of the same date.

Proposed Additions to Supply

A second phase of the development in Gloucester City, with 25 additional homes, has been proposed. Two other developments that were planned in Gloucester City have been placed on hold. A Realtor in Mount Ephraim controls a small infill parcel that he would like to develop with eight townhouses, but the proposed development is only in the initial concept stage. When the for-sale housing market stabilizes, it is likely that additional small infill developments will be completed within the PMA jurisdictions. Officials at the Camden County Improvement Authority did not know of any larger-scale planned projects.

Sale Prices, Absorption, and Buyer Profiles

The market analysts interviewed Realtors who are active in the PMA communities, and the consensus was that the proposed Kingsway Station townhouses would be very marketable with base prices starting at $199,900 and averaging between $210,000 and $215,000. Mount Ephraim is reported to be a strong market for first-time homebuyers. The main attraction is affordability and the good schools serving the borough.

Buyer targeting for the six affordable housing units will be consistent with CHOICE program guidelines. During initial marketing, the market analysts recommend that smaller two-bedroom, 2.5-bath units be offered at a base price of $199,900. Three-bedroom, 2.5-bath homes that will be sold in Phase I should command sales prices in the $210,000 to $215,000 range. The developer should expect a price increase of 5 percent for Phase II units as the market strengthens and Kingsway Station gains positive reputation in the market.

Absorption of Phase I units is estimated to be similar to the pace at Meadowbrook Run. Although units at Kingsway Station will be smaller and will be townhouses, their location in Mount Ephraim is a competitive advantage. Moreover, the homes at Kingsway Station will be more reasonably priced in a market where shrinking affordability is a growing problem. Finally, the current downturn in the sales housing market should run its course by the time that Phase I of Kingsway Station is completed. For these reasons, the market analysts anticipate that the sales pace will range from three to four units per month, assuming that the homes are built with the features and amenities that are planned.

Kingsway Station buyers are expected to be primarily first-time buyers, consistent with reports of Realtors familiar with the PMA. They will be drawn from Mount Ephraim and surrounding PMA jurisdictions, from South Philadelphia, and from nearby suburbs that do not have a stock of affordable sales housing. It is likely that a sizable percentage of purchasers will be nonfamily households including single people and unmarried couples sharing a home. Although Mount Ephraim and other PMA jurisdictions are home to a relatively high percentage of senior households,

the fact that the units will have three stories is likely to limit the number of older buyers.

Home Features and Amenities

Preliminary information supplied by the developer indicates that the proposed townhouses will contain an average of 1,700 square feet of heated space. They will include 2.5 baths, a large storage area on the first level in addition to the garage, and a family room adjacent to the kitchen. The units will be built with energy-efficient heating and cooling systems and other energy-saving features. Realtors reported that a family room or a finished basement is needed, and a garage is a very important feature.

The market analysts recommend other features:

- Window blinds for any front windows that are not bays or bows.
- An appliance package included in the base price, or as an option that can be wrapped into a mortgage, including dishwasher, disposal, refrigerator, and range.
- Optional upgrades for kitchen cabinets and countertops. Vinyl flooring should be standard in kitchens with upgrades offered as options.
- Vanity sinks and vinyl flooring in bathrooms. Ceramic tile in baths, including tub surrounds, should be offered as an upgrade.
- Washer/dryer hook-ups.
- Wall-to-wall carpeting.
- Vinyl flooring in the entrance hallway.
- Wiring for cable and high-speed Internet.
- A small deck as a standard feature with a larger deck and patio optional.
- Optional fireplaces in some units.

Summary

The communities in the PMA have traditionally offered older, single-family attached and detached homes at affordable prices. Sale prices increased dramatically over the past few years. Despite the current downturn in home sales and new housing construction, home prices generally have remained stable.

Kingsway Station will be a new type of development in the PMA because it will offer townhouses. The market analysts did not identify any new townhouse developments in the PMA and identified only one large development of single-family homes under construction. The features and amenities proposed for the new townhouses should make them very marketable, given the affordable pricing. Realtors who were interviewed in connection with this market analysis consistently stated that the type of units being proposed at the subject site in Mount Ephraim will be very appealing to first-time buyers now living in the delineated PMA, other suburbs, and South Philadelphia neighborhoods. The market analysts share that opinion.

Epilogue

Construction at Kingsway Station began in May 2008, and the first of its seven buildings was completed in January 2009. Each building has four to eight townhouses, ranging in size from 1,787 to 1,988 square feet. The initial base price for the market-rate units was $189,900. The six affordable units were sold by lottery with prices ranging from $62,000 to $140,000, depending on buyers' income.

As of June 2009, three buildings were completed and two were under construction; 27 units had been sold. Market-rate homes are listed at prices ranging from $203,900 to $219,900 in June 2009, and sale prices are averaging more than $200,000. Most of the buyers are first-time homeowners, generally singles and couples. Only five children live in the first 27 units sold. The developer is satisfied with the sales pace of two to 2.5 units per month, given the weak housing market conditions. Phase II construction is expected to begin in September 2009.

Case Study 4.2

Rental Apartments: Alameda, California, 2009

John Chang

Bonita Vista Apartments is a 300-unit multifamily rental property in Alameda, California, located on a small island of the same name just south of Oakland in the San Francisco Bay. The city of Alameda is moderately sized, with approximately 80,000 residents. Alameda contains the main original section of the island, with the former Naval Air Station at the western end of Alameda Island and South Shore along the southern side, as well as Bay Farm Island, which is part of the mainland and home to Oakland International Airport. The island offers a unique location at the heart of the region.

Like most of the large, institutional-quality assets in the city, Bonita Vista was constructed in the early 1970s then extensively rehabilitated in the late 1990s. The property is well positioned to vie with other local assets for tenants, with larger units and more extensive amenities than the competition.

Demand Drivers

An in-depth analysis indicates that rental demand for Alameda is driven by a combination of factors, which are discussed below.

Despite falling home prices across the region, owning a home in the city is still quite expensive, so a substantial pool of "renters by necessity" exists. Nearly 56 percent of all Alameda residents are renters, compared with the Bay Area average of about 40 percent. Furthermore, projected household growth of almost 1 percent annually through 2013 will be met with no additional competitive rental units, supporting increases in occupancy. The primary apartment demand drivers in Alameda are as follows:

- favorable demographics conducive to a renting population;
- low affordability of ownership housing;
- a cost-effective rental market;
- easy access to Oakland and San Francisco, including mass transit and rapid transit options;
- proximity to major job centers;
- strong local education and health care facilities;
- high-tech telecommunications employment within a short commute;
- strong renter demand from workers in service jobs;
- high quality of life;
- limited multifamily supply;
- empty development pipeline; and
- ongoing revitalization efforts.

Demographics

A lack of developable land, coupled with expensive housing stock, will impede population growth over the next several years but serve to buttress the apartment market for the foreseeable future. Figure 4.2-1 shows annual household growth compared with new apartment unit completions.

A significant portion of the population falls into the key renter age group of 25 to 34 years old, boding well for apartment owners. Further support for the local rental market stems from the number of moderate-income households; more than one-third of households in Alameda earn less than $50,000 annually. The estimated median household income for area residents is $70,000 per year, which is 7 percent below that of the Oakland DMSA.[1] Although the median household income in Alameda is projected to rise to $77,000 annually through 2013, incomes will still fall significantly short of qualifying for the area's median-priced home, even assuming no home price appreciation through 2013; consequently, rentals will remain the only option for a sizable portion of the local population.

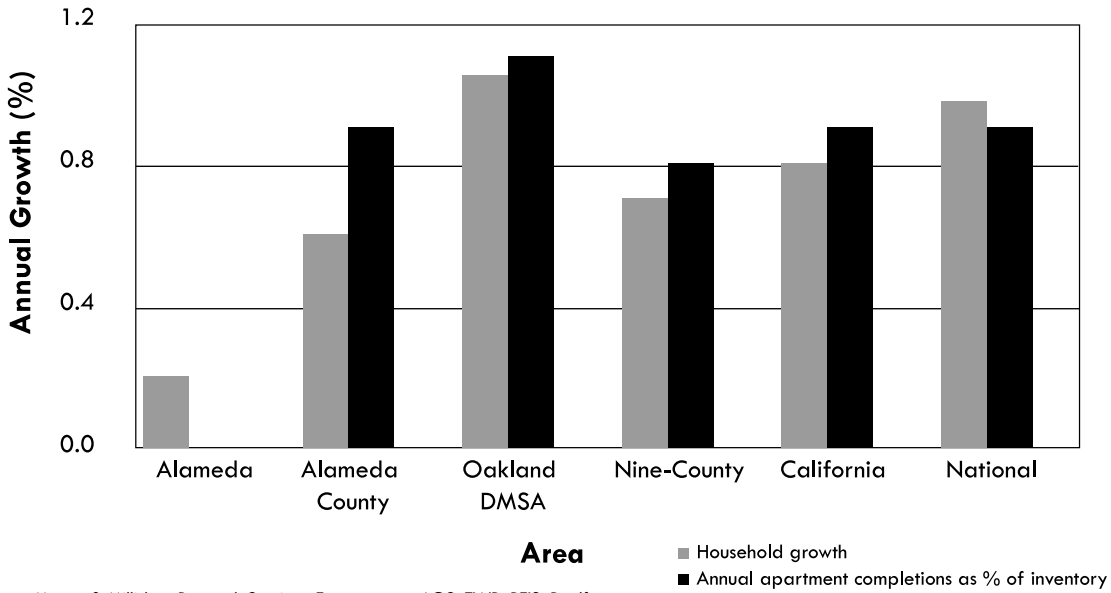
Housing Market

The uniqueness of Alameda Island is a major draw for residents; however, local home prices are at levels that create a significant disparity between owning and renting. Hence, a renter in Alameda can enjoy all the benefits of the island's distinctiveness and a high-quality lifestyle at a fraction of the price of owning a home.

Alameda's housing market faces major impediments in the area's high cost of living and relatively low median incomes. As of March 2009, the median home price for attached and detached houses in the city was $525,000, which was 145 percent, or $220,000, higher than that of

[1] Oakland DMSA is the division of the MSA that includes only Alameda and Contra Costa counties.

Figure 4.2-1
Annual Household and Apartment Inventory Growth, 2008–2013



Sources: Marcus & Millichap Research Services; Economy.com; AGS; TWR; REIS; Realfacts.

the Oakland DMSA. There is thus an affordability gap of $60,000 annually between Alameda residents' median income and the income required to pay a mortgage on a median-priced home in the city.

The average apartment rent in Alameda—$1,485 per month—is also lower than in the Bay Area as a whole. Using a standard mortgage model, the average mortgage payment is almost 220 percent more than the average monthly rent in the city. The resulting affordability gap of 120 percent amounts to nearly $1,800 per month. Renting, therefore, is an attractive draw for those who wish to take advantage of all Alameda has to offer at a significant discount over homeownership, something that is not the case for the Oakland DMSA in general.

Transportation

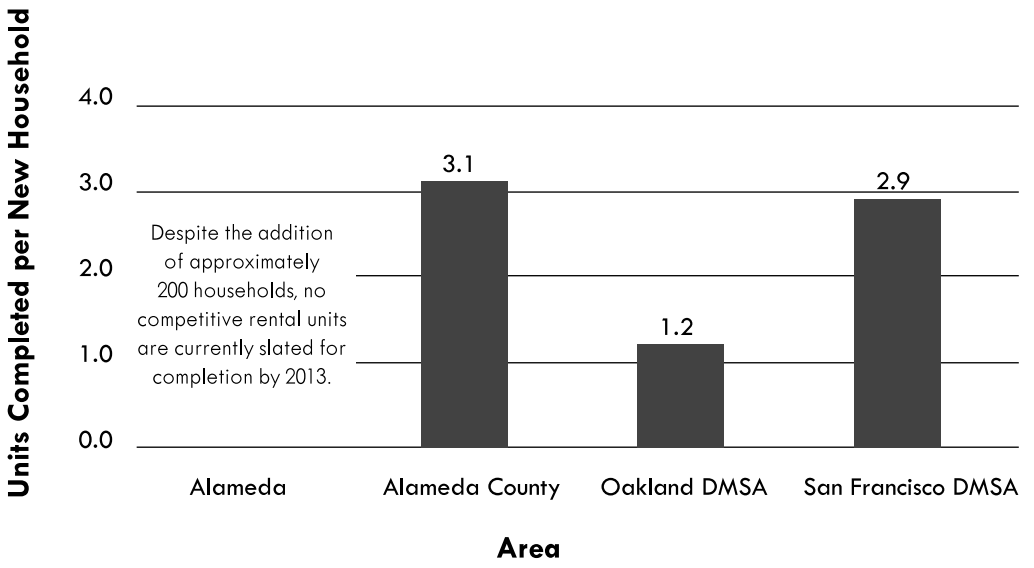
Alameda is centrally located within the San Francisco Bay Area and situated at a major crossroads of the East Bay's regional transportation network. The area is served by four interstate highways (980, 880, 580, and 80) and two major state highways (24 and 13).

Mass transit is a critical need for Bay Area residents, and the Alameda population has easy access to numerous options. Although there is no direct link on the island, three BART lines pass just east of the city, with the Lake Merritt BART station located 2.3 miles east of Bonita Vista at 800 Madison Street in Oakland. The Alameda–Contra Costa Transit District bus system serves the Oakland DMSA and includes lines to San Francisco and the peninsula, as well as connectors for Alameda residents to BART. In addition, residents can use a ferry service to reach Oakland's Jack London Square, San Francisco, or Angel Island.

Community Attributes

Alameda provides its residents with convenient access to world-class education and health care facilities. The city is served by the Alameda Unified School District, and there are multiple colleges and universities within a 15-mile radius, including the College of Alameda, the University of California at Berkley, the University of San Francisco, and the University of California at San Francisco. As for health care, Alameda Hospital is a 135-bed state-of-the-art medical center that offers 24-hour emergency services.

Figure 4.2-2
Ratio of Completions to Households Added, 2008–2013



Sources: Marcus & Millichap Research Services; AGS; Economy.com; REIS; Realfacts; TWR.

Just three miles east of the city in Oakland is the 236-bed Highland Hospital, the main acute-care hospital in the county and trauma center for the Oakland DMSA.

Recreational opportunities abound in northern California, a region known for its wealth of outdoor activities. Alameda contains 18 parks and a golf complex, while the East Bay has more than 1,150 miles of trails in its parks. San Francisco and Oakland both house professional sports teams. Alameda is located less than 20 miles from Mount Diablo; Yosemite National Park is within 150 miles; and the Sonoma and Napa valleys lie approximately 50 miles northeast of the city. Lake Tahoe, 175 miles away, offers casinos, skiing, world-class resorts, and water recreation.

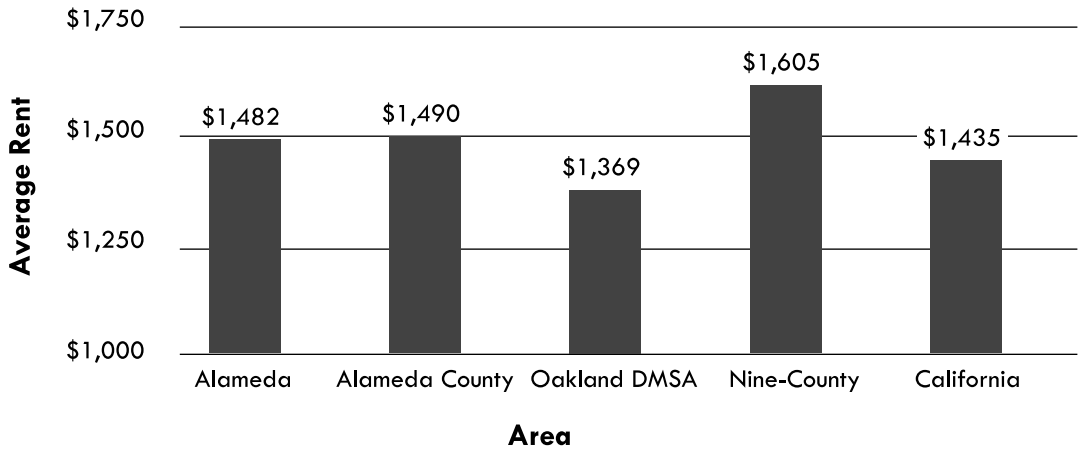
The city of Alameda provides numerous shopping and entertainment options for its residents. Alameda Towne Centre and the Webster Street shopping district are local favorites. Jack London Square, which is located across the Oakland Estuary in downtown Oakland, includes restaurants and boutique shops. The recently redeveloped Westfield San Francisco Centre and Union Square across the Bay are the heart of San Francisco shopping. The Bayfair Center shopping mall is located 15 miles south of Alameda in San Leandro and is anchored by Macy's, Kohl's and Target, as well as freestanding Century Theatres multiplex.

Employment

A significant driver of demand for Alameda apartments is the local workforce, because positions available are typically those with pay scales that preclude homeownership. While many area inhabitants commute to other parts of the Bay Area, there are still 22,300 people employed at approximately 2,500 businesses in the city. The largest supplier of jobs in Alameda is the services industry, with total employment of about 11,000 workers. The city's numerous shopping centers and eating destinations support roughly 5,300 positions. Financial, professional, and technology companies employ just over 3,200 people at firms such as Caliper Life Science and Roche Diagnostic Systems.

Access to major job centers is another significant demand driver. Alameda's proximity to the Bay Bridge enables an easy commute to San Francisco's financial district. Residents of Alameda also take advantage of the I-680 corridor, which boasts such employment centers as Bishop Ranch, Hacienda Business Park, and Pleasanton Corporate Commons.

Figure 4.2-3
Rental Rate Comparison, Q1 2009



Sources: Marcus & Millichap Research Services; Realfacts; REIS.

Supply Analysis

The lack of development of multi- and single-family properties will help buttress apartment demand in Alameda for the foreseeable future. Because the city is bordered by Oakland to the north, northeast, and south and by the San Francisco Bay to the west, developable land—with the exception of the long-stalled Alameda Point redevelopment project—is virtually nonexistent. Consequently, apartment development activity has also been extremely low. Increased construction costs and the sluggish economy play a role in keeping redevelopment at bay; however, because population and household growth will remain slight over the next several years, local rentals will see greater demand. Figure 4.2-2 shows the comparison of new households to residential unit completions for the local jurisdictions.

No competitive rentals have been added to the market in several years. Construction activity is expected to remain scant going forward, and when it picks up, most builders will concentrate on redevelopment projects geared toward for-sale housing. Currently, no competitive apartments or for-sale condominium projects are underway within the city limits. Future development will center on the Alameda Landing and Alameda Point projects.

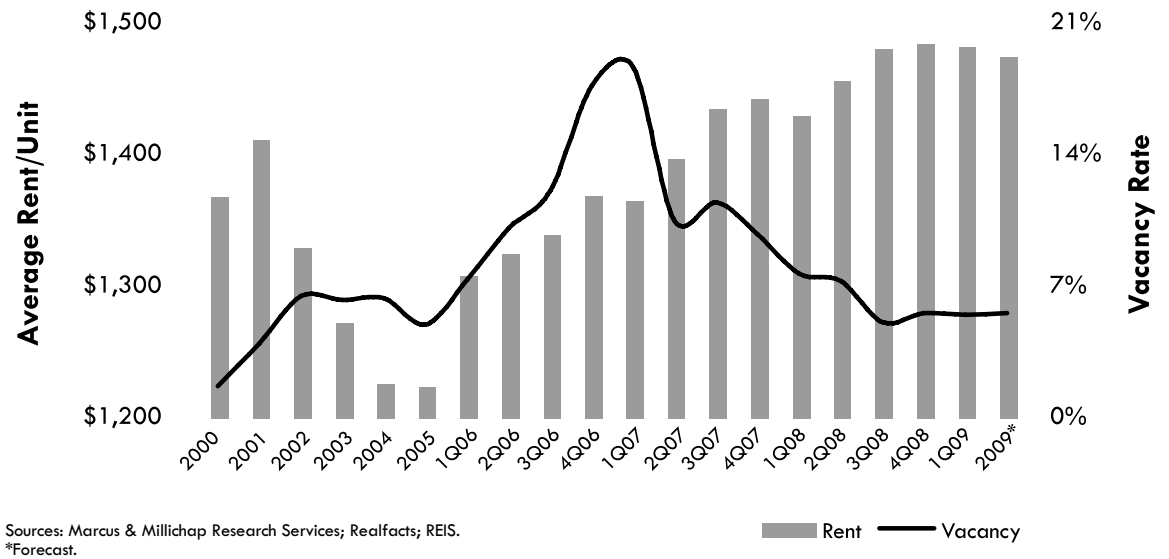
Once home to the U.S. Navy's Fleet Industrial Supply Center, Alameda Landing is a 97-acre, mixed-use development that will revitalize the area by providing new housing, office space, retail opportunities, and coveted open space. No firm completion date has been set, but the project continues to move forward in concert with the current economic climate. When completed, the project will boast 300 housing units (not yet started), up to 400,000 square feet of office space, and 300,000 square feet of retail space.

Alameda Point occupies 2,675 acres, including 1,115 acres offshore, at the western end of Alameda Island. Alameda Point, site of the former Alameda Naval Air Station, is being converted to new residential neighborhoods, shopping districts, recreational facilities, and business parks, although the exact scope and timeline of the project have yet to be finalized. The city of Alameda has been planning the redevelopment of Alameda Point since 2000. A reuse plan has been created, and according to the plan, by 2020, the city will integrate the Naval Air Station property.

Supply and Demand Balance

Current housing market conditions will continue to drive potential homebuyers into the apartment rental market. The attractiveness of the area, combined with favorable demand drivers, will support rental housing for the foreseeable future. As a result, vacancy rates in Alameda are not expected to spike, as has been the case in many Bay

Figure 4.2-4
Average Apartment Rent and Vacancy, Alameda Area



Sources: Marcus & Millichap Research Services; Realfacts; REIS.
*Forecast.

Area locales. The outlook for local apartment owners remains bright, because the out-of-reach housing market is shifting demand toward renting, creating a significant pool of renters by necessity. The market should become more able to accept and pay greater rents, especially considering the 220 percent gap between mortgage rates and rental rates.

The vacancy rate in Alameda has improved steadily since the end of 2006. Over the past two years, vacancy has plummeted a total of 1,300 basis points to a very healthy 5 percent. Vacancy in 2006 was artificially high, however, owing to the delivery of one large project that was previously removed from inventory for rehabilitation. Given that vacancy remains at such a low level, minor up-and-down fluctuations are to be expected, though vacancy is forecast to finish 2009 in the range of 5 to 5.5 percent. Heightened renter demand such as this demonstrates the appeal of Alameda and the lack of suitable alternative housing for the area's large pool of renters. Figure 4.2-4 shows average apartment rents and vacancies over time for Alameda.

As vacancy has improved, so, too, have rents. Since the fourth quarter of 2004, apartment asking rents have increased 24 percent to $1,482 per month, fairly strong by East Bay standards. Rent growth in Alameda, however, has slowed recently, while rents have declined across most of the Bay Area. Mild vacillation in rental rates exists, as overall rents in the market are expected to fall about 1 percent in 2009. Nevertheless, this decrease is modest when compared with other Bay Area locales, some of which have recorded double-digit drops so far this year.

Competitive Analysis and Outlook

Bonita Vista is a fairly distinctive property with upgraded amenities and larger apartments than its competitors. The complex features a mix of one-, two-, and three-bedroom units, some of which are two-story townhouse-style dwellings. Amenities include two swimming pools, a state-of-the-art fitness and Pilates center, a playground, in-unit washers and dryers, hardwood floors, fireplaces, microwaves, dishwashers, disposals, prewiring for high-speed Internet and satellite high-definition television, patios or balconies, and assigned, covered parking. Most other properties in the area lack fireplaces, hardwood floors, in-unit washers and dryers and prewiring, although some newer properties in Jack London Square contain these

Table 4.2-1
Competitive Project Data

	Year Completed	Year Renovated	Total Untis	Average Unit Size (Sq. Ft.)	Occupancy (%)	Rent	Rent/SF
Bonita Vista	1972	1998	300	900	98	$1,778	$1.98
Autumn's Fall	1966	2005	599	885	92	$1,872	$2.11
Chrissy Field	1974	1999	445	765	96	$1,975	$2.58
Del Oro	1973	1992	392	790	95	$1,867	$2.36
Point Prado	1973	NA	145	725	97	$1,612	$2.22
Runway	2001	NA	282	1,002	93	$2,322	$2.32
Estuary	2001	NA	310	1,100	95	$2,220	$2.02

Sources: Marcus & Millichap Research Services, AGS, Economy.com, REIS, Realfacts, TWR.
NA = Not applicable.

amenities. These assets do not compete directly with Bonita Vista, however, and the rental environment and residential feel of Alameda is significantly different than in Oakland. Table 4.2-1 shows details on the competitive projects compared with Bonita Vista.

An examination of comparable assets indicates that there is room for rent increases without surrendering returns to rising vacancy rates. Despite the added features and a strong occupancy level at the property of approximately 98 percent, rents are below market across the board by a weighted average of 10 percent. Given the current economic climate, however, any rental rate increase that is implemented would need to be monitored for market resistance. In addition, it is highly likely that rents may retreat in the coming months, but a broad double-digit drop is not expected for Alameda. In fact, a lack of three-bedroom and townhouse-style units in the market bodes well for Bonita Vista and its ability to incorporate rent gains into its operating procedures, because demand for these units remains solid. Currently, rents for a three-bedroom unit at the property are almost 13 percent below those of the market. Furthermore, at $2,450 per month, the typical mortgage payment on a median-priced home remains almost 40 percent higher. Figure 4.2-5 shows how rents compare for the various competitive projects, broken down by number of bedrooms.

Potential Market Roadblocks

National fiscal uncertainty remains an ominous prospect in the near term. Demand for rental units in Alameda will likely erode if the economy fails to rebound in a timely manner. A deepening recession and continued layoffs are potential issues for the market. Furthermore, significant rental drops in San Francisco could pose a threat to local occupancy as some residents who were previously priced out of Alameda's more expensive neighborhoods find rents in San Francisco at more acceptable levels. Conversely, because rents in Alameda are still more than 30 percent lower than those in San Francisco, residents from across the Bay could look to Alameda as a welcome reprieve from economic strains.

In the longer term, the redevelopment of Alameda Point and Alameda Landing will increase inventory levels for the city with newer properties with more amenities. Regardless of upgrades, a 30-year-old asset will have difficulty competing with Class A units unless the rental disparity is significant—which, considering development costs, is expected. Nonetheless, if inventory growth precedes demand, owners could be forced to lower rents to levels that would entice fringe renters who can afford to pay a slightly higher price. More probably, however, the completion of these units is long down the road, and any redevelopment of the area should only stand to improve its overall draw and reputation.

Apartment Rent Drivers Going Forward

The tremendous disparity present in Alameda between incomes and housing costs creates a much larger renter pool than is seen in many other Bay Area markets. Moreover, with home prices expected to remain high and

incomes posting only modest gains, the potential for rent growth should increase in the coming years. Construction also will be absent from the market for quite some time.

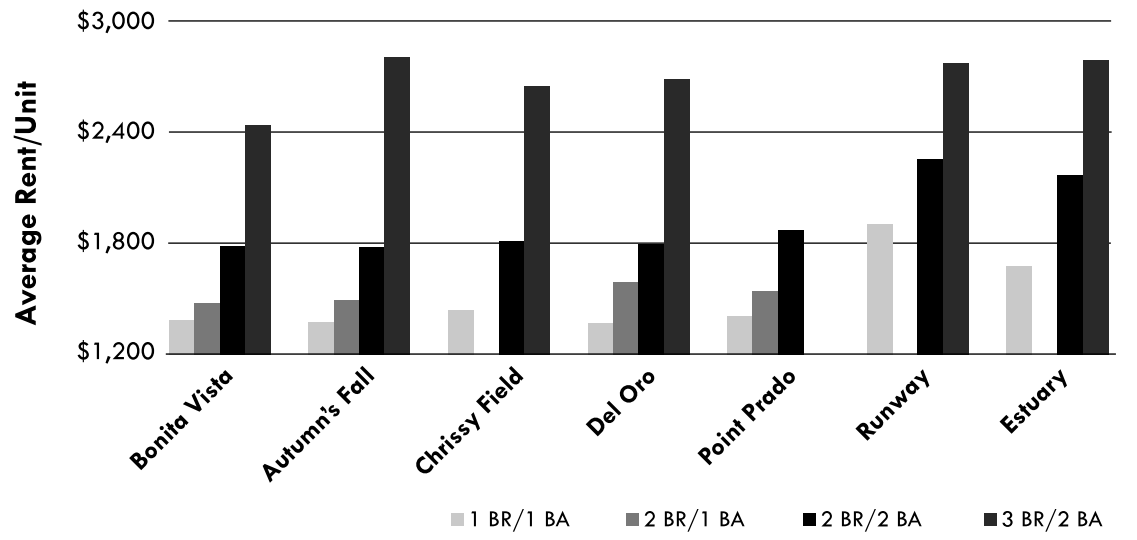
These factors, along with the area's distinctiveness, abundance of amenities, and proximity to employment centers in Oakland and San Francisco, will maintain favorable rental demand. While average rents continue to sit below the market rate, there is room for growth at Bonita Vista without sacrificing occupancy levels. Given the recessionary climate, however, any rent increases should be implemented carefully after first testing the market for resistance. Table 4.2-2 shows demographic projections along with anticipated unit increases from 2008 to 2013.

Table 4.2-2
Annual Trends, 2008–2013 (%)

	Job Growth	Population Growth	Household Growth	Unit Increase as a Share of Inventory	Income Growth
Alameda	0.4	0.5	0.2	0.0	1.8
Alameda County	0.9	0.7	0.6	0.9	2.1
Oakland DMSA	1.1	1.1	1.0	1.1	2.3
Nine-County Region	1.0	0.7	0.7	0.8	2.2

Sources: Marcus & Millichap Research Services; AGS; Economy.com; REIS; Realfacts; TWR.

Figure 4.2-5
Rent Comparable Survey, Alameda



Sources: Marcus & Millichap Research Services; Realfacts.

Case Study 4.3

Second-Home Resort Development: Costa Rica, 2007

Marta Borsanyi and Adam Seidman

A United States–based landowner is evaluating the opportunity to develop its 1,000-acre property into a luxury resort community in Guanacaste Province in Costa Rica. Located in the northwestern part of the country, Guanacaste is bordered by the Pacific Ocean to the west, Nicaragua to the north, Alajuela Province to the east, and Puntarenas Province to the south. The property includes coastal and forested interior land, with varied topography that includes elevated locations throughout.

The developer plans to develop a luxury resort community on part of the property and leave most of the acreage undeveloped. Initial plans for the resort include a five-star hotel, a signature golf course, a marina, an equestrian center, and a retail village. A variety of residential product types ranging from townhomes to large-lot single-family homes is planned. Some of the residential units are planned to be managed by the resort hotel, including separate whole and fractional ownership products.

The focus of this case study is the development of second homes in the resort village. Development opportunities outside the resort enclave and the planned nonresidential products in the resort village were also studied but are outside of the scope of this case study.

The developer and its partners seek to validate their concept and require addressing the following issues:

- characteristics of the anticipated buyers of second homes at the site;
- types of residential products, to meet the demand of future buyers;
- character of existing and future competitors;
- residential product positioning, in terms of price and specification levels, to capture future demand and drive sales; and
- absorption projections by product type.

The development team must identify the key demand drivers, assess the competitive environment, and evaluate the site in its competitive context. Challenges to the analysis, which are common to projects in developing nations, include limited market data, few built (but many planned) comparable projects, and a lack of transparency in the planning and entitlement process. This study outlines the primary and secondary research techniques used in the analysis and recommendations for a product mix that maximizes the opportunity of the site while minimizing the risk associated with its development.

Demand Driver Analysis

The first step is to identify the anticipated buyer profile: location of the buyer's primary residence, key demographic and psychographic traits, and motivation to visit and (potentially) buy a residence.

The purchase of a second home is discretionary—it is not driven by employment and life stage. Instead, second-home buyers are motivated by vacation and investment decisions.

Buyers of second-home resort products typically first experience a region as visitors. A study of tourism trends is therefore helpful in ascertaining key characteristics of the potential demand pool for residences at the site. Although a sophisticated demand analysis may not be possible because of the lack of relevant data, an ongoing assessment of available demographic, tourism, economic, and competitive information will help define and refine the project's marketing plan.

Costa Rica is the most visited of the Central American countries, owing to its stable economy, absence of violence, natural beauty, and relatively high standard of living. In fact, the World Bank ranks Costa Rica as top in Central America in terms of political stability and absence of violence. This perception of security and stability is important in attracting not only developers and investors but also visitors and homebuyers.

Defining the Primary Market Area

The primary market area, from which the majority of buyers are expected to emanate for a given project, is generally defined through analyses of secondary data sources as well as through firsthand surveys of competitive and analogous developments.

These sources indicate a close relationship between tourist arrivals and sales volume of resort-oriented second-home products. Because of Costa Rica's unique social, political, and economic stability, and proactive governmental efforts toward tourism, visitors to the

Table 4.3-1
International Air, Land, and Sea Tourist Arrivals to Costa Rica by Origin

	Year								
								2007	
Region	**1998**	**1999**	**2000**	**2001**	**2002**	**2003**	**2004**	**Number**	**Share (%)**
North America	419,648	469,996	515,853	518,595	754,982	895,370	875,959	986,474	51
Canada	42,097	45,565	52,696	52,661	74,212	86,906	88,304	—	
United States	347,442	392,556	429,725	429,093	633,640	758,134	731,236	—	
Mexico	30,109	31,875	33,432	36,841	47,130	50,330	56,419	—	
Central America	293,810	310,661	286,466	320,277	359,979	415,464	478,147	552,932	29
Guatemala	30,982	33,677	33,191	32,574	40,166	37,771	41,057	—	
El Salvador	24,741	28,572	31,149	35,054	38,264	44,873	46,414	—	
Honduras	19,380	26,400	24,338	27,174	25,540	27,719	826	—	
Nicaragua	170,059	168,447	143,142	171,583	191,398	231,712	32,550	—	
Panama	48,648	53,565	54,646	53,892	63,956	72,730	281,086	—	
Belize	—	—	—	—	655	659	76,214	—	
Caribbean	8,910	9,327	9,450	9,298	11,696	12,412	11,935	13,286	1
South America	68,851	73,340	95,612	103,917	87,127	88,394	90,906	101,142	5
Europe	127,491	141,331	151,393	150,796	208,222	232,889	234,681	245,026	13
Other Countries	24,143	26,930	29,301	28,523	30,920	34,522	33,633	36,241	2
Total	942,853	1,031,585	1,088,075	1,131,406	1,452,926	1,679,051	1,725,261	1,935,101	100

Source: Instituto Costarricense de Turismo (ICT).
Note: Columns may not total exactly because of rounding errors.

country emanate from various places, most notably the United States, Canada, and Europe.

Data from the Costa Rican governmental tourist agency, shown in table 4.3-1, reveal that North America continues to deliver the majority of tourist arrivals in Costa Rica, accounting for 51 percent, or nearly a million, of all international arrivals in 2007, whether by air, sea, or land. The remaining tourist arrivals come mainly from Central America (with 29 percent, or 553,000 passengers), and Europe (with 13 percent, or 245,000 passengers), as of 2007.

The bulk of North American arrivals into Costa Rica are from the United States, which represents approximately 84 percent of the North American share and over 40 percent of total international arrivals. The United States' share of tourists is even greater for visitors who arrive by air and specifically those who fly into the regional airport closest to the site. Not surprisingly, the major population centers of Florida, California, Texas, and New York account for more than half of the arrivals from the United States.

International airline access is a key factor in defining the primary market areas for resort developments. The site is located approximately 20 miles from one of the four international airports in Costa Rica. Daniel Oduber Quiros International Airport is experiencing rapid growth in arrivals: 355,000 in 2006, up from 141,000 the year before and just 38,000 in 2003. The airport is scheduled for a multiphase expansion and upgrade, and is projected to see 1 million tourist arrivals by 2017.

This growth in arrivals can be tied directly to increased airline service. Whereas tourists to Guanacaste Province once had to fly into the nation's capital, San Jose, and then drive 150 miles to their destination, they can now fly

directly into the province and take a short car ride to their resort destination. Miami, New York, Houston, Los Angeles, Atlanta, Dallas, and Charlotte currently have direct flights to the international airport.

These cities represent the projected core PMAs for the majority of hotel stays and residential purchases at the site. Surveys of buyer profiles at similar projects in the region will be used to confirm that these are, in fact, the key demand markets. The development team can focus its marketing efforts on attracting visitors and buyers from the source cities. This type of analysis should be conducted frequently throughout the development process to ensure that emerging PMAs are not overlooked.

Identifying the Target Buyer

Analysis of tourism trends helps uncover the key demographic traits of travelers and prospective buyers of resort products. Factors that attract travelers to a region and eventually to a development can be discerned. Potential sources of demographic information include third-party data vendors, government tourist agencies, and local real estate companies. A 2005 government-sponsored survey of tourists to Costa Rica revealed tourist demographics, as well as motivating factors for visitation, that were helpful in identifying likely buyer groups.

The average age of American visitors to Costa Rica is just under 50 years old, with 44 percent between the ages of 45 and 64 years—the postwar "baby boom." Previous studies have indicated that as this generation begins to enter retirement, its members are increasingly turning to resort destinations for relaxation and enjoyment of natural and cultural amenities. Although they generally want to live close to family in their primary residence, many—especially those from colder climates—are seeking second (and occasionally third and fourth) homes that they can enjoy for a few weeks, or even months, of the year. Studies conducted in the United States reveal that, increasingly, this group is seeking intergenerational travel and activities, including second-home communities that can be enjoyed with children and grandchildren.

Given that the developer is planning to develop a luxury resort community, it will be critical to attract visitors who have sufficient disposable income to afford stays at a five-star hotel and to potentially purchase a full or fractional share of real estate. According to a government survey, the average annual household income of American tourists to Costa Rica is just over $95,000, with 6.5 percent of all tourists earning more than $200,000. Because the survey did not differentiate among tourists earning more than $200,000, and the planned luxury product is likely to require incomes significantly above that level, additional research was required. Using available demographic information, an analysis was undertaken of the PMAs, which revealed that more than 160,000 households, or 1.1 percent of all households in cities that have direct flights into the international airport, have annual household incomes greater than $500,000. It is not uncommon for households at this high income level to own multiple vacation homes.

Once the target buyer characteristics are identified and evaluated, it is important to assess what will attract them to the region and the property. This information helps shape community and product design and eventually assists in the marketing of the development.

The government-sponsored survey revealed that the primary motivation for travel to Costa Rica is for leisure and vacation purposes. The most highly ranked recreational activities are ones that focus on the region's natural ameni-

Table 4.3-2
Preferred Recreational Activities of Tourists in Costa Rica

Activity	Number of Tourists	Share (%)
Beach and sun	1,513,249	78.2
Jungle expeditions	1,211,373	62.6
Observation of flora and fauna	1,205,568	62.3
Bird-watching	1,031,409	53.3
Volcano expeditions	988,837	51.1
Canopy	779,846	40.3
Snorkeling	431,528	22.3
Surfing	369,604	19.1
Rafting	216,731	11.2
Sport fishing	199,315	10.3
Kayaking	145,133	7.5
Scuba diving	90,950	4.7
Bungee jumping	23,221	1.2
Windsurfing	15,481	0.8

Source: Government of Costa Rica Tourist Poll, 2005.

ties. As can be seen in table 4.3-2, beaches, jungles, volcanoes, and birds top tourists' lists of desired attractions.

The findings of this research imply that visitors are seeking a unique experience in Costa Rica and are drawn by the ecotourism opportunities that the country has become famous for promoting. Implications for second-home development include the importance of preserving open space and natural amenities, and the need to tie the resort community to its surrounding environment.

The site offers many of the natural amenities that attract visitors to the region, such as pristine beaches and jungles filled with exotic wildlife. The owner's plans to keep large, contiguous areas of the project as open space will provide a marketing advantage over nearby communities that are viewed as "overdeveloped."

Conclusions from the Demand Analyses

Likely second-home buyer groups will be high-income, high-net-worth couples and families from major North American markets. The PMA includes U.S. cities with direct flights to the regional airport closest to the site, with 160,000 households earning over $500,000 annually. This target group is dominated by baby boomers and will seek communities and products that offer opportunities for intergenerational enjoyment. Buyers may even stay on as expatriates upon retirement.

Target households will probably experience Costa Rica initially as visitors seeking a unique, nature-oriented experience. Costa Rica's advantages over its Latin American neighbors include its stability, infrastructure, and natural beauty, and the heavy marketing of its ecotourism opportunities. Within Costa Rica, Guanacaste's advantages over other provinces include its dry weather, pristine beaches, and accessibility.

In order to understand what amenities, products, and messages will attract visitors and buyers to the site and differentiate it from other projects, a survey of the competition as well as a site evaluation is required.

Competitive Environment

Assessing the competitive environment is a critical step. Buyers of second homes have many options and generally can wait until they find the location and community that best matches their wants. The developer can learn invaluable information from the experience of similar developments that are already in operation.

Several questions should be answered during this stage of analysis: What is the competitive landscape locally and regionally? Against which current and future projects will the development most likely compete? What lessons can be learned from existing communities? Is there a competitive niche or advantage that the planned development can exploit?

Defining the Competitive Market Area

The competitive market area (CMA), in which the majority of projects are expected to compete with a given project, is generally defined through firsthand surveys of competitive developments, interviews with local real estate professionals, and site visits and evaluations. The CMA may vary within a project by product type—for example, a project's condominium product may compete across a different area than the same project's housing lots.

The site has a wide array of planned residential products. Interviews with the sales and marketing teams of the nearest competitors, in conjunction with visits to the site and its province, revealed that the majority of the competition would come from Guanacaste and Puntarenas provinces.

Analyzing Supply Trends

Supply trend data were sought to gain a better understanding of the current state of the market. Building permit issuance figures were available through local government agencies, and were compiled and analyzed. Building permits were up 4 percent annually in Guanacaste over the past five years, increasing from approximately 2,300 to 2,650 permits. In contrast, overall issuances in all of Costa Rica were down over the same time period. Notably, much of the growth in Guanacaste's building permits came from a significant increase in multifamily permits, from just 20 to nearly 190 in the five-year period. Trends similar to those in Guanacaste were seen in the data for Puntarenas Province.

Additional supply trend information was collected firsthand by the development team, and a sales volume and pricing database was created through surveys of the competitive market.

Assessing Local Competition

First, resort developments in the CMA were surveyed by conducting in-person interviews and assessments and in-depth phone calls with the project's sales and marketing

staff. Information about each project's history, development status, and future plans was gathered during these interviews, as well as information about visitors, buyers of residential product, and other competitive communities. Specifically, information on the residential development was collected with regard to

- location;
- developer;
- existing and planned land uses;
- resort or hotel operator;
- hotel average daily rate and occupancy rates;
- date of the project's introduction to the market;
- community amenities;
- product type(s);
- product sizes;
- mix of product;
- interior specifications and finishes;
- amenities and view orientation;
- price positioning, including premiums and service fees;
- buyer and visitor profiles; and
- absorption history.

Guanacaste Province has just a few master-planned resort communities with the scale, amenities, and luxury orientation of the planned development. These communities, which would be the most competitive with the site if marketed today, were visited and surveyed. One project included hotel-branded residences (discussed separately below), while the others offered luxury-oriented, unbranded units. All included resort hotels and resort amenities such as golf courses, marinas, and private beaches. Other nearby second-home developments were also visited and surveyed but were generally deemed not comparable to the planned development owing to their size, location, quality of product, or lack of amenities. Current listings in the local area for luxury residences within and outside these master-planned communities were also collected and analyzed.

The surveys of local communities revealed that additional competitive projects were under development a few hours south of Guanacaste Province in Puntarenas Province, so the most comparable projects from this province were included in the competitive assessment. It is important not to overlook secondary competitive nodes, especially in regions with relatively little development.

Because the developer plans a diverse offering of residential product, single-family homes, condominiums, and vacant lots were included in the assessment. Most of the developments had been actively selling for at least a few years, so both new and resale properties were included in the survey. In addition to the information previously mentioned, elements such as view potential, topography, accessibility, and marketing visibility were noted during each site visit. All this information will be used when positioning the planned project in its competitive context. Table 4.3-3 provides details on nonbranded, whole-ownership comparables.

Of the communities surveyed, five were deemed the most competitive with the subject site's unbranded, whole-ownership product in table 4.3-3. These communities included 14 condominium projects with 573 units, eight single-family neighborhoods with 385 units, and six lot-sale programs totaling 653 lots. These communities had been open an average of nearly five years at the time of the survey. Most of the homes, including the condominiums, were large and could accommodate extended families. The quality of the communities' development plans and built products was generally very high.

New condominiums ranged in size from 2,500 to 3,700 square feet, with prices from $240 to $810 per square foot. The many comparable resale condominium listings were also included in this assessment. New single-family homes in these communities were offered in sizes ranging from 2,200 to 6,300 square feet and prices from $220 to $630 per square foot. In later steps of the market analysis, each of the residential listings will be plotted on a price-to-size graph and used in developing the price positioning of the various recommended products.

Accurate absorption estimates could not be determined by product type, so they were instead analyzed by community. Community absorption rates for built product ranged from two to nearly seven sales per month, as measured over the lifetime of the project, with a total of approximately 17 sales per month among the five projects. Nearly 80 units of condominium and single-family products remained to be sold within active neighborhoods in these projects, representing approximately five months of inventory at average absorption rates.

Table 4.3-3

Inventory of Comparable Nonbranded, Whole-Ownership Product

Project Name	Master-Planned Community	Product Type	Total Units	Units Sold	Average Home Size (Sq. Ft.) New	Average Home Size (Sq. Ft.) Resale	Average Home Price ($) New	Average Home Price ($) Resale	Average Value Ratio ($) New	Average Value Ratio ($) Resale	Monthly Absorption (%)	Months Selling
Built Product												
Las Terrazas	Peninsula Papagayo	C	16	0	2,800	—	2,275,000	—	813	—		
El Carrao	Reserva Conchal	C	30	28	2,722	—	761,000	—	280	—		
Bougainvillea	Reserva Conchal	C	62	62	—	1,955	—	781,809	—	400		
Malinche	Reserva Conchal	C	27	27	—	1,829	—	868,333	—	475		
El Carrao	Reserva Conchal	SF	12	10	4,455	—	989,500	—	222	—		
Villas del Mar	Reserva Conchal	SF	6	3	6,376	—	1,550,000	—	243	—		
Average			137	130	4,518	1,892	1,100,167	825,071	244	436	1.9	75
Average, Condominium			119	117	2,722	1,892	761,000	825,071	280	436		
Average, Single Family			18	13	5,415	—	1,269,750	—	234	—		
Lagos de Palma Real	Hacienda Pinilla	C	36	27	3,749	—	885,000	—	236	—		
Jardines Palma Real	Hacienda Pinilla	C	30	30	—	3,299	—	837,000	—	254		
Costa Palma Real	Hacienda Pinilla	C	4	4	—	3,294	—	1,650,000	—	501		
Reserva de Golf	Hacienda Pinilla	SF	140	140	4,563	6,264	1,516,550	1,850,000	332	295		
Golondrinas	Hacienda Pinilla	SF	76	76	4,683	—	1,700,000	—	363	—		
Average			286	277	4,331	4,286	1,367,183	1,445,667	316	337	6.7	54
Average, Condominium			70	61	3,749	3,297	885,000	1,243,500	236	377		
Average, Single Family			216	216	4,623	6,264	1,608,275	1,850,000	348	295		
Montebello	Los Sueños	C	24	19	2,500	—	1,350,000	—	540	—		
Bella Vista	Los Sueños	C	48	48	—	3,100	—	1,633,333	—	527		
Collina	Los Sueños	C	90	90	—	2,000	—	603,200	—	302		
Del Mar	Los Sueños	C	84	84	—	1,725	—	767,333	—	445		
Marbella	Los Sueños	C	36	36	—	3,400	—	2,590,000	—	762		
Terrazas de Marbella	Los Sueños	C	22	22	—	3,550	—	2,837,500	—	799		
Veranda	Los Sueños	C	64	64	—	1,613	—	599,000	—	371		
Eco Golf Estates	Los Sueños	SF	25	25	—	5,550	—	1,750,000	—	315		
Vista Tres Bahias	Los Sueños	SF	29	29	—	5,000	—	2,350,000	—	470		
Bay Residences	Los Sueños	SF	30	26	2,200	2,200	1,175,000	1,287,000	534	585		
Average			452	443	2,350	3,126	1,262,500	1,601,930	537	512	5.7	89
Average, Condominium			368	363	2,500	2,565	1,350,000	1,505,061	540	587		
Average, Single Family			84	80	2,200	4,250	1,175,000	1,795,667	534	423		
The Pointe	Tamarindo Preserve	SF	67	27	3,221	—	2,023,571	—	628	—		
Average			67	27	3,221	—	2,023,571	—	628	—	2.5	12
Average, Nonbranded MPC			958	877	3,727	3,199	1,422,562	1,457,465	382	456	5.4	57
Average, Nonbranded MPC, Condominium			573	541	2,943	2,577	1,317,750	1,316,751	448	511		
Average, Nonbranded MPC, Single Family			385	336	4,249	4,754	1,492,437	1,809,250	351	381		
Lots												
Playa Prieta	Peninsula Papagayo	Lots	13	3	0.5	—	4,600,000	—	8,625,000	—	—	—
Custom Homesites	Peninsula Papagayo	Lots	400	68	1.6	—	1,760,000	—	1,079,755	—	1.9	36
Custom Homesites	Reserva Conchal	Lots	12	12	—	1.0	—	600,250	—	603,266	0.2	75
Los Almendros	Hacienda Pinilla	Lots	76	47	0.6	—	430,333	—	764,346	—	0.9	54
Reserva de Golf	Hacienda Pinilla	Lots	140	140	0.5	0.6	328,000	389,211	607,160	662,331	2.6	54
Golondrinas	Hacienda Pinilla	Lots	12	12	—	0.5	—	633,385	—	1,305,854	0.2	54
Average			653	282	0.8	0.7	1,779,583	540,949	2,179,151	784,866	1.9	54

Note: C = condominium, SF = single-family, MPC = master-planned community.

The CMA clearly has a range of luxury residential products, with varying degrees of absorption success depending on community. There is not much unsold inventory of built products across these communities, although each project has development plans for later phases that entail potentially delivering significant amounts of residential units (see the section on future competition).

Branded Residences

Residential products that carry the licensed name of a hotel brand and feature exclusive services and amenities that are managed by the hotel operator can often help a resort project's marketing and improve its financial feasibility. There are a number of advantages to the developer for including branded residences in development plans. First, consumers are willing to pay a premium for the level of quality, service, and security associated with the hotel brand. Although this premium varies significantly by region, product type, and associated brand name, price premiums between 15 and 40 percent are not uncommon. This premium can greatly improve a project's feasibility, because more money can be returned upfront to the developer and its financial partners. The second major advantage to the developer is the operating experience that the hotel company brings to the management of the development's services, amenities, maintenance, and homeowners association. Finally, the hotel can play a critical role in the sales and marketing of the residential products. The hotel's ability to tap into its international network of existing customers helps generate traffic and drive sales.

Branded residential products can range from single-family homes to townhomes or condominiums. The owners of the property are considering the development of two branded products: large-lot single-family homes and townhome villas. The single-family neighborhood will be situated on a hillside near the resort, so as to capture the best ocean views while remaining close to the hotel's services. The townhome product will be on the beach adjacent to the hotel, to benefit from easy water access as well as all the resort services and amenities.

As of this survey, only one international luxury hotel brand existed in the CMA—in fact, in all of Costa Rica. The Four Seasons is located in Guanacaste Province's Peninsula Papagayo. In addition to its resort hotel and amenities, it has branded whole and fractional ownership residences. Another resort project with branded residences was being marketed in the Puntarenas part of the CMA.

Branded residences at the Four Seasons consisted of 20 single-family homes that averaged 2,500 square feet and nearly $1,000 per square foot. There were also four large branded estate homes that averaged 6,000 square feet and sold for nearly $2,000 per square foot to a destination club company. At the time of the survey, the branded residences had nearly sold out in eight months, for an absorption of about three sales per month. The branded product was clearly priced at a premium over the unbranded residential products in the CMA.

Because of the low number of communities with branded whole-ownership residences in the CMA (and in the country), the survey was broadened to include regional competition from branded residences in Central America, Mexico, the Caribbean, and the Bahamas. This broader area can be considered the project's secondary CMA. This survey offered additional information about successful product types and unit mix as well as price and absorption trends.

Fractional Residences

Development plans include a fractional-ownership product, in which ownership is shared and purchased in fractions generally equivalent to one month of annual use. Given that vacation homeowners typically use their second homes only a few weeks of each year, a variety of shared-ownership products have proliferated in the second-home industry. These products include timeshares (generally shares of one or two weeks) and traditional fractional shares (generally shares of one to three months), with private residence and destination clubs (generally shares of one to two months) representing a more upscale alternative. Details related to ownership, flexibility of use, management, and rental services can vary significantly among these products and between developments.

The developer plans to sell luxury fractional shares associated with a five-star hotel, so communities that offer a similar product in the CMA were sought out to be surveyed. Only one comparable product was identified. The survey area was therefore broadened to include actively marketed luxury fractional shares and upscale timeshares in the secondary CMA. These developments were surveyed through in-depth phone calls by the sales and marketing team. Information similar to what had been collected for the local competitive communities was ascertained through

Table 4.3-4
Inventory of Comparable Fractional Ownership Product

Project Name	Product Type	Total Units	Units Sold	Avg. Home Size (Sq. Ft.)	Avg. Home Price ($)	Avg. Value Ratio ($)	Monthly Absorption (%)	Months Selling
Four Seasons at Peninsula Papagayo	1/12 Fraction	20	4	2,150	196,000	91	1.0	4
Four Seasons at Punta Mita	1/12 Fraction	25	19	3,622	307,325	85	1.1	18
Ritz-Carlton Abaco Club	1/12 Fraction	—	—	1,900	275,000	145	—	—
Ritz-Carlton St. Thomas	1/12 Fraction	104	95	1,727	159,000	92	1.6	59
Average		149	118	2,350	234,331	100		

these surveys, as well as specific information related to number of "keys," ownership structure, and average time period purchased. Table 4.3-4 summarizes the fractional-ownership comparables.

The four fractional products deemed comparable to the subject site were associated with five-star hotel brands and located in waterfront communities in the secondary CMA. Each of these projects sells 1/12 fractions equivalent to one month of use. Home sizes range from 1,700 to 3,600 square feet, with prices from $85 to $145 per square foot. Monthly project absorption rates ranged from approximately one to two sales, with each unit sale representing 12 shares. As in the results of the local assessment, each listing was included in a price-to-size graph for positioning purposes in later steps.

Assessing Future Competition

Although assessing future competition in a developing nation can be challenging, interviews with existing properties, government planning agencies, and local resources such as real estate brokers, in conjunction with an analysis of pertinent news stories and press releases, will generally help uncover the key planned projects. If the status of planned projects can be determined with a relatively high degree of confidence, an analysis can be made of the number of annual units that will be brought to market in the future. When added to the stock of currently marketed units, the total future competition can be evaluated and compared with estimated demand.

The future development situation in Costa Rica, particularly in Guanacaste, has been unpredictable, with the status of planned projects changing from month to month. From interviews and reviews of available sources, it was determined that there was a potential for more than 2,500 residential units and 4,400 hotel "keys" to enter the market during the site's projected sales timeline. These are units that are currently planned or under development in the CMA, including both Guanacaste and Puntarenas. The vast majority of these units are located in luxury-oriented, mixed-use developments and some master-planned resort communities, and many are part of later-stage plans at the existing projects in the CMA. The extent to which each planned project will compete with the site was evaluated and taken into consideration when determining positioning and absorption projections.

Conclusions from the Competitive Analysis

The competitive market area already has a number of resort developments that have proven there is a market for luxury residences. Home sizes at these projects tend to be relatively large, with few units available under 2,500 square feet at condominium and single-family home projects. The large unit sizes typically result in prices above $1 million, with a significant range in values, depending on location, community, and interior specification levels. Approximately 36 percent of all actively marketed products (including built product and vacant lots) in the surveyed competitive communities are attached condominiums or townhomes.

There are few comparables in the CMA—and indeed in Costa Rica—for some of the planned product at the site. Neither the branded whole-ownership nor the

Table 4.3-5
Market Evaluation of the Subject Property and Its Competitive Set (5 = Highest)

Element	Subject Site	Reserva Conchal	Papagayo	Hacienda Pinilla	Los Sueños
Regional Location	4.0	4.0	4.0	4.0	4.0
Submarket/Site Location	4.5	4.0	4.5	4.0	4.0
Access and Visibility	2.0	4.5	4.5	3.0	3.5
	4.5 as development occurs				
Physical Characteristics	5.0	4.0	4.5	3.5	4.0
Surrounding Land Uses	4.5	3.5	4.5	4.0	3.5
Services/Amenities	2.0	4.0	4.5	3.0	4.0
	4.5 as development occurs				
Security	4.5	4.0	4.5	4.0	4.5
Overall Rating	3.8	4.0	4.4	3.6	3.9
	4.6 as development occurs				

fractional-ownership product is prevalent in the region. Although this could signal either a competitive niche or a segment without market demand, the success that the comparable local and analogue projects have had in terms of price premiums and sales pace leads to the conclusion that the site could offer a competitive advantage.

A significant amount of planned residential product is in the pipeline, with much of it in later stages of established communities. It is believed that the specification and price levels of the site's product, especially its branded residences, will be higher than much of this potential competition. Nonetheless, it will be critical to monitor the status of the planned projects, because that can affect the property's absorption potential.

Site Evaluation

Along with visits to the most comparable communities, a physical inspection of the planned development site was undertaken to determine the site's strengths and weaknesses in comparison with the existing and future competitive set. Visiting the planned development also increased understanding of the project's marketing window.

The site and its competitive set were analyzed for their local and regional location, physical characteristics, accessibility, visibility, surrounding land uses, proximity to services, and security. Each community was evaluated and ranked on current conditions, as well as potential future conditions, on a five-point scale, with 5 representing a significant competitive advantage and 1 representing a significant competitive disadvantage. A matrix was created to compare the subject site with the other communities (table 4.3-5).

The site's strengths include its secluded location and private beaches; its proximity to the airport its varied topography, with ample opportunities for water views; and the large amount of land area that will be preserved as open space. Because project plans call for paved roads, access by water and air, and a number of resort amenities and services, the evaluation of the site is very favorable in relation to its competition.

Differentiation Strategy

The analyses revealed a number of competitive strengths for the site. The planned branded residences will serve a niche consumer who is seeking an ultra-luxury resort experience backed by the management expertise, security, and brand-name recognition that accompany an international hotel operator. Only one such project—the Four Seasons Peninsula Papagayo—exists, and it had nearly sold out at the time of the survey. Another project with branded residences planned to open soon in Puntarenas Province and reported strong interest in presales. A number of planned projects in both Guanacaste and Puntarenas have announced intentions of including branded resi-

Table 4.3-6
Amenity Inventory of the Subject Property and Its Competitive Set

Amenity	Subject Site	Reserva Conchal	Peninsula Papagayo	Hacienda Pinilla	Los Sueños
Private Beach	x	x	x	x	x
Resort Hotel	x	x	x	x	x
Golf	x	x	x	x	x
Marina	x		x		x
Beach Club	x	x	x	x	x
Retail Village	x	x			x
Equestrian Center	x	x		x	
Spa/Wellness Center	x	x	x		x
Nature Center	x				
Walking/Riding Trails	x	x		x	
Casino		x			x

dences, but the status of these projects remains uncertain. Clearly, branded residences will help distinguish the site from the many luxury unbranded developments, although a number of similarly oriented waterfront projects that will potentially compete for the same buyer profile appear to be in the pipeline.

An important differentiating factor was uncovered during the competitive analysis and site evaluation stages. Most beachfront properties in Costa Rica are untitled because direct possession and ownership are restricted by government and maritime laws. This means that many developments, including most of the site's direct competitors, cannot offer foreign buyers directly titled land within 200 meters of the beach. The property within the site's project is not affected in this way because local ordinances allow fully titled beachfront property to be sold to foreigners. The security that the fully titled land offers will be emphasized in the sales and marketing process.

Another differentiating factor is the opportunity for ecotourism on a large scale. The project's large size and the planned open-space setaside will allow owners and guests to be surrounded by the natural environment, with pristine beaches on one side and undeveloped rain forests on the other. Homesites will be minimally cleared and graded only in small areas, allowing the native surroundings to be incorporated into the living experience.

Project Validation and Recommended Positioning

The demand and supply analyses and site evaluation made it possible to validate the development concept and position the residential component in a way that maximizes return and minimizes risk. The development concept includes a number of amenities that will attract visitors and ultimately homebuyers: resort and hotel amenities, an 18-hole golf course, a marina and adjacent marina village, a separate retail village, an equestrian center, a wellness center and spa, and multiple beach clubs. In addition, there are plans for nature-oriented amenities such as an interactive nature center, walking and riding trails, and guided nature tours. These amenities, which will appeal to the target buyers, are in line with and in certain cases exceed what the competitive set is or will be offering. Table 4.3-6 shows a comparison of the project's planned amenities with those of the project's competitive set.

To maximize absorption of residential units, a well-thought-out segmentation strategy is essential. The recommended development plan consists of branded and unbranded residences focused around the project's natural and built amenities, to capture demand from buyers with different interests and price expectations.

The majority of units will contain more than 2,500 square feet, with many approaching 5,000 square feet. These unit sizes are in line with the competitive set and will appeal to

Table 4.3-7

Recommended Product Positioning and Projected Absorption for the Subject Property

Product	Product Type	Total Units	Unit Size (Sq. Ft.)	Base Home Price ($)	Base Price/ Sq. Ft. ($)	Absorption		
						Monthly Units	Units/ Year	Years Selling
Whole-Ownership Branded Villas	TH	30	1,500	2,100,000	1,400	1.0	12	2.5
			3,000	3,300,000	1,100			
Weighted Average			2,250	2,700,000	1,200			
Whole-Ownership Branded	SFD	100	2,500	2,500,000	1,000	1.5	18	5.6
			5,000	4,500,000	900			
Weighted Average			3,750	3,500,000	933			
Fractional-Ownership Villas	TH	20	1,962	210,000	107	0.5	6	3.3
			2,500	265,000	106			
Weighted Average			2,231	238,000	107			
Total Branded		**150**						
Beach Village	SFD	50	3,500	3,000,000	857	2.0	24	2.1
			6,000	5,100,000	850			
Weighted Average			4,750	4,050,000	853			
Hilltop Estates	SFD	150	4,000	3,000,000	750	1.5	18	8.3
			6,000	4,700,000	783			
Weighted Average			5,000	3,850,000	770			
Hillside Villas	TH	45	3,000	2,000,000	667	2.0	24	1.9
			4,000	2,900,000	725			
Weighted Average			3,500	2,450,000	700			
Valley Estates	SFD	100	3,500	2,100,000	600	1.5	18	5.6
			5,500	3,800,000	691			
Weighted Average			4,500	2,950,000	656			
Golf Villas	TH	60	2,500	1,300,000	520	1.0	12	5.0
			4,000	2,300,000	575			
Weighted Average			3,250	1,800,000	554			
Equestrian Ranch Lots	SFD	25	3,500	1,500,000	429	0.5	6	4.2
			5,500	2,600,000	473			
Weighted Average			4,500	2,050,000	456			
Village Flats	Flats	55	600	500,000	833	4.0	48	1.1
			1,500	1,000,000	667			
Weighted Average			1,050	750,000	714			
Total Unbranded		**485**						
Total, Subject Property		**635**						

Note: TH = townhouse, SFD = single-family detached.

buyers seeking sufficient room for extended families. Approximately one-third of the project's units will be attached, either as stacked-flat condominiums or as villa townhomes; this is similar to the ratios seen in the surveyed competitive set. These homes will appeal to buyers who want a "lock and leave" product, without the responsibilities and maintenance of a home on a larger lot. The remainder of the units are planned to be sold as built single-family homes, with varying degrees of customization.

The planned unbranded residences are defined by their amenity orientation and location, and include single-family homes, townhomes, and flats located so that they are integrated with the project's beaches, hilltops, hillsides, valley, golf course, equestrian center, and marina village. The hotel-branded residences will be an exclusive cluster of residential products near the beachfront hotel; they will include whole-ownership single-family homes and townhomes, as well as fractional-ownership townhome villas.

The total unit count is defined by density and topographic limitations, as well as by market share and absorption projections. The development team is looking at a ten-year development timeline. With approximately 650 units being built over ten years, the site will account for approximately 3 percent of projected building permits for Guanacaste Province. Looking only at the cities in the PMA, the site will need to convert 0.5 percent of the wealthiest households (those earning more than $500,000 a year) to buyers over its development time frame. Marketing plans should be aimed at visitors to the region as well as the high-income, high-net-worth households in the key demand markets that have direct air access to the region.

The recommended residential plan is highly segmented in terms of product type, unit size, and base price. In order to properly position the residences, a matrix based on unit size and price was created; it included all available units in the competitive set and any relevant analogue communities, such as branded residences in the secondary CMA. The same type of analysis was conducted for the fractional-ownership residences in the secondary CMA. The residences were priced at a premium or a discount to the competitive projects on the basis of the assessment of strengths and weaknesses. The property's extensive planned amenity program, coupled with its strong location, will allow it to compete favorably with projects in the CMA and sell for a premium compared with many of the existing and planned developments. The recommended development plan is displayed in table 4.3-7. It is important to note that this table is a snapshot in time and will need to be reviewed and reanalyzed as development proceeds and throughout the development's lifetime, to ensure an understanding of current market trends.

The residential products are intended to be sold in phases. Although the development plans are highly segmented, it is doubtful that there would be enough demand to sell all the product types at the same time and at the projected absorption rates. A review of the competitive set reveals that branded residences have sold at a rate of approximately three per month per project, while unbranded residences have sold at a rate of approximately five per month per project. Given the site's price positioning and competitive strengths, a phasing schedule was set that would allow for average monthly sales in line with the competitive set.

This analysis of a Costa Rican second-home resort development offers an example of the application of primary and secondary research to the assessment of a complex master-planned community in an international setting. These techniques and methods can be applied to second-home (and primary-home) developments throughout the world. Projects in developing countries will often lack data on demand and supply trends, requiring that research be based largely on primary interviews and evaluations. Projects in more developed countries, where governments and other agencies keep detailed and transparent records, will often entail more in-depth analyses than are presented in this case study. Each analysis must take into account the key drivers of demand, the competitive environment, and an evaluation of the site, to validate and recommend development plans and positioning of residential products.

The rotunda at Westfield San Francisco Centre. ***Tim Griffith***

Chapter 5

Retail

The retail market analyst must understand the real estate—that is, shopping centers, pedestrian-oriented business districts, and freestanding stores—as well as the retailing business and its customers. ULI and the ICSC define a shopping center as "a group of commercial establishments planned, developed, owned, and managed as a unit."[1] Store space, whether in malls, in strip centers, or on Main Street, is most commonly tabulated as gross leasable area (GLA)—the total floor area that a tenant occupies exclusively, including any space used for storage or offices.[2] It does not include any common area, management office space, or other space that is not leased to individual tenants. Shopping center GLA accounts for 69 percent of the inventory of retail space in the United States. However, freestanding stores and business strips that lack central management account for the majority of retail square footage in many city neighborhoods, older suburbs, or small towns.

Retail Sectors

The Census Bureau and the ICSC classify stores in two main groups: GAFO and convenience.

- GAFO is an acronym for stores selling general merchandise (discount and conventional department stores, warehouse clubs, supercenters), apparel and accessories (including shoes), furniture and home furnishings (including electronics), and other goods (specialty shops selling books, toys, luggage, jewelry, sporting goods, and other items).[3]
- Convenience stores include supermarkets and other food stores (such as bakeries or fruit and vegetable markets) and drugstores. Home improvement, hardware, and building supply stores are usually classified as convenience stores. However, the increasingly varied array of merchandise sold at stores such as Lowe's or Home Depot (appliances, floor coverings, kitchen cabinets) make this classification somewhat questionable.
- Restaurants and bars (NAICS code 722) are also considered to be convenience purchases. The Census Bureau identifies two main types of restaurants: full service (where patrons are served by waitstaff and pay after they finish their meals) and limited service (where patrons order and pay before eating).[4]

Other retail sectors also report sales to the Census Bureau: motor vehicle and parts dealers (including new- and used-car showrooms), as well as establishments that sell boats, recreational vehicles, and auto parts; gasoline stations; and nonstore retailers. The last classification includes catalog and mail-order sales, purchases made over the Internet, and dealers in home heating fuel. When looking at retail sales in shopping centers or freestanding stores, the analyst needs to subtract motor vehicle sales, gasoline purchases, and fuel oil purchases.

It is important to consider the impact of Internet and catalog shopping when looking at the demand for new store space. Entertainment activities can be important in drawing customers to retail venues. Movie theaters are most closely associated with malls and other commercial business districts, but many shopping center operators have experimented (with mixed success) by adding such recreation venues as health clubs, skating rinks, children's museums, and music or theatrical performance spaces.

Why Do a Retail Market Study?

Whether a developer is considering building a new shopping center, retenanting a declining business district, or locating new stores for expanding chains, a market study can provide valuable input for decision makers:

- Shopping center developers use market studies to shape the nature of their proposed projects, attract the interest of prospective tenants, win needed approvals from the community, and secure financing.
- Local governments use retail market studies when preparing redevelopment plans for business districts or older shopping centers and in determining the feasibility of tax increment financing programs.
- Market studies are prepared as part of the due diligence process for investors in New Market Tax Credits for commercial revitalization projects.
- Economic development agencies use market study data to attract prospective retailers to their communities.
- Real estate departments at chain retailers and franchisers use market data to create profiles of top store performers, thereby providing guidance for future location decisions. They also study demand demographics and competitive store inventory when deciding whether to enter a market where they have not yet been represented.
- Prospective anchor tenants will often conduct their own market studies because their decision-making criteria are different from a developer's. A developer's profit is based on achievable rents, occupancy, and operating expenses for the entire center. A store is most concerned with whether it can draw its target customer base and generate the sales levels that will make the location a good performer.

A shopping center cannot generate purchasing power; it can only attract customers away from existing stores within or beyond the trade area, fulfill a need that has not been met within the market area, or capture the increase in potential expenditures that results from population, household, employment, or income growth. New retail space can cause a redistribution of business locations and consumer patronage, but it cannot create new consumers. A new, renovated, or expanded center can, however, alter consumer shopping habits. Each new center must be justified by gauging the purchasing power available to it in light of the nature of its competitors. In any market study, assumptions should be conservatively made and clearly described.

Trends in Shopping and Spending

When the general U.S. economy is healthy and household incomes are growing, retail sales will increase each year. Even in years with weak economic growth, an expanding population can create new demand for goods and services. Each month, the Census Bureau collects sales data from a sample of retailers and issues reports that help economic observers view trends by type of store.[5] Table 5-1 shows U.S. retail sales for 2000 and 2007, indicating how sales have changed over time on both a total and a per capita basis; the per capita statistics adjust for growth in consumers over the seven-year period.

The table indicates that total sales (exclusive of motor vehicles and gasoline) grew 37.8 percent over the seven-year period while per capita sales grew only 29 percent. This growth is impressive, given that median household income did not grow in real (inflation-adjusted) dollars. Certain store types outperformed the average, whereas others lagged:

- Restaurants did well, with a corresponding lag in sales growth at food stores, as more households ate away from home.
- Computer stores showed poor sales growth, as a higher percentage of hardware and software purchases were made online, at office supply stores, and at discount department stores.

Table 5-1

Estimated Annual U.S. Retail and Food Services by Type of Business

NAICS Code		Total Sales ($ Millions) 2000	2007	Change, 2000–2007 (%)	Per Capita Sales ($) 2000	2007	Change, 2000–2007 (%)
	Total retail sales, excluding motor vehicle and parts dealers and gasoline stations	1,941,213	2,675,947	37.8	6,879	8,872	29.0
	GAFO[a]	863,903	1,162,719	34.6	3,061	3,855	25.9
	GAFO share of sales (%)	44.5	43.5	–2.4			
442,443	Furniture, home furnishings, electronics, and appliance stores	173,691	230,016	32.4	616	763	23.9
4421	Furniture stores	50,689	62,727	23.7	180	208	15.8
4422	Home furnishings stores	40,639	55,930	37.6	144	185	28.8
44311	Appliances, TV, and other electronics	58,260	85,414	46.6	206	283	37.2
44312	Computer and software stores	20,713	22,353	7.9	73	74	1.0
448	Clothing and clothing accessories stores	167,968	224,651	33.7	595	745	25.1
4481	Clothing stores	118,210	165,115	39.7	419	547	30.7
4482	Shoe stores	22,888	26,506	15.8	81	88	8.3
44831	Jewelry stores	24,988	30,743	23.0	89	102	15.1
451	Sporting goods, hobby, book, and music stores	76,112	87,324	14.7	270	290	7.3
452	General merchandise stores	404,344	576,426	42.6	1,433	1,911	33.4
452111	Department stores[b]	100,284	83,901	–16.3	355	278	–21.7
452112	Discount department stores[b]	139,637	131,822	–5.6	495	437	–11.7
4529	Other general merchandise stores[c]	171,869	366,534	113.3	609	1,215	99.5
453	Miscellaneous store retailers[d]	108,052	118,848	10.0	383	394	2.9
444	Building materials, garden equipment and supplies dealers[e]	229,320	337,173	47.0	813	1,118	37.6
445	Food and beverage stores	445,666	560,649	25.8	1,579	1,859	17.7
446	Health and personal care stores[f]	155,372	237,437	52.8	551	787	43.0
4541	Electronic and mail-order retail sales	113,877	210,431	84.8	404	698	72.9
722	Total food services and drinking places	305,461	442,257	44.8	1,082	1,466	35.5
7221	Full-service restaurants	134,204	193,059	43.9	476	640	34.6
7222	Limited-service eating places	127,879	186,900	46.2	453	620	36.7
7224	Drinking places	15,415	23,362	51.6	55	77	41.8

Sources: U.S. Census Bureau, Monthly Retail Trade Survey (2007) and Annual Retail Trade Survey (2000).

a. Includes NAICS codes 442, 443, 448, 451, 452, and 4532 (office supplies, stationery, gifts).
b. Includes leased departments.
c. Includes warehouse clubs.
d. Includes florists, office supply stores, pet shops, cigar shops, stationery, gift stores, and used merchandise.
e. Includes home centers, paint and wallpaper stores, and hardware stores.
f. Includes drugstores, cosmetic stores, and optical goods.

- Building materials, appliance, and electronic stores did well as families remodeled their homes and purchased wide-screen televisions.
- Full-line department store sales showed absolute declines as many store chains merged and locations were consolidated. Although the largest discount department store chains (Wal-Mart and Target) continued to open new stores and increase sales at existing locations, many regional discount stores went out of business. These chains have also put pressure on other store types: toy stores face strong competition from Wal-Mart's deep assortment and discount pricing, and the discounter's super centers affect sales at traditional supermarket chains.
- Note the 85 percent growth in sales by nonstore retailers, consisting primarily of online and catalog sales. Sales at stores that sell apparel, books,

and other merchandise categories are increasingly vulnerable to growth in Internet purchasing. Store chains try to head off Internet-based retailers by making it easy for customers to order merchandise from their Web sites and handle returns at nearby stores without incurring additional shipping costs.

For retail chains, a key measure of store performance is annual growth in "same-store" sales—at locations open at least a year. Publicly held store chains report this information on a quarterly basis, and it is widely cited by stock analysts and retail market observers as an indicator of how consumers view stores. However, there is no single source of information on trends in same-store sales for all chains, and even less information is available for privately owned stores.

Types of Shopping Centers

ULI and the ICSC describe six key types of shopping centers. Most, but not all, shopping centers have a mix of *anchor tenants*[6] and *in-line* or *mall shop* space (small tenants, usually a mix of national, regional, and local stores and service businesses). A shopping center's classification is based on its tenant mix and the size of the trade area it serves, not solely on the square footage of the structure. Although most store space in the United States is now found in shopping centers, standalone retail (in individual buildings or streetfront business districts) provides additional competition. Well-capitalized retail chains are often able to build their own stores—and attract customers—without being in a shopping center.[7]

Shopping center classifications include the following:

- *Neighborhood centers* sell convenience goods (food, drugs, toiletries, cards, flowers) and provide personal services (dry cleaning, banking, package shipping, hair and nail care, shoe repair, video rental) that meet the day-to-day living needs of the immediate area. Take-out food and small sit-down restaurants are also common in neighborhood centers. Neighborhood centers tend to be less than 100,000 square feet in size. Usually an-chored by a supermarket, larger neighborhood centers serve a two- to three-mile radius and need ten to 15 acres of land, including parking. A convenience center, with less than 30,000 square feet, serves the same purposes but does not have a full-size grocery store. Instead, it will be anchored by a minimarket (under 3,000 square feet) with a limited assortment of staple items, snacks, beverages, prepared foods, and deli items. Some larger convenience centers now have their own gasoline service stations; gas stations may also sell soft drinks, snacks, and a limited selection of groceries.
- *Community or super community centers* also provide for daily necessities but add more apparel and specialty store space. They do not include traditional full-line department stores, and they serve a smaller trade area than an enclosed regional or super regional mall. A typical community center contains many of the convenience tenants found in a neighborhood center but offers a wider range of hardware, home furnishings, and other specialty stores. Many community centers are anchored by a discount department store in addition to a supermarket or drugstore. Home improvement, hardware, lawn and garden, and gift stores, as well as banks, professional offices, and larger eating establishments, are also featured in community centers. Some of the stores, services, and eateries are located on pad sites within the parking lot. Community centers usually range from 100,000 to more than 300,000 square feet and can occupy 30 or more acres. Trade areas for these centers range from three to five miles.
- *Power centers*, developed in large numbers between the mid-1980s and early 2000s, are also known as super community centers. They range in size from 250,000 to (in rare instances) more than 1 million square feet. Power centers contain at least four big-box or "category killer" stores, each having at least 20,000 square feet of space. Such stores offer in-depth merchandise selection at attractive prices. Less than 20 percent of power center space consists of small stores; some have no in-line space at all. These open-air centers tend to be in locations near large malls; they draw shoppers from a radius of five miles or more.
- *Outlet centers* are collections of discount stores directly operated by brand manufacturers or store chains. They sell out-of-season items and production overruns. Many outlet centers also

Food court at Los Molinos Centro, a rehabilitation of old factory buildings into a three-level shopping center in Medellín, Colombia. ***Christopher Dew***

include discount stores or closeout operators. Most are single-story, open-air strips, but a few occupy renovated older buildings. They usually have less than 400,000 square feet and no traditional anchor tenants. An outlet mall may have a food court or a collection of restaurants in its tenant roster, and a small number of them have an entertainment component. Originally, factory outlets were limited to tourist destinations and busy highway locations far from regional malls. (Full-line department stores prohibited their manufacturers from selling directly to consumers in the same trade area.) Today, outlet centers can also be found at the fringe of large metropolitan areas. Some apparel manufacturers produce goods especially for their outlet stores.

- *Regional centers* focus on general merchandise, apparel, furniture, and home furnishings. They are usually enclosed, with two or three department stores. They may have movie theaters and a food court or restaurants. Sizes range from 250,000 to more than 900,000 square feet. Anchor stores are usually at least 50,000 square feet each,

except in rural centers where they may be smaller. Regional malls typically serve a trade area of five to eight miles, depending on population density, but trade areas in smaller cities can cover a much larger area. This segment of the shopping center market is undergoing a transformation, as smaller two- or three-anchor malls are redeveloped as open-air centers or hybrids that combine traditional enclosed-mall tenants, big-box stores, and entertainment.

- *Super regional malls* have at least 800,000 square feet of GLA, three or more department stores, and a range of entertainment and food offerings. A typical size is 1 million square feet, but the largest malls are closer to 2 million. Each department store has at least 75,000 square feet of space. Many super regionals need more than 100 acres of land to accommodate parking demand; anchor tenants may want even more parking than is required by local authorities. In densely populated areas, trade areas for super regional malls can be as small as five miles, but in typical suburban locations, they can be eight to ten miles or more. As with their smaller regional counterparts, some super regional malls now include a variety of retail formats, as vacant department store spaces are taken over by big-box stores and as nonstore uses are added, either adjacent to the mall or on pad sites. The sea of surface parking is being used more intensively, and the addition of decked parking at the most successful centers frees land for movie theaters, pad restaurants, office space, and even housing.
- *Value-oriented "hybrid" malls*, combining large discount and off-price anchors with smaller factory outlet stores, were popular formats in the 1990s and early 2000s. Pioneered by the Mills Corporation, these centers can be as large as 2 million square feet, but most are much smaller. The better hybrid malls (generally enclosed) can draw shoppers from an hour away, but the primary trade area is typically within a half-hour's drive.
- *Lifestyle centers* are tenanted with the upscale apparel, housewares, and gift shops often found in regional malls, as well as restaurants, specialty food stores, and entertainment (movie theaters, music venues, and community gathering spaces). They generally do not have a traditional department store anchor. Instead, their anchors are often bookstores, movie theaters, and big restaurants. They appeal to time-strapped shoppers who do not want to walk through a large mall to reach one or two stores. Many of the centers are designed to mimic a pedestrian-oriented neighborhood business district, which is also appealing. According to the ICSC, lifestyle centers range in size from 150,000 to 500,000 square feet and need at least ten acres of land. Their primary trade areas can stretch for eight to 12 miles; secondary trade area patronage can be significant if there are no similarly tenanted centers within 20 miles or more.
- *Town centers* are open-air, walkable neighborhood business districts, suburban downtowns, and small-town retail cores that contain many of the store types found in lifestyle centers. They may also include pharmacies, hardware stores, dry cleaners, florists, banks, post offices, and other civic space. In cities that have extensive subway systems or suburban commuter-rail lines, town centers can be found near transit stations. Professional offices (medical practices, attorneys, insurance agents, stockbrokers, real estate agents) may occupy a significant share of the ground-floor space.[8] In some cases, upper-level office or residential uses complement the retail space.

In the past, clear tenant distinctions existed among shopping center types. Today, the definitions are blurring. For example, urban street retail—once the province of independent entrepreneurs or small regional chains—now draws national retailers who used to locate only inside regional malls. Enclosed malls have also evolved. As stores go out of business or vacate spaces that no longer meet their location requirements, chains that might not have taken space in a regional mall ten years ago are giving them a second look. For example, large department-store spaces have been divided up to accommodate expanding big-box chains that sell books, family apparel, sporting goods, home furnishings, and electronics. In many cases, rents are lower than they would be in a brand-new power center. Another example is the addition of open-air lifestyle tenants at the perimeter of super regional malls, thereby allowing new apparel, restaurant, and entertainment attractions not found inside.

Trends in Shopping Center Supply and New Construction

Shopping center space continues to grow, as measured by number of centers and total GLA. However, the majority of centers and the bulk of square footage are found in smaller properties. Furthermore, most new shopping centers tend not to be enclosed malls.

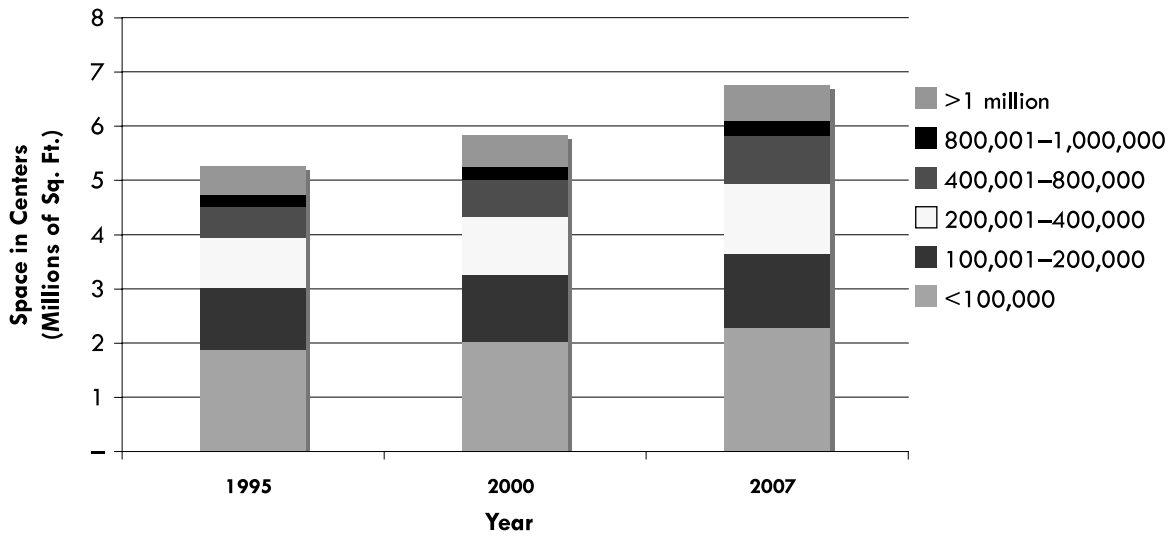
Although neighborhood- and community-scale centers continue to be built in areas that are experiencing household growth, developers are now building very few enclosed super regional malls, for five reasons:

- They require many years of advance planning, including a lengthy (and often acrimonious) public approval process.
- They are rarely finished within two years of ground breaking. General economic conditions, as well as the financial stability of key tenants, can change dramatically during that period.
- Owing to mergers and consolidation, there are simply not enough department stores chains available to fill four or more anchor spaces.
- Store chains are increasingly receptive to open-air locations, where occupancy costs tend to be lower.
- Most metropolitan areas do not need more regional mall space.

Figure 5-1 shows that only 13.7 percent of all shopping center space in 2007 was found in centers with 800,000 square feet or more. At the other end of the spectrum, centers with less than 200,000 square feet accounted for 54 percent of the space, but their share of total space is declining.[9] The fastest growth between 1995 and 2007 was in centers with 400,000 to 800,000 square feet of space. An increasing share of new retail construction is occurring as part of mixed-use developments.

Rather than focus on new construction, owners and managers of enclosed regional and super regional malls in the United States are renovating their properties to keep them fresh and competitive, and looking for successful store chains and

Figure 5-1
Total U.S. Shopping Center GLA by Size of Center



Source: ICSC, "Trends in the Shopping Center Industry," *Retail Real Estate Business Conditions*, vol. 5, no. 15, May 16, 2008.

new concepts to fill vacant spaces. Increasingly, they subdivide and retenant former department stores with bookstores, home furnishers, movie theaters, and other store or entertainment uses—often with entrances that are directly accessible from parking lots.

These trends suggest that market analysts who specialize in enclosed malls will be monitoring the performance of existing properties and proposing how they might be expanded or retenanted. Such studies will be conducted on behalf of property owners and investors, rather than developers. Lenders will be requesting market studies for malls that are experiencing financial problems. New construction will be focused primarily on neighborhood, community, and lifestyle centers, with increasing attention given to retail and entertainment tenants as part of mixed-use projects.

Store Mix in Shopping Centers

In a regional or super regional mall, the full-line department stores are referred to as the anchors. Anchors might also be entertainment centers or large specialty stores. As indicated previously, most regional or super regional malls have three or more anchor tenants. The anchor chain stores typically design and build their own buildings, executing a ground lease with the mall owner. Some anchor stores own their land and a portion of the parking lot. The arrangements can be different for each anchor in a given center.[11] As a result, it is important to understand whether mall sales data that are reported include the department stores. Some mall managers report sales for an entire center; others report sales only for space owned by the mall, covering only in-line or mall shops.

A combination of operating economics and shifting consumer preferences dictates a shopping center's desired tenant mix. In newer super regional malls, anchor tenants account for 50 to 70 percent of total GLA. Although in-line mall shops pay higher rents per square foot than anchor tenants do, leasing agents find it increasingly difficult to find successful, creditworthy tenants for smaller store spaces. It is increasingly common to find discount department stores, big-box category killers, or even nonretail uses taking over vacant anchor space in enclosed malls, or to see these spaces divided up among multiple stores. As chains such as Circuit City, Linens 'n Things, and Filene's Basement go bankrupt or downsize and consolidate store locations, many big-box shopping centers will find themselves with large vacancies as well. Managers will need to make use of creative strategies to keep these centers viable. Table 5-2 lists the top ten tenant types (other than department stores) found in different types of shopping centers.

Stores that sell clothing for teens and preteens dominate the mix of apparel stores in many en-

Shopping Centers Go Global

Although few new super regional malls are being built in the United States, large enclosed malls are changing the way in which consumers buy goods in countries across the globe. A growing middle class (with greater disposable income) is demanding access to name brands, more variety, and greater depth of merchandise than found in traditional "High Streets" or neighborhood shops. Increased use of private automobiles in other countries is also stimulating the growth of suburban-style centers.

Offshore malls are often part of mixed-use developments and include national and international retailers along with local entrepreneurs. U.S. chains have generated some, but not all, of the demand for modern space. For example, Wal-Mart has moved into Central and South America, China, and Japan. Costco and Office Depot are in South Korea. Toys "R" Us can be found in the Middle East, Africa, Southeast Asia, Australia, and China. European hypermarkets and grocery chains (Auchan, Metro, Tesco, Aldi) and fashion apparel chains (at all price points) are seeking new outlets worldwide.

Retail development has been especially prolific in Russia, Poland, and other Eastern European nations, where modern shopping center space was virtually nonexistent before the fall of communism. The *New York Times* reports that 38 malls were expected to open in Moscow and the surrounding region between 2008 and 2010. Swedish furniture retailer IKEA now has a store in Siberia, and its development affiliate opened a huge mall (3.6 million square feet) outside Moscow in 2004.[10] Development in China and the Middle East is widespread, but American-style centers have been slower to evolve in India, despite its enormous consumer market. Regulations that protect small, local entrepreneurs make it difficult for global store chains to operate there, but this is likely to change over time as demand pressures build.

Table 5-2

Shopping Center Space by Tenant Classification and Center Type, Ranked by Share of Center-Owned GLA

Rank	Super Regional	Regional	Community and Super Community	Neighborhood
1	Women's wear	Women's wear	Food	Food
2	Mixed apparel	General merchandise[a]	General merchandise[a]	Food service
3	Food service	Food service	Food service	Personal services
4	Entertainment/community	Entertainment/community	Other retail	Drugs
5	Shoes	Mixed apparel	Home furnishings	General merchandise[a]
6	Hobby/special interest	Hobby/special interest	Hobby/special interest	Entertainment/community
7	Other retail	Food	Personal services	Offices
8	Home furnishings	Other retail	Entertainment/community	Other retail
9	Gifts/specialty	Gifts/specialty	Building materials/hardware	Gift/specialty
10	Children's wear	Home furnishings	Gifts/specialty	Financial

Source: ULI and ICSC, *Dollars & Cents of Shopping Centers: The Score, 2008.*
a. Excludes department stores.

closed malls. Increasingly, older women shop for clothing at department stores or at specialty shops in pedestrian-oriented areas or open-air centers. Among non-GAFO tenant types, food service and entertainment—food courts, restaurants, coffee bars, and multiscreen movie theaters—have become more important in enclosed malls. Drugstore chains have changed their location preferences altogether; they have moved out of enclosed malls and in-line spaces in community shopping centers. Even in neighborhood centers, where pharmacies are a typical tenant, chains such as CVS and Walgreens prefer large stores (13,000 to 15,000 square feet) located on freestanding pad sites that allow drive-up prescription dropoff and pickup windows.

The Importance of Key Tenants

Anchor tenants determine the nature of a shopping center and its competitive strengths. Without firm commitments from popular chain stores that have a proven track record of success, a developer may not be able to find debt financing or attract equity investors. When contemplating construction of a new center, developers will try to attract the dominant retailer in a particular category—for example, the top-volume supermarket chain—if it is not already represented in the trade area. If the best performers already have stores nearby, leaving only poorer producers available for the proposed site, the proposed center's chances of success will be evaluated differently. National and regional commercial brokerages may have exclusive representation agreements with key potential anchors. Therefore, it is important for developers to establish relationships with these firms as well as the real estate decision makers at the store chains.

In a retail market study, the analyst may be asked to come up with a specific list of tenant prospects that make sense for the project based on their store requirements (store size, street frontage, population density, access, median household income). The analyst must answer the following questions:

- What anchor tenants are not already represented in the market area?
- Which ones are looking to expand in the area?
- Which ones would be appropriate for the proposed center (given the size of the center, its available spaces, and the characteristics of trade area households)?

A good location for one type of retailer may not be a good location for another. For example:

- A power center located on a busy highway is appropriate for a destination-type tenant such as a home improvement warehouse. The home improvement store that locates in a super community center or a big-box power center will be interested in the center's visibility, ingress and egress, the ease of vehicular movement, and

DC USA is a $145 million retail complex that brought several national chains to a dense urban neighborhood in Washington, D.C., and jump-started a neighborhood revitalization. ***Jeffrey Totaro***

the availability of space for loading bulky or heavy items.

- An upscale department store such as Neiman Marcus or Saks Fifth Avenue wants to be located near other high-fashion shops that cater to an affluent clientele. They will be attracted to suburban malls in high-income suburbs or to urban business districts that draw international visitors. Upscale retailers are very concerned about a mall's lighting, signage, architecture, layout, and finishes. Valet parking is an attractive amenity.
- A supermarket needs ample parking; because it draws large numbers of frequent shoppers, the ability to get in and out of the parking lot quickly and easily is very important. So is security, because many shoppers visit after dark.
- Many store chains have preferred co-tenants; it will be easier to persuade them to sign a lease if other stores that cater to the same demographic profile have already committed to a proposed center or have been successful at an existing center.

Big-box tenants, which serve as anchors in power centers and super community centers, have been very successful in driving out lesser competitors altogether—hence the somewhat unflattering name "category killer." It was once common for big-box chains to saturate a market, eliminating local or regional chains that were unable to compete on price or merchandise assortments. As weaker chains go out of business, large vacant spaces—often difficult to retenant or subdivide into smaller shop space—are left behind, and management has a more difficult time finding new stores that are willing to take the risk on any of the available spaces. Having won the competition, the big-box chains would also close their own undersized stores, leaving problems at additional centers. Ultimately, the number and size of new power centers leveled off, especially in markets where household demand was not growing. Where new power centers are still being built, competition to land the strongest anchors is still keen.

The experienced retail analyst will be familiar with the expansion plans of national and regional chains and understands what they look for in trade area demographics, which other tenants they like to be near, and what their space requirements are. Several trade publications and directories described at the end of this chapter (under "Data Sources") provide useful information. Retailers' Web sites often provide information on their store location standards, as illustrated in table 5-3.

Preparing a Retail Market Study

With the emergence of new shopping formats and changes in shopping habits, the retail market study is not as simple as it once was. However, the key issues that must be addressed remain unchanged:

- A developer who is contemplating construction of a new center must be sure the market can absorb the increase in retail space that is being proposed. The new center must be able to achieve rents that will be sufficient to cover operating expenses and debt service, and still provide an acceptable return on investment.

Table 5–3

Site Selection Criteria for Hallmark Gold Crown Stores

	Regional and Super Regional Malls	Lifestyle Centers	Power Centers	Community Centers	Neighborhood Centers
Center size (sq. ft.)	Enclosed, with department store anchors	Minimum 350,000, with department store or big-box anchors and national specialty tenants	250,000–500,000, prefer supermarket anchor	150,000–300,000, with supermarket anchor and two or three other anchors	85,000–150,000, with supermarket or super drug anchor
Store size (sq. ft.)	2,700–3,500	3,200–3,800	3,200–3,800	3,200–3,800	3,200–3,800
Preferred Location	Mid-mall or better, fashion anchor wing	Not specified	Not specified	Not specified	Not specified
Co-tenants	Major and specialty tenants	Women's ready-to-wear, national anchors, first- or second-tier (market share) grocery	Women's ready-to-wear, national anchors, first- or second-tier (market share) grocery	Supermarket	Supermarket, drugstore
Frontage (ft.)	30 or more				
Maximum depth (ft.)	100				
Shape	Rectangular to square, no L backs or pie-shaped rooms.				
Ingress/Egress	Not specified	Signalized intersection with left and right turns. Able to park directly in front.			
Lease term	3–10 years, depending on the center	3 years preferred; no more than 5 years	3 years preferred; no more than 5 years	3 years preferred; no more than 5 years	3 years preferred; no more than 5 years
Use restrictions	Protection against other tenants selling greeting cards, gift wrap, party supplies, Christmas ornaments				
Total households	Not specified	Not specified	36,000 households within 5 miles	14,000 households within 3 miles	14,000 households within 3 miles
Median household income ($)	50,000+				

Source: www.newbiz.hallmark.com/pdf/ss.pdf.

- The owner of an existing center that is not showing year-to-year sales growth needs to rethink the tenanting strategy (perhaps adding a new anchor or bringing in entertainment uses), update the merchandise mix, or enhance the appearance of the center. Changes may be necessary in the mall's advertising strategy and its promotional events. The changes needed to improve the center's competitive position could range from small-scale cosmetic improvements to a total or partial "de-malling."
- Owners trying to cope with vacant space need to identify gaps in the mix of trade area stores or consider compatible nonretail uses.

Defining the Trade Area

For retail studies, analysts typically refer to "trade areas" rather than "market areas." For a large center, the analyst is likely to identify a primary trade area (from which more than half the patronage and sales will be drawn), and a secondary trade area that might account for another 20 to 30 percent. However, these shares can vary. All retail concentrations will draw at least some patronage from people who live outside the area.

The trade area provides the vast majority of the steady customers necessary to support a retail center or district. There is, however, no single rule of thumb for defining the size or shape of the trade

area served by different types of centers. In general, retail trade areas are limited by road, transit, and (in some cases) pedestrian access. Distance, road networks, and travel time define the boundaries of the trade area. But the ease of travel is not the sole determinant of where consumers will shop. They may drive a considerable distance to patronize a unique mix of stores, reach a retail node with many shopping choices, find affordable prices or luxury brands, or simply enjoy an attractive physical environment. A center's visibility and perceived safety can also be factors in determining how a consumer chooses shopping destinations. Competition from similarly tenanted centers with the same mix of stores is certainly a factor as well.

At the same time, the location of competitive retail agglomerations influences the size of the trade area. Retail chains do not want to locate a new store too close to an existing one, lest they find that the new store cannibalizes sales at the old one. Too many similar stores in proximity merely divide up a relatively fixed pool of sales dollars. Yet recommended distances between shopping centers cannot be precisely established, either for centers that are the same type or for different types of centers. Distance is only one factor in determining a trade area; population density, customer convenience, accessibility, and diversity of merchandise also are considered.

As a result, multiple convenience and neighborhood centers can operate successfully within the trade area of a regional center or even be located next to or across the road from it. Likewise, power centers and other types of community centers often are developed across from or next to super regional malls to tap the area's established identity as a shopping destination. Such coexistence is possible because the two types of centers offer distinct ranges of merchandise. In some cases a group of retail centers complement each other and create synergies that add to their attraction.

When considering a new store or shopping center, retail analysts often start with a ring analysis, looking at population density, household counts, and income characteristics at a distance from a site being considered. (Many retail stores indicate that they look for sites where the population count is, say, 50,000 people within three miles and where the median household income is $50,000.) If the location looks promising, a more sophisticated analysis would then be undertaken.

One indicator of whether or not a trade area has a sufficient—or an excess—amount of retail space is shopping center square footage per capita. To use this indicator effectively, the analyst must have an accurate estimate of retail space in the metropolitan area as well as in the primary trade area, as well as a reliable population count.

For larger shopping centers, the market analyst will often define primary, secondary, and even tertiary trade areas. The primary trade area will include households that live closest to the site or have the most convenient access. It is the geographical area from which the center will derive its largest share of repeat sales; 60 to 80 percent of sales may come from shoppers who live in the primary market area. This area typically extends as far as two to three miles for a neighborhood center, three to five miles for a traditional community center, five to eight miles for a power center, and eight to ten miles for a super regional mall or lifestyle center. However, a shopping center's trade area may extend farther in one direction than in another. Natural features (lakes, rivers, hills, parks and other open space, or undevelopable land) and built barriers (railroads, freeways, and large institutional uses) can act as boundaries. The shape of the trade area is not likely to be uniform in every direction.

Secondary trade areas account for 20 to 30 percent of sales; their residents will be drawn to the subject property because it offers a mix of stores, price points, or ambience not available closer to home. The tertiary market includes persons who live outside the primary and secondary areas, including tourists and business visitors. Rather than precisely define a tertiary trade area, some studies simply assume that a proportion of center sales comes from outsiders.

The size of the primary trade area will also depend on population and household density and the extent to which the center offers a unique shopping experience:

- An entertainment center or a megamall in a small metropolitan area could draw from the entire area, with secondary patronage coming from the rural hinterland.
- In larger metropolitan areas, it will be rare for a suburban primary trade area to extend beyond a ten- to 15-minute drive for a neighborhood or community center, or a 30-minute drive for a super regional center.

Neighborhood-focused retail is a component of Downtown Silver Spring, a large mixed-use development located on the Metro line north of Washington, D.C. ***Hugh Broadus***

- In densely developed cities, primary trade area distances will be shorter, but travel times may be similar because of local road congestion or reliance on mass transit to reach shopping destinations.
- Trade areas for specialty centers or downtown locations can differ from those for a traditional neighborhood, community, or regional center. A well-located outlet mall—visible from a heavily traveled tourist route—may derive more sales from occasional visitors than from nearby residents. These centers create patronage by accommodating tour buses, church groups, and other day-trippers.
- In the past, sales at downtown retailers or shopping centers depended on lunchtime or after-work patronage by workers and business visitors. As new downtown housing is built, stores adjust their merchandise mix and their hours of operation to accommodate the newly increasing neighborhood population. More and more often, downtown centers also benefit from proximity to visitor draws such as museums, sports facilities, concert halls, theaters, and historic sites.

As was discussed in chapter 2, trade areas can be defined using census geography (a combination of municipalities or tracts) or ZIP codes. Ideally, the market analyst will use customized geographic information system (GIS) coordinates that reflect a site's proximity to major roads and highway interchanges (or transit stops), and the resulting travel times. Using GIS imagery and readily available software programs, a map of the trade area can be plotted easily from the geographic coordinates. The location of competitive centers of similar size and tenant mix can be added to further refine the shape of the trade area. Digitized data that are available through private sources can be overlaid to show the location of households with a given age, income, and lifestyle profile for areas within specified drive times or other geographies. The availability of

GIS technology and proprietary demographic databases allows an analyst to easily test different trade area configurations to determine the optimum type and size of shopping center to be developed. Sophisticated retailers have been using GIS as a tool for site selection strategies for more than 20 years.

Trade Area Modeling

Several methodologies have historically been used to define trade areas for new shopping centers or store locations. Choosing an analytical approach depends on the needs of the user—developer, lender, investor, retail store, or public sector agency—and the resources available to complete the market study. The availability of sophisticated GISs has made it possible for individual store chains to develop models to predict the likely success of new locations.

Gravity Models

Gravity models combine demographic data on market size (households or people) with information on store sizes and the geographic distance between store locations or similar shopping centers. Reilly's Law of Retail Gravitation, formulated in 1929 by William J. Reilly at the University of Texas, states generally that when two cities (or retail centers) compete for trade, the breaking point for the attraction of such trade will be more or less in direct proportion to the population of the two cities and in inverse proportion to the square of the distance from each city. (The distance variable can be measured as mileage or as travel time.) In effect, this theory states that people will travel to the largest shopping center that they can reach most easily, assuming the centers offer the same types of goods and services—except in the case of neighborhood centers, where customers are most interested in convenience, not center size.

The gravity model has major weaknesses, however, because where people shop is determined by far more complex factors than the location and size of a center—or the location of a store's competitors. Distance-based models do not consider the presence of geographic barriers. Store quality, image, ambience, prices, and customer service are some of the many factors that draw customers. Increasingly, the synergistic effects of the center's multiple stores, services, and entertainment attractions are what draw shoppers, because most people do not make a separate trip for each need. Personal tastes are also a major factor. Gravity models do not lend themselves to the analysis of synergy among stores or among centers that are located close to one another. For shopping centers, a better methodology is one that bases projections on experience at comparable retail centers, provided that the management of the center is willing to share historical sales performance data. A large real estate investment trust would have a sufficient number of properties in its portfolio to conduct this type of analysis. Other developers and investors may be unable to find this information. However, many retailers make use of gravity models when deciding on new store locations in their established markets.

Drive-Time Models

Drive-time models use digitized data on road types, speed limits, and traffic capacity to show areas that can be reached within a five-, ten-, or 15-minute drive of a proposed shopping center. However, accurate drive-time data may not be available for every potential trade area. Customer location data enhance the usefulness of drive-time models by plotting the place of residence of a store chain's existing customers. This approach can also be used to plot the location of respondents of intercept surveys who say they are frequent visitors to a mall. Store chains can see how many of their loyal shoppers live within a certain distance of a planned new store location. Such models also help them see how a new store might cannibalize sales at existing locations.

Trade Area Demand Demographics

Analyzing the demand for new retail space involves many of the same techniques—and data sources—that are used in housing market analysis but with the added component of spending: estimating household expenditure patterns; adding spending by trade area workers, tourists, or other visitors; and then determining the share of each type of spending that might be captured in a new or retenanted retail space.

Key steps in the demand analysis are summarized here. The analyst should also review the general discussion of demand and the specific demographic data sources cited in chapter 3. Demand analysis includes the following elements:

- A review of metropolitan area economic conditions, including overall trends in employment

Example of Claritas Lifestyle Descriptions

Urban Uptown is an ethnically diverse cluster. Its members tend to frequent the arts, shop at exclusive retailers, drive luxury import vehicles, travel abroad, and spend heavily on computer and wireless technology. There are six lifestyle clusters within the Urban Uptown group. Each has different age characteristics, housing preferences, and economic circumstances. Overall, however, all share a strong preference for urban living. For example, *Young Digerati* are well educated and ethnically diverse. Claritas describes Young Digerati as technologically savvy singles and couples living in fashionable neighborhoods filled with trendy apartments and condominiums, fitness clubs, clothing boutiques, casual restaurants, coffee shops, and bars.

Households in the *Money & Brains* cluster are predominantly city dwellers, often living in fashionable homes on small lots. The Claritas description for this cluster is households that seem to have it all—high incomes, advanced degrees, and sophisticated tastes to match their credentials. By occupation, they are managers and professionals. They are married couples with few children, and most are homeowners. Some would be attracted to a downtown location but are more likely to buy a condominium than to rent.

Bohemian Mix households are the most likely to move to unproven downtown locations. Members of this cluster are very mobile, highly educated and ethnically diverse, mostly singles and couples, and predominantly renters. They are often the pioneer residents in unproven locations.

Urban Achievers are employed in white-collar and service jobs. This group includes young singles and couples, typically with some college education, and is ethnically diverse. Although they tend to rent and appreciate urban locations, they are less affluent than Young Digerati; affordability could be an issue for a luxury rental.

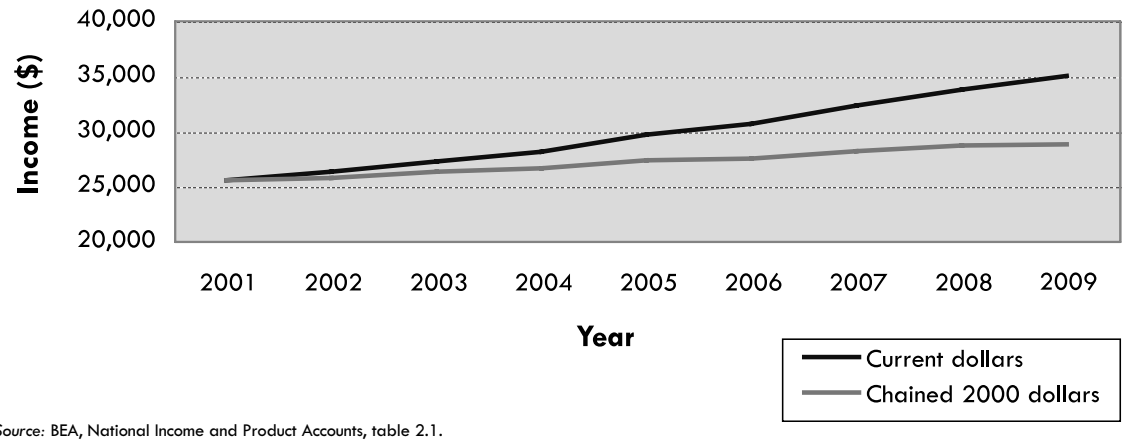
growth, key sources of economic activity, planned expansions and contractions, and household growth patterns within the region.

- Examination of population, household, and employment growth trends and projections for each trade area. For retail analysis, household growth and composition are more important than population growth. The household is the consumer unit, even though individuals will make their own spending decisions on items such as apparel and will make their purchases in different locations. Household composition (families with or without children, singles), tenure, age, and ethnicity also influence how money is spent.
- Analysis of household, family, and per capita income, and the percentage of income available after taxes to spend on consumer goods. Five-year income projections are also important.
- An examination of sources of patronage other than the resident population, such as tourists, convention and business travelers, college students,[12] and workers employed near the subject site. These nonresident sources can be significant in the analysis of demand for retail space in downtowns, near hospitals, or on university campuses. Typically, students are not a major source of revenue, and care must be taken to assess their effect accurately.
- Calculation of expenditure potential, based on household incomes and lifestyles found in the trade areas. The feature box provides an example of how the lifestyle characteristics of trade area households can be summarized in a market study. In the example, the market analyst focused on urban lifestyle categories associated with well-educated, upscale young households (singles and couples) or empty nesters. The analysis was used to determine potential support for a downtown mixed-use project consisting of luxury rental apartments and retail space. It is important to include explanations of the lifestyle descriptions in the text, in footnotes to tables, or in an appendix.

Purchasing Power and Shopping Habits

Determining a trade area's potential spending on retail goods and services (and how these dollars are allocated) requires data on household income,

Figure 5-2
Disposable per Capita Income, 2001 to 2009



Source: BEA, National Income and Product Accounts, table 2.1.

disposable income (after taxes), and demographics/lifestyle characteristics. Household characteristics determine how families spend their discretionary dollars—the money they can spend in stores after paying taxes, the mortgage or rent, utilities, insurance, transportation, health care costs, and other obligations. Also, to the extent that households save or invest a portion of their earnings, these funds are not available for retail spending.

Census Bureau estimates of median household income are based on surveys and are revised each year. Information is available by age of householder, race or ethnicity, household size, and other demographic variables. During the 1980s, real (inflation-adjusted) median household income increased by 8.5 percent, and during the 1990s, it rose another 9.8 percent. However, the seven-year period from 2000 through 2007 showed no real gains. Median household income in 2000 dollars was $50,557; by 2007, it had contracted slightly to $50,233.

The Commerce Department's Bureau of Economic Analysis (BEA) publishes annual and quarterly estimates of disposable (after-tax) per capita income, and adjusts them for inflation, as seen in figure 5-2. Disposable income is also referred to as effective buying income, or EBI. Because the methodology is very different and the BEA's base year is 2000, the results are not comparable to those seen in the Census Bureau's household survey. The BEA numbers suggest that real disposable incomes did increase between 2000 and 2007.

The percentage of disposable income spent on retail purchases varies by income. Other factors that influence spending include household size, the ages of people living in the household, education, ethnicity, and place of residence (urban, suburban, or rural). The BLS's Consumer Expenditure Survey indicates how much households (the BLS uses the term consumer units) spend by income and other characteristics for each major category of goods and services sold in stores. Market analysts can take the per household spending estimates in the latest BLS survey, update them for inflation, and then multiply them by the number of households in the trade area.

However, the results of this type of analysis can be misleading, because the lifestyles and shopping habits of households in the trade area may not match the national averages calculated by the BLS. Also, spending by type of merchandise or service needs to be translated into spending by store type if the data are to be useful in determining store mix at a new or revitalized center. For example, a household that spends $5,000 per year on clothing will make purchases at a number of different store types—full-line and discount department stores, family apparel stores, specialty shops, and even warehouse clubs and superstores. How that $5,000 is spent will also vary based on the age of consumers, where they live, and the extent to which they are brand-conscious or value-conscious. Consumer psy-

Table 5-4
Expenditure Potential for Selected Items, Sample Trade Areas

	Primary Trade Area	Secondary Trade Area	Central Township
Total households	9,437	19,319	35,112
Apparel and services, total ($)	25,035,621	49,713,500	101,178,174
Average spent per household ($)	2,653	2,573	2,882
Spending potential index	99	96	107
Computers and accessories, total ($)	2,680,585	5,269,733	10,898,156
Average spent per household ($)	284	273	310
Spending potential index	119	114	130
Entertainment/recreation, total ($)	40,223,438	76,841,326	161,843,227
Average spent per household ($)	4,262	3,977	4,609
Spending potential index	115	107	124
Food at home, total ($)	53,028,738	104,391,695	212,700,520
Average spent per household ($)	5,619	5,404	6,058
Spending potential index	115	111	124
Food away from home, total ($)	37,780,920	73,939,400	152,260,787
Average spent per household ($)	4,003	3,827	4,336
Spending potential index	117	112	127
Household furnishings, total ($)	24,096,018	46,044,819	97,439,928
Average spent per household ($)	2,553	2,383	2,775
Spending potential index	111	104	121
TV/video/sound equipment, total ($)	15,590,752	30,496,426	62,822,560
Average spent per household ($)	1,652	1,579	1,789
Spending potential index	115	110	125
Retail goods, total ($)	287,232,052	553,995,855	1,157,016,882

Source: ESRI.
Note: Categories are not mutually exclusive.

chographics play an even more important role in shopping patterns than in housing location decisions.

To make the task easier, a number of demographic data vendors (Claritas, ESRI, and DemographicsNow, for example) calculate expenditure potential by type of merchandise or type of store, reflecting their household demographic estimates, consumer psychographics, and the results of the BLS surveys. Some sources allow comparison of trade area spending potential with national averages, using the index numbers seen in tables 5-4 and 5-5.

A comparison of the total potential retail sales and the total actual sales in existing retail areas provides an estimate of *leakage*—whether excess purchasing power is being spent outside the trade area. (Actual sales information is more difficult to obtain than estimates of potential expenditures, as

Table 5-5
2008 Estimated Retail Demand Potential and Sales ($ Millions)

	Zip Code 01111			Census Tract 2		
	Demand Potential	Estimated Sales	Inflow or (Leakage)	Demand Potential	Estimated Sales	Inflow or (Leakage)
Auto parts and accessories	2.2	1.4	(0.8)	0.3	0.0	(0.3)
Building materials, garden equipment, and supply stores	8.0	29.5	21.5	1.0	0.0	(1.0)
Food and beverage stores	40.8	110.3	69.5	5.1	1.9	(3.1)
Health and personal care stores	7.4	19.5	12.0	1.0	4.0	3.0
General merchandise stores	20.8	140.4	119.6	2.6	2.3	(0.3)
Clothing and accessory stores	14.0	125.4	111.3	1.7	2.9	1.2
Furniture and home furnishings	8.9	31.5	22.5	1.1	0.3	(0.8)
Electronics and appliance stores	8.4	30	21.6	1.0	1.4	0.3
Sporting goods, hobby, book, and music stores	3.2	17.5	14.3	0.4	1.8	1.5
Miscellaneous store retailers	2.3	6.3	4.0	0.3	1.1	0.8
Food services and drinking places	34.0	82.4	48.4	4.2	12.2	8.0
Nonstore retailers	13.0	9.5	(3.4)	1.6	0	(1.6)
Total retailers and food and drink	**163.3**	**603.9**	**440.6**	**20.2**	**27.9**	**7.7**

Source: ESRI.
Note: Numbers are rounded from more detailed estimates. Does not include motor vehicle or gas station sales.

will be discussed later in this chapter.) Such a situation could indicate unmet potential for new retail development within the trade area. The opposite situation (known as *inflow*) can exist in locations that have a large inventory of successful retail centers that draw above-average sales from secondary or tertiary trade areas, or from tourists. Table 5-5 provides estimates of sales potential and actual sales for a single ZIP code and for a census tract within it. Because the neighborhood business district in this tract has three pharmacies, it draws spending from outside its boundaries. However, it lacks a supermarket, so potential food and beverage sales are "leaking" out. In contrast, the ZIP code has a super regional mall, a power center, and neighborhood shopping. It shows inflow in every store category.

Changing buying habits, including the rise of Internet and catalog sales, complicate the analyst's task. Even if the numbers show leakage, development opportunities may be weak. The dollars flowing out of the primary trade area may not be sufficient to support the array of stores needed for a successful new center. However, a trade area with a large stock of older retail space may be able to stem the outflow of sales dollars if centers are renovated and more exciting tenants are recruited.

In growing communities, it is not uncommon for centers to be built that exceed the size needed to meet current demand. Using reliable population and household projections for growth areas is important in determining when a center will achieve success. The full sales potential of centers that rely heavily on future trade area growth may not be reached for a decade, as the market matures around them. The risk increases if a center is located too far on the leading edge of growth or is too aggressive in its projections of purchasing power. National economic trends and cycles can slow or stop growth for years, rendering carefully made projections inaccurate. However, developers of new communities in isolated fringe areas may have to build convenience retail facilities before the size of the market fully justifies them; otherwise, they will encounter buyer resistance when marketing homes. Potential homebuyers need to see that basic goods and services are available before they will decide to move into a new community.

In trade areas with low incomes, the proportion of total household income spent in nonfood stores

is typically less than that in an area of middle- or high-income households. In turn, low-income families spend a higher percentage of income on food. Ethnicity influences spending patterns in low-income neighborhoods. Some groups are more "brand loyal," while others are price-oriented. As a result, new retail centers need to be carefully tenanted. Significant purchasing power exists even in the poorest neighborhoods, particularly those in dense urban settings. Because demand may not be fully met, sales (and jobs) leak out into surrounding, wealthier trade areas. In recent years, retailers have begun to better understand the significant potential of untapped markets in lower-income urban areas.

Using Shopper Surveys

Chapter 3 introduced the various ways in which consumer opinion can be solicited when preparing real estate market analyses. Survey research is widely used by shopping center developers, center management, and retail chains, as well as government agencies that are involved in business district revitalization:

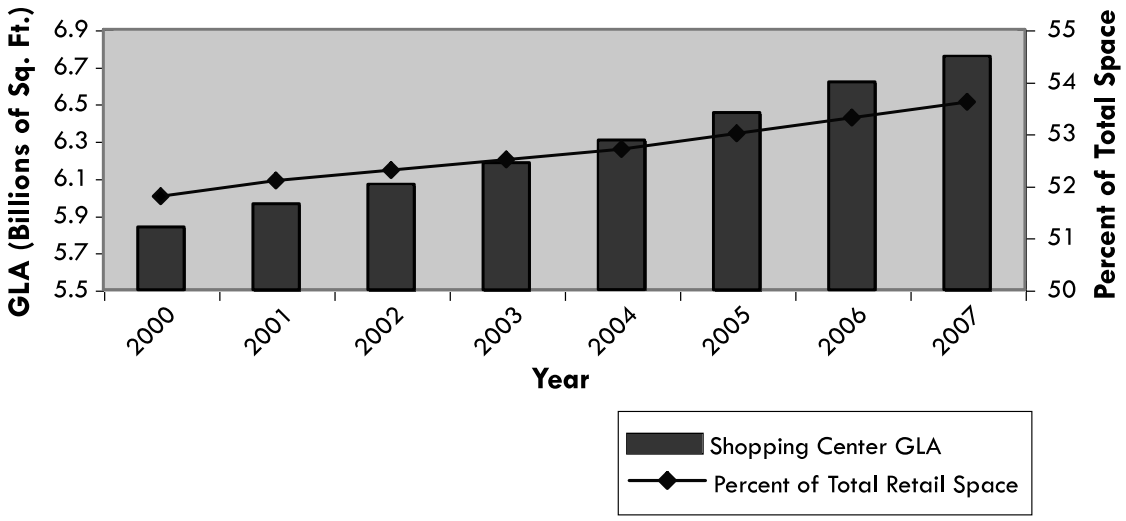
- Management regularly surveys visitors to determine destination stores, typical expenditures per visit, and satisfaction with features such as ease of parking, security, and food court offerings. These intercept surveys are usually conducted by paid interviewers at various locations within the center.
- Economic development agencies and merchant associations use intercept surveys with people on the street. They want to know which businesses are visited, if visitors are happy with their shopping experience, if the merchants are doing a good job, and what improvements should be made to the tenant mix or the physical environment. Occasionally, organizations will commission a mail survey of area residents.
- As indicated in chapter 3, telephone surveys are being used less frequently because of problems with sampling and high costs, but telephone surveys of customer satisfaction are still favored by merchants and service businesses (such as banks) to keep in contact with their patrons.
- If a center is losing tenants or if an expansion is planned, owners may use focus groups to get opinions on what changes should be made and what new store types should be sought.
- Stores offer discount coupons or other incentives to shoppers if they fill out online satisfaction surveys. Participants include people who are buying or returning merchandise.
- Store credit card holders may be asked to participate in similar surveys, with questions regarding items typically purchased, locations most frequently visited, and satisfaction with merchandise (selection, quality) or customer service.

When conducting intercept or mail surveys, it is important to use professionals who have experience in survey design, sampling, and data processing. To provide meaningful input, answers will need to be cross-tabulated with consumer characteristics—place of residence, age, sex, household size, and income. It is also important to know whether the respondent has children (which affects interest in child-oriented stores or entertainment) and whether the respondent rents or owns (which affects demand for home improvement and home furnishings categories). A general rule of thumb is that intercept surveys need a minimum of 300 completed responses to allow for meaningful analysis. The same would be true of a Web-based survey.

In a mail survey, it is important to distinguish the preferences of people who are familiar with the subject shopping center or business district from those who never go there. Respondents who visit the property should be asked about the frequency of their visits, the types of stores they patronize, and their satisfaction with these stores. Those who do not visit the center or business district—or rarely do so—should be asked what changes would be needed to get them to shop there. Mail surveys often get response rates of less than 20 percent, so a much larger number of forms will need to be sent out than is desired for the sample.

If focus groups are the method of choice, it may be necessary to convene multiple groups living within a trade area to learn whether opinions differ. For example, it may be useful to have a group of older adults meet separately from a group of young singles and couples. The venues used for the focus group may influence willingness to participate. Incentives—coupons, gift cards, etc.—as well as refreshments will be needed. The experience of the moderator, carefully selected discussion topics, and the availability of visual aids help ensure the success of this approach to consumer research.

Figure 5-3
U.S. Shopping Center GLA and Share of Total Retail Space, 2000 to 2007



Source: ICSC, "Trends in the Shopping Center Industry," *Retail Real Estate Business Conditions,* vol. 5, no. 15, May 16, 2008.

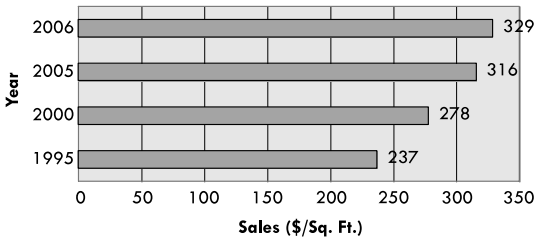
The Supply Side

In the 59 major markets monitored by CoStar, total per capita retail space averaged 43.7 square feet in the third quarter of 2008. However, the amount of space varied widely among the metropolitan markets, ranging from a low of 22 square feet in Long Island to 74 square feet in southwest Florida. In general, metropolitan areas in the Northeast that have viable downtowns, neighborhood business districts, and freestanding stores have less space in centers than do tourist-oriented locations or fast-growing Sunbelt markets.

Figure 5-3 illustrates the growth in shopping center GLA and the growing importance of space in shopping centers during the period from 2000 to 2007. Clearly, the ever-expanding supply of retail space is outstripping population growth. As a first step in evaluating the extent of competition, some analysts will calculate total re-tail space in a trade area, divide the results by a current estimate of the population, and then compare the results with the national average to see if the area is understored. A more accurate analysis of competitive supply requires greater sophistication. The analyst will need to

- provide background information on retail market conditions in the county or metropolitan area, looking at trends in total space inventory, rents, vacancy, and net absorption;
- identify the location of similar properties within the primary trade area and near its perimeter;
- describe the characteristics of competitive centers and relevant freestanding retailing, including the amount of space (square feet of GLA), anchor tenants, types of in-line tenants, age, vacancy rate, sizes of available spaces, and ease of accessibility;
- research the characteristics and status of proposed and planned retail developments in the trade areas, identifying other vacant, zoned sites that could likely become competitive in the future;
- consider the amount of existing retail space relative to the current and projected population and numbers of households;
- estimate the share of potential sales that could be captured by the proposed development given its planned mix of spaces and store types, and the strength of its location; and

Figure 5-4
Shopping Center–Inclined Sales per Square Foot of Space in Centers



Sources: ICSC; CoStar; Census Bureau.
Note: Includes sales at GAFO, health and personal care, food and beverage, building material, and garden supply stores.

- compare projected sales per square foot with the performance requirements of retail chains and actual sales achieved at comparable projects.

Estimating Sales

One way to measure supply and demand balance is to see whether sales per square foot of space continue to grow despite additions to supply over time. As figure 5-4 shows, shopping center sales in the United States in 2006 averaged $329 per square foot, up from $237 in 1995, a gain of nearly 39 percent. The data also show that per capita sales were on the rise during this period, but the numbers are not adjusted for inflation.

Information on current sales for individual shopping centers or stores is not readily available. Publicly held companies will publish overall sales data (and information on sales per square foot) for their portfolios in their annual reports, but they usually do not divulge sales for individual properties. The same is true for chain stores. Center managers may not be willing or able to share sales data with analysts who represent potential competitors. As a result, experienced analysts must make estimates of sales at competitive centers on the basis of the experience of similar properties, as reported in publications such as ULI's *Dollars & Cents of Shopping Centers*.

Additional insight into retail sales volumes can be gleaned from the economic census conducted every five years by the Census Bureau. Sales data are available by type of store for metropolitan areas, counties, and municipalities. For larger geographies, there is considerable detail.[13] The data have limitations, however. For smaller municipalities, Census Bureau confidentiality standards prohibit reporting sales if there are only one or two stores of a give type in the jurisdiction. Also, the data are collected only twice a decade and often are not published until three years after the sales year.

The increasing complexity of the retail business, combined with a multiplicity of overlapping trade areas, requires that the analyst use multiple methods to estimate potential sales. By doing so, the analyst can project the range of anticipated sales at the proposed center, and the developer can plan for different scenarios.

A number of computer programs can help forecast sales volume for individual retail stores. Analog models compare the trade area characteristics of a proposed store with existing locations, using regression analysis to project the new store's sales. Other, simpler methods are used by retailers who compare sales per square foot of the other stores in its chain and assume a similar productivity per square foot for a new store, adjusted for variations in trade area characteristics. Or a retailer may estimate the volume achieved by its competitors in the trade area and then redistribute these sales based on its entry into the market. Retailers also estimate a new store's market share based on shares achieved in other comparable locations. The latter methods work well for supermarkets, where a limited number of chains with established positions compete in a trade area.

Construction Activity and Future Competition

Unlike residential building permit statistics collected by the Census Bureau, there is no comprehensive source of government data on retail construction. Even where state or metropolitan agencies collect data, its scope varies among jurisdictions.[14] Current construction and announced projects are monitored by private sources, who sell their information for a fee. Information is compiled by regional correspondents using press reports and conversations with local construction and economic development officials.

Analysts can compile their own lists of projects in the development pipeline, thereby avoiding paying fees charged by private vendors and en-

suring that data meets their own criteria. However, it will usually be necessary to contact multiple jurisdictions in a trade area and then review planning department files, which can be time-consuming activities.

Putting It All Together

When looking at a proposed new retail facility, the analyst will be asked to provide an opinion of how many square feet of space can be supported, using sales levels that will meet the expectations of prospective tenants. The analyst will need to estimate a capture rate—the percentage of expenditure potential in the trade area that is likely to be captured at the site, given the competition, the planned mix of stores, and the likely anchor tenants. If relevant, the analyst will suggest the dollar volume of additional sales that might be expected from tourists, college students, nearby workers, or other nonresident shoppers.

Data on median sales per square foot of space by store type can be found in ULI's *Dollars & Cents of Shopping Centers*. As shown in table 5-6, median sales for center types are provided for each of the four U.S. Census regions. This publication also provides information on median sales per square foot for individual store types in these centers.

The analyst may need to adjust center or store sales norms on the basis of the proposed center's location and the likelihood of getting the best-performing anchor tenants. For example, if a typical family apparel store generates sales that average $250 per square foot, a top performer will expect to do much better and will want to see that there is sufficient purchasing power to achieve its target sales.

The market analyst may be asked to provide an opinion on the proposed project, such as making recommendations regarding the mix of stores, anchor tenants, design elements, parking, signage, or traffic signalization. He or she will also be asked to give an opinion on rents that could be achieved for spaces that are not anchors, given what is available elsewhere in the primary market area.

In contrast to market studies for residential properties, the analyst may not be asked to estimate monthly absorption in a retail market study. As a practical matter, large new projects cannot go ahead without significant preleasing or sales of store sites. In a power center, where big-box tenants will fill more than 80 percent of the space, the absorption rate for small in-line spaces will be less important than the ability to obtain secure commitments for the big spaces. (At the same time, it is important to remember that small shops pay more per square foot and thus may contribute more to the bottom line.) In contrast, absorption estimates may be needed in neighborhood, community, or lifestyle centers, where small shops fill the bulk of the space and construction often begins with less than half of the space committed.

Table 5-6

Median Sales per Square Foot by Type of Center, 2007

Center Type	Median Sales per Sq. Ft. ($)
Super Regional	**280**
East Region	248
South Region	274
Midwest Region	318
West Region	297
Regional	**268**
East Region	NA
South Region	NA
Midwest Region	223
West Region	373
Super Community/Community[a]	**319**
East Region	329
South Region	224
Midwest Region	312
West Region	312
Neighborhood Center	**339**
East Region	308
South Region	348
Midwest Region	190
West Region	377

Source: ULI and ICSC, *Dollars & Cents of Shopping Centers: The Score, 2008*.
a. Includes traditional community centers, power centers, town centers, and lifestyle centers.

Data Sources

Sources of demographic and psychographic data used to provide vital background information on a trade area's population, households, household

characteristics, lifestyles, housing tenure, and income are discussed in chapter 3. Retail market analysts will need to translate these numbers into purchasing power and estimates of supportable sales. As indicated earlier, demographic data vendors such as Claritas, ESRI, and DemographicsNow rely on the BLS's Consumer Expenditure Surveys to model expenditure potential by type of store.[15] In some cases, the market analyst will want to use local population and household estimates and projections, applying them to estimates of per household spending from other sources. The private data vendors also prepare sales estimates and calculate inflow or leakage, as was illustrated in tables 5-4 and 5-5.

Additional sources are necessary to estimate demand from nonresident sources: nearby workers, tourists, or college students living in dorms. The ICSC conducted surveys of office worker spending (downtown and suburban) for meals and other purchases; the results were published in 2004 and need to be updated for inflation and for local price differentials.[16] Similarly, the National Association of College Stores (www.nacs.org) conducts periodic surveys of retail spending by college students. Rough estimates of visitor spending may be available from local convention and visitors bureaus.

On the supply side, statistics on physical characteristics and market performance are more widely available for shopping centers than for freestanding space or streetfront retailing. However, the market analyst will not be able to find published sales data for individual centers, except in occasional press releases when a center's sale or expansion is announced to the public. The demographic data firms provide estimates of sales by store type; they also provide comparisons of sales potential, with estimated sales activity by major NAICS code, and indicate which store types are experiencing inflow or leakage.

Background information on shopping centers and retail stores can be obtained from many sources.

- Every two years, ULI and the ICSC publish *Dollars & Cents of Shopping Centers*. This reference source provides information on sales performance by size and type of center (and for individual store types), drawn from surveys of more than 1,000 U.S. and Canadian centers.
- The ICSC (www.icsc.org) reports monthly sales at mall shops for regional and super regional centers, but these data are available only to members. Information on individual centers is not released. The ICSC also publishes a monthly news magazine (*Shopping Centers Today*) with feature stories on center tenanting, construction, and operations, as well as specialized research reports. The ICSC *Research Review* is a quarterly publication on topics of interest to the industry.
- The Census Bureau's economic census of retail trade and the food service industry can be found online (www.census.gov/econ/census02/index.html) and through the Census Bureau's American Fact Finder. The Web site has drill-down menus that enable the researcher to focus on the number of retail and restaurant establishments, sales, payrolls, and employment for particular geographic areas or store types. Sales details are not available at the census tract level.
- States that collect sales taxes may have information on receipts by municipality. This is especially likely in areas where counties or cities levy their own sales taxes.
- The National Retail Federation (www.nrf.com) represents all types of retail stores as well as catalog and Internet merchants. It publishes *Stores* magazine and periodically ranks top retailers in terms of revenues and store growth. The NRF also issues occasional special reports on holiday spending and online purchasing.
- Another source of news on retailer expansion plans is *Retail Traffic* magazine.
- The Main Street Center (www.mainstreet.org), an affiliate of the National Trust for Historic Preservation, offers technical assistance and publications designed to help communities revitalize their traditional, pedestrian-oriented business districts. Many states have similar programs for older downtowns and for transit-oriented development projects.
- Shopping center directories (national and regional) are available in a variety of formats—online, on CD-ROM, and in print. The ICSC's *Global Shopping Center Directory* is available for members only. This searchable directory includes basic shopping center data, such as center name, location, owner or developer, year opened, size (GLA), key tenants, number of tenants, and a contact person. The *Directory of*

Major Malls (www.shoppingcenters.com) covers centers with at least 250,000 square feet.

- Similar searchable directories are available for retail and restaurant chain tenants. Sources include the *Retail Tenant Directory* (www.retailtenants.com) and *Chain Store Guide* (www.csgis.com). These sources provide information on store expansion plans.
- *Chain Store Age*, a trade publication, provides an annual list of the top 100 U.S. retailers, including data on number of stores and sales revenues.
- Information on shopping centers and retail trends can be purchased for metropolitan markets and selected submarkets from such sources as REIS, CoStar, or Torto-Wheaton Research. A subscription is not required; reports for a single market are available.
- National brokerages such as Marcus & Millichap and CB Commercial have reports on national market conditions and provide greater detail for larger metropolitan markets.
- Local commercial brokers, chambers of commerce, newspapers, and business journals often prepare lists of the larger shopping centers. Brokers' online listings of available space can be helpful in gathering information on asking rents. A visit to a local broker can also be helpful to get a sense of rent and vacancy trends, as well as store chains looking for space in a particular trade area.
- Sales information for individual chains can be found by perusing corporate annual reports or searching retail trade newspapers and magazines.

Online and print directories are updated at least once a year, but the tenant mix in centers changes frequently and new competition is always being added. The expansion plans of chain stores and restaurants can also change, as dictated by general economic conditions or store performance. Shopping center or tenant directory listings should be checked in the field. Follow-up telephone contacts with center managers or leasing agents are necessary to learn about future expansion or renovation plans and anticipated changes in tenancy, as well as current rents and common area maintenance charges. Some managers may be willing to share data on sales per square foot.

Data on retail space and other commercial construction activity are available for a fee from F. W. Dodge (a subsidiary of McGraw-Hill) and Property and Portfolio Research (PPR).[17] Dodge data are more oriented to construction contractors looking for future business opportunities (they also include public sector construction projects), while PPR data are tailored to real estate investors. PPR's *ConstructionTrak* contains detailed project listings, indicates the status of construction plans, and provides contact information. Updated weekly, *ConstructionTrak* covers all metropolitan areas and is searchable. Dodge customers can purchase reports on historic and projected construction value and square feet of space for individual metropolitan areas, but no submarkets are delineated.

Overview of Case Studies

This chapter includes two case studies. The first analyzes the market potential for street retail as part of a downtown revitalization program in a city in Tennessee. It analyzes the spending potential of each type of downtown visitor, emphasizing the importance of making realistic assumptions. The second case study analyzes a neighborhood-focused retail center in Patterson Ranch, a master-planned community under development in Fremont, California, that is slated to include 800 housing units at buildout. The study analyzes the sales potential from those future households in addition to that from current residents and nearby workers.

Notes

1. ULI–the Urban Land Institute and the International Council of Shopping Centers, *Dollars & Cents of Shopping Centers/The Score: 2008*, p. 5.

2. GLA is measured from the centerline of joint partitions and outside wall faces.

3. GAFO includes stores in the following NAICS codes: 442, 443, 448, 451, 452, and 4532.

4. Some limited-service restaurants cook food to order and bring it to the table (NAICS code 72221) and make deliveries. NAICS code 722 also includes self-service restaurants (cafeterias and buffets), specialty food and beverage establishments (ice cream and yogurt shops, juice bars, coffee bars), caterers, food service contractors at business establishments, and mobile food trucks.

5. Monthly sales data are reported by NAICS code for each type of store. Monthly sales are cited both with and without seasonal adjustments. Year-end totals take seasonal variations into account and are revised periodically.

6. Anchors are traditionally department stores but increasingly can be other large stores or entertainment uses.

7. Although they can benefit from being close to other shopping attractions, freestanding stores usually enjoy lower occupancy costs. Freestanding retailers do not have to pay for common area maintenance, mall marketing, and management. Also, some chains want exclusive control over store siting, design, and parking, which is not always possible in a multitenant shopping center.

8. Many communities are concerned about the amount of ground-floor office space in town centers and neighborhood business districts; they would prefer that storefronts be occupied by retail shops and restaurants, with office-space users on the upper floors.

9. ICSC, "Trends in the Shopping Center Industry," *Retail Real Estate Business Conditions*, vol. 5, no. 15, May 16, 2008.

10. Andrew E. Kramer, "In Siberia, Shopping Malls Are Sprouting All Over," *New York Times*, May 17, 2008.

11. Over time, the percentage of department stores that own their buildings has increased.

12. College students who reside in dormitories are part of census population counts but are not considered to be living in households. Although they may spend considerable amounts of money at stores near campus, their buying power is not typically included in estimates of expenditure potential for trade areas.

13. Retail stores are found under NAICS 44 and 45, and eating and drinking places under NAICS 72. For smaller places, data are provided at the three-digit NAICS code level. For larger jurisdictions, the information may be at the more detailed four- and five-digit NAICS level.

14. Some sources focus on the dollar value of commercial construction permits and do not provide data on GLA. In a mixed-use project, retail space many not be distinguishable from office space.

15. www.bls.gov/cex. Results from the 2006 Consumer Expenditure Survey included information on spending by age, education, Hispanic origin, race, and occupation of the reference person (similar to head of household), as well as the consumer unit's region of residence, size, number of wage earners, and housing tenure.

16. International Council of Shopping Centers, *Office Worker Retail Spending Patterns* (New York: ICSC, 2004).

17. www.ppr.info/products/research/supply.

Case Study 5.1

Retail Center: Fremont, California, 2008

Aaron Gruen

Gruen Gruen + Associates (GG+A) conducted a market reconnaissance of convenience retail uses that might be supportable at the Patterson Ranch Town Center in Fremont, California. The four-acre site is located at the corner of Ardenwood Boulevard and Paseo Padre Parkway, on the west side of Tupelo Street. The site is part of the 101-acre Patterson Ranch development, which is planned to include 800 housing units and 17 acres of open space, parks, and trails. Adjoining and nearby uses include the Ardenwood Technology Park to the southwest and the Villa D'Este, a development of townhomes and detached, single-family homes at the southeast corner of Paseo Padre Parkway and Ardenwood Boulevard. The Ardenwood Forest and Ardenwood Villages communities are located east and southeast of the site.

Overview of Local Retail Base

Fremont's retail base consists primarily of convenience and neighborhood-serving uses. The city currently lacks comparison, shoppers' goods, and destination-type, larger-scale retail formats found in neighboring communities (such as the Newpark Mall or Union Landing). According to a recently completed Fremont retail market assessment, the city contains approximately 3.6 million square feet of retail space. Fremont's larger community and power center shopping locations include Mowry Landing, Fremont Hub, and Pacific Commons, all of which are more than four miles from the site. Given Fremont's current population, the total retail space inventory equates to approximately 17 square feet of retail space per capita, or about 20 percent less than the California per capita average of 21 square feet. Fremont residents are esti-

Figure 5.1-1

Retail Supply within 2.5 Miles of Site

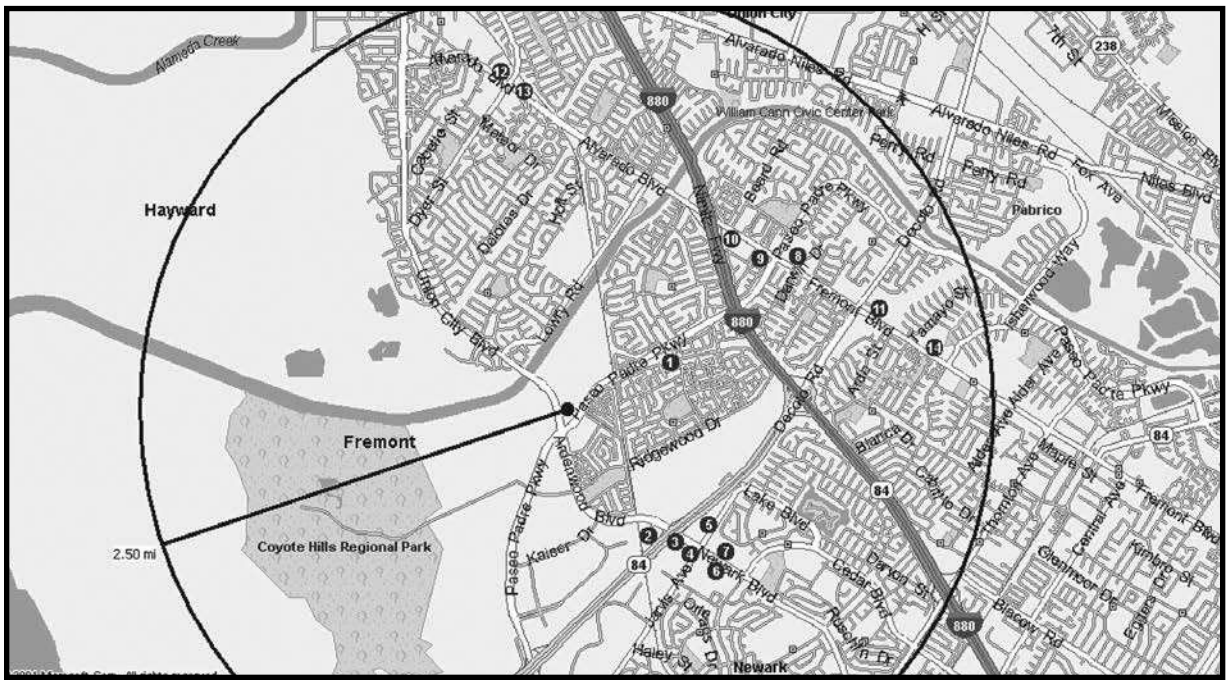


Table 5.1-1
Neighborhood and Convenience Retail Supply Near Patterson Ranch

Map ID	Distance from Site (Miles)	Name	Location	Year Built	Total Space (Sq. Ft.)	Occupancy Rate (%)	Asking Annual Rent ($/Sq. Ft.)	Anchor Tenants
1	0.8	Ardenwood Plaza	Paseo Padre and Deep Creek	1988	32,000	100		Round Table Pizza
2	0.8	Ardenwood Center	Ardenwood and Highway 84	1992	38,000	100		76 Gas Station, Jack in the Box
Outside Primary Market Area								
3	0.9	Aspenwood Marketplace	Newark and Jarvis	2007	15,000	57	36	Chipotle, Credit Union
4	1.0	Raley's Center	Newark and Jarvis	1991	120,000	97	19–25	Raley's, Blockbuster
5	1.0	Newark Marketplace	Newark and Jarvis	1993	170,000[a]	81	30–42	Safeway, OSH, Starbucks
6	1.2	Lido Faire Center	Newark and Jarvis	1980s	100,000	76	21–24	Ranch 99 Market, Fun Fitness Video
7	1.2	Rosemont Square	Newark and Jarvis	1980s	90,000	61	24	Longs Drug
8	1.7	Northgate Center	Paseo Padre and Fremont	1977	75,000	100		Ranch 99 Market
9	1.7	Pegasus Center	Paseo Padre and Fremont	1986	11,000	100		Fremont Video
10	1.7	Charter Square	Paseo Padre and Fremont	1987	73,000	92	30	Lucky Grocery
11	1.9	Walgreens Plaza	Desoto and Fremont	1994	40,000	97	29	Walgreens
12	2.1	Alvarado Plaza	Alvarado and Dyer	2007[b]	100,000	100		Seafood City Market, Rite Aid
13	2.1	Alvarado Place	Alvarado and Dyer	2007[b]	50,000	80	36	Autozone
14	2.4	Brookvale Center	Fremont and Nicolet	1968	131,000	99	30	Lucky, Longs Drug, Bally Fitness
Total Retail Supply					**1,045,000**	**89**	**19–42**	

Sources: City of Fremont Planning Department; Duckett Wilson; Colliers; NAI BT Commercial; Cornish & Carey; Prime Retail Inc; Gruen Gruen + Associates.
a. Includes 2,200-square-foot outlot parcel currently under construction.
b. Built in 1973 but remodeled in 2007. Additional shop space was added to the Alvarado Place center.

mated to spend more than $1 billion on retail goods and services outside the jurisdiction.[1]

The Ardenwood District, in which the site is located, includes approximately 250,000 square feet of convenience and neighborhood retail space, the majority of which is concentrated north of Interstate 880 along Fremont Boulevard. The Ardenwood District accounts for nearly 16 percent of Fremont's household base but contains less than 7 percent of all retail space within the city. Field visits to the area suggest that many residents and employees of the Ardenwood District leave the neighborhood for much of their day-to-day shopping.

1. Thomas Consultants, "Fremont Retail Market Assessment and Downtown Retail Strategy Study," unpublished.

Primary Advantages and Disadvantages of Site

The location of the subject site offers several comparative advantages :

- An accessible location at a signalized intersection with visibility from all directions.
- Proximity to high traffic volumes (30,000 daily vehicles on Ardenwood Boulevard and 13,000 daily vehicles on Paseo Padre Parkway). Interviews suggest that because of increasing congestion on I-880, traffic patterns are shifting so that drivers increasingly use Union City Boulevard and Ardenwood Boulevard to access Highway 84, in order to avoid I-880.
- Proximity to the Ardenwood Technology Park and its large employment base, suggesting employee demand for goods and services as well as food options.

- New and planned residential construction on adjacent parcels.
- Significant population density in the trade area.
- Limited existing competition within the Ardenwood neighborhood, a largely "built-in" customer base, and the potential for the site to attract both residents and workers.

The site faces potential constraints on retail demand:

- The trade area is circumscribed because highways and a river serve as actual and psychological barriers to prospective customers.
- The immediate area lacks a critical mass of retail uses. The location is not an established retail node and is not near the two existing convenience centers, Ardenwood Plaza and Ardenwood Retail Center.

Review of Area Retail Supply

The definition of the primary market area for convenience retail space at the site was derived based on advantages and disadvantages, geography, and access factors summarized above, and the locations and types of retail space within one to three miles that can be expected to compete with the site for both tenants and customers.

Existing Retail Nodes Constrain Potential Market Area Depth

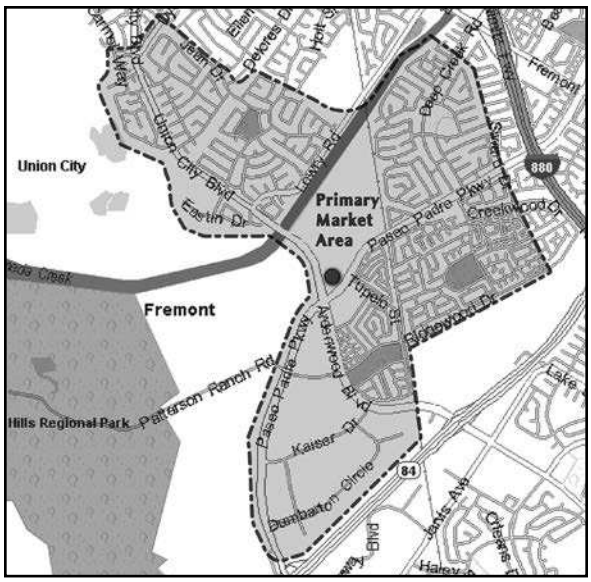
Ardenwood neighborhoods located west of I-880 and directly adjoining the site currently lack easy access and proximity to convenience shopping alternatives. The broader area offers a relatively complete supply of neighborhood and convenience retail space.

Figure 5.1-1 and Table 5.1-1 show the supply of grocery and drugstores that anchor three distinct neighborhood retail concentrations surrounding the site. These neighborhood-serving agglomerations are generally located at

- Newark Boulevard and Jarvis Avenue in Newark;
- Alvarado Boulevard and Dyer Street in Union City; and
- Fremont Boulevard between Paseo Padre Parkway and Thompson Avenue.

Collectively, these areas contain approximately 1 million square feet of neighborhood and convenience retail space. Although a relatively small convenience retail cluster at the site cannot be expected to establish a customer draw extending 2.5 miles, the supply within the broader area was reviewed to obtain an accurate representation of the local competition.

Figure 5.1-2
Primary Market Area



Primary Market Area Definition

A primary market area is defined as the geographic area from which most (that is, 70 percent or more) customers are drawn. Interviews for this study suggest that, given traffic congestion on I-880, more local commuters are likely to use Ardenwood/Union City Boulevard to access Highway 84 than has historically been the case. Because no retail space currently exists on Union City Boulevard directly north of the site, and because traffic flow southbound on Ardenwood Boulevard/Union City has increased and is expected to continue to increase, retail space developed at the site is likely to capture households and commuters located farther to the north than in other directions.

Based on a synthesis of interviews, a review of competing supply, and consideration of the site's advantages and disadvantages, figure 5.1-2 shows the boundaries of the primary market area within which the site is expected to compete for consumer dollars. The market area is generally bounded by Siward Drive to the east, Jean Drive

Table 5.1-2
Estimates of Households and Income within the Primary Market Area

	Actual 2000	Estimated 2008	Forecast 2013	Change, 2000–2008 Number	Change, 2000–2008 Share (%)	Change, 2008–2013 Number	Change, 2008–2013 Share (%)
Households	5,696	5,545	6,621[a]	(151)	(3)	1,076	19
Avg. household income	$102,022	$121,118	$127,300[b]	$19,096	19	$6,182	5
Total available household income	$581,117,300	$671,599,300	$842,853,300	$90,482,000	15	$171,254,000	25

Sources: Claritas; U.S. Census Bureau; Gruen Gruen + Associates.
a. Claritas projects household growth of only 34 households over the next five years. The forecast was increased to reflect the addition of the active and proposed projects.
b. Assuming real annual household income growth of 1 percent.

and Union City Boulevard to the north and northwest, Paseo Padre Parkway to the southwest, and Dumbarton Circle and Ridgewood Drive to the south.

The primary market area currently includes approximately 70,000 square feet of convenience retail space. Two smaller strip centers are located within one mile of the site along Paseo Padre Parkway to the east and Ardenwood Boulevard to the south.

Ardenwood Plaza, built in 1988, includes approximately 32,000 square feet of small convenience retail and service space. It is anchored by a Round Table Pizza but consists primarily of small service providers, such as daycare, after-school programs, a dentist office, a veterinary clinic, a dry cleaner, and a hair salon. A broker familiar with Ardenwood Plaza indicated that the daycare and after-school programs have kept the older, poorly designed center afloat.

Ardenwood Retail Center, adjoining the on-ramp to Highway 84 and Ardenwood Boulevard, is a 16-year-old, 38,000-square-foot strip center. The center is primarily highway-oriented; it includes a gas station, a car wash, a Jack in the Box fast-food restaurant, and a miniature golf course and go-kart track. The in-line retail space consists of small restaurants and service providers. The center had no vacancies at the time of field research. No additional supply of retail space is currently planned or proposed.

Estimated Potential Retail Demand

GG+A obtained demographic and housing data to determine the purchasing power of metro-area residents and employees and to project future household growth. These data are used to estimate current and future demand within the primary market area. Retail demand is presented in terms of expenditure potential and the amount of store space it can support.

Households and Income within the Market Area

As of the 2000 Census, the primary market area included approximately 5,700 households with an average household income of $102,000. Total available household income approximated $581 million in 2000. Claritas estimates that the primary market area in 2008 includes 5,545 households with an average household income of $121,100. Total available household income is estimated at $671.6 million.

Claritas projects that the market area will include 5,579 households in 2013, representing only 34 additional households over the next five years. This projection is unrealistic, given the currently active residential developments and proposed future supply additions within the primary market area. The Patterson Ranch project alone is currently planned to include 800 additional housing units. The Villa D'Este development adjoining the site to the south includes 276 townhome and single-family units that are currently under construction (or recently completed).[2] These two projects will potentially add 1,076 households to the primary market area when built out. Accordingly, these residential units are accounted for in the 2013 forecast of primary market area households. The primary market area is forecast to include approximately 6,621 households by 2013. Assuming real average household income grows at 1 per-

2. City of Fremont Planning Division, Development Activity List, fall 2007, p. 1.

Table 5.1-3
Average Annual Expenditures by Households within the San Francisco Metropolitan Area, 2006

Item	Annual Household Expenditures ($)	Share of Average Household Income[a] (%)
Groceries	3,873	4.3
Food away from home	3,769	4.2
Personal care products/services	1,284	1.4
Housekeeping supplies	625	0.7
Reading materials	205	0.2
Health care (prescription and nonprescription drugs, supplies)[b]	643	0.7
Alcoholic beverages/ tobacco products	908	1.0
Total	11,307	12.5

Sources: Bureau of Labor Statistics, 2006 Consumer Expenditure Survey; GG+A.
a. Average household income in the Bay Area in 2006 was $90,781.
b. Not including health insurance or medical services.

cent annually, average household income within the market area is estimated to approximate $127,000 in 2013, for a total available household income of $842.9 million. Table 5.1-2 presents current and historical estimates of households and average household incomes in the market area.

Retail Expenditure Rates

To estimate the potential purchasing power for neighborhood and convenience center-type goods, GG+A reviewed the 2006 Bureau of Labor Statistics Consumer Expenditure Survey (CES) for the San Francisco metropolitan area and recent research on retail expenditure patterns. As summarized in table 5.1-3, the CES indicates that Bay Area households expend approximately 12.5 percent of their before-tax income on convenience-related retail goods and services (such as groceries, food away from home, personal care products, personal services, household supplies, magazines, and medicines).

Table 5.1-4
Retail Expenditure Potential of Market Area Households ($)

	2008	2013
Total household income	671,599,300	842,853,300
Potential purchasing power, 12.5% expenditure rate	83,950,000	105,357,000
Increased expenditure potential, 2008–2013	—	21,407,000

Sources: Claritas; Bureau of Labor Statistics; GG+A.

Table 5.1-5
Retail Expenditure Potential of Market Area Employees ($)

	2008	2013
Total employees[a]	4,000	4,400
Annual convenience-related expenditures per employee[b]	2,080	2,080
Total expenditure potential[c] ($)	7,488,000	8,236,8800

Sources: Claritas; Bureau of Labor Statistics; Census Bureau; ICSC; GG+A.
a. Assuming annual employment growth of 2%. According to the 1998 and 2005 ZIP code business patterns, employment within the local area has grown at approximately 5.3% annually over the past seven years.
b. Assumes each worker expends $8 a day, 260 working days a year.
c. Discounted by 10% to account for employees who reside in the trade area.

Estimated Expenditure Potential

Table 5.1-4 presents estimates of potential retail demand within the primary market area that is attributable to households and the identified expenditure rate for the type of goods and services found in convenience and neighborhood shopping centers. The expenditure potential attributable to market area households is currently estimated at nearly $84 million. By 2013, the retail expenditure potential is estimated to be approximately $105.4 million, an increase of $21.4 million.

Table 5.1-5 presents the estimated expenditure potential that is attributable to daytime employees working within the market area, primarily at the Ardenwood Technology Park. The primary market area is conservatively estimated to include 4,000 employees currently. This

Table 5.1-6
Performance of Retailers, Restaurants, and Service Providers Typically Located in Neighborhood and Convenience Shopping Centers

Grocery Stores	Annual Sales per Sq. Ft. ($)	Casual Restaurants and Service Providers	Annual Sales per Sq. Ft. ($)
Walgreens	797	Chipotle	530
Longs Drug	615	Cosi	490
CVS Pharmacy	508	Panera Bread	418
Neighborhood drugstore	513	Dry cleaner	236
Safeway	497	Coffee shop	286
Supervalu (Lucky, Albertsons)	392	Takeout restaurants	266
Neighborhood supermarket	458	Hair salon	143
		Mail/packaging	227

Sources: ULI, *Dollars & Cents of Shopping Centers: The SCORE 2006*; annual 10K reports from individual retailers listed; GG+A.

estimate was derived from a review of ZIP code business pattern data, secondary business establishment data from Applied Geographic Solutions, and interviews with a local office broker and city planning staff.

Assuming local workers spend $8 per day on convenience items (for 260 working days per year), the employment base within the primary market area is estimated to yield a retail purchasing power of approximately $7.5 million, assuming a 10 percent overlap between workers and residents.[3] By 2013, assuming moderate employment growth within the market area totaling approximately 400 new jobs, total retail purchasing power by workers within the primary market area is estimated at $8.2 million, representing an increase of approximately $749,000.

Sales Thresholds

To convert estimates of expenditure potential or purchasing power into estimates of potential retail square footage, one must make an assumption about the average sales per square foot needed for tenants to operate viably and for landlords to obtain sufficient rental income to amortize development costs and provide a satisfactory return on investment. Shopping centers throughout California, for example, yielded an average sales productivity of $351 per square foot in 2006.[4] According to ULI's *Dollars & Cents of Shopping Centers*, neighborhood shopping centers generated average sales of $343 per square foot throughout the western United States in 2006.

Overall retail sales in Fremont are consistent with regional benchmarks. According to the State of California Board of Equalization, total annual retail sales (nonautomotive) in 2006, within Fremont, were approximately $1.3 billion. This total suggests an overall sales productivity of approximately $360 per square foot, based on a total retail inventory of 3.6 million square feet. Table 5.1-6 summarizes the productivity in sales per square foot for general retail store categories and a sample of national chain retailers that often locate in neighborhood retail centers.

A real estate representative with a national chain drugstore indicated that should it open a store location at the site, expected sales performance would be approximately $630 per square foot. Consistent with this estimate, major drugstore retailers (Walgreens, Longs Drug, CVS) obtain average sales ranging from $508 to $797 per square foot. Smaller "quick casual" chain restaurants such as Chipotle Mexican Grill, Panera Bread, and Cosi also obtain relatively high sales per square foot, ranging from $418 to $530 per square foot. According to ULI's 2006 *Dollars & Cents of Shopping Centers*, smaller and local in-line tenants at convenience or neighborhood centers generally achieve lower sales. For example, dry cleaners, takeout restaurants, and hair salons obtain sales ranging from $143 to $286 per square foot.

3. A 2003 ICSC survey found that suburban office workers spend an average of $40 a week on convenience items ("Office Worker Spending Patterns," *ICSC Quarterly Research Review*, Spring 2004, p. 7).

4. ICSC, "The U.S. Shopping Center Industry—Size, Shape, and Impact," Research Review, vol. 14, no. 2, p. 36.

Table 5.1-7
Estimated Supportable Retail Space Demaned within the Primary Market Area, 2008 to 2013 (Sq. Ft.)

	2008	2013	Change, 2008–2013
Retail space supported by trade area households	186,600	234,100	47,500
Retail space supported by trade area workers	16,600	18,300	2,300
Total[a]	203,200	252,400	49,200

Source: GG+A.
a. Based on sales requirement of $450 per square foot and total expenditure potential (retail demand) of $91.4 million in 2008 and $113.6 million in 2013.

Table 5.1-8
Retail Supply and Demand in Primary Market Area, 2008 and 2013 (Sq. Ft.)

	2008	2013
Estimated supportable convenience retail space demand (sales threshold of $450 per sq. ft.)	203,200	252,400
Estimated supply of convenience retail space	70,000	70,000
Unmet demand potential for additional convenience retail space	133,200	182,400

Source: GG+A.

The level of sales obtained by a specific tenant or shopping center also tends to be consistent with the amount of rent paid to the property owner. According to ULI's 2006 *Dollars & Cents of Shopping Centers*, annual rents for neighborhood and convenience shopping centers ranged between 5.3 and 6.7 percent of annual sales, suggesting that a neighborhood shopping center with annual rents of $24 per square foot would need to generate sales of approximately $350 to $450 per square foot. Based on the review of sales per square foot data presented above, a required sales threshold of $450 per square foot was assumed.

Retail Space Demand

Using a sales threshold of $450 per square foot, table 5.1-7 presents the estimated amount of convenience retail space supported by the expenditures of market area households and workers in 2008 and 2013. At approximately $91.4 million in 2008, total retail expenditures from residents and workers within the primary market area can support approximately 203,000 square feet of convenience retail space. By 2013, forecast retail demand of $113.6 million is estimated to support approximately 252,000 square feet of such space.

Relationship between Total Convenience Retail Space Supply and Demand

Table 5.1-8 presents the relationship between two key measures of the primary market area: the estimated square feet of convenience retail space that the forecast demand from households and workers can support in 2008 and 2013, and the current and potential supply of convenience retail space. The comparison suggests the relative intensity of competition for the expenditures of households and workers and the potential to support additional retail facilities.

Within the primary market area, the estimated supportable amount of retail space in 2008 (203,000 square feet) and in 2013 (252,000 square feet) is forecast to exceed the amount of existing retail space (70,000 square feet) by 133,000 square feet in 2008 and 182,000 square feet in 2013. This finding suggests that construction of new space is justified.

Case Study 5.2

Downtown Retail: Tennessee City, 2008

H. Blount Hunter

Since the 1980s, the downtown districts in many American cities have flourished as settings for office employment, attracted new residents in new market-rate housing, and become destinations for millions of annual visits to festivals, entertainment and cultural venues, museums, sports facilities, and tourist attractions. Some downtowns are once again busy mixed-use districts, drawing residents from throughout their host metropolitan areas and attracting a range of visitors, including convention delegates, business travelers, and vacationers.

The addition of "shoppers' goods" retailing in urban areas is typically the culminating achievement of years of redevelopment and mercantile evolution. In most instances, revitalized downtowns regain positions of importance in the lives of metro-area residents by using community events and cultural and entertainment programming to attract patrons. Restaurants then follow as a natural extension of the entertainment and recreational use of the downtown. Sustained momentum as a dining destination makes pioneering retailers begin to perceive a viable consumer market, and the retail base begins to evolve. As merchandise offerings become broader or take on a specialized focus, downtown can become a sustainable niche within the larger metropolitan area.

An increasing number of business improvement districts and downtown organizations are embracing the premise that urban retail development evolves in phases. The initial stage of urban retail rejuvenation should attempt to match the amount of retail space and merchandise offerings to current downtown users. In early-stage retail rejuvenation, shopping may be a secondary activity for patrons who are drawn downtown for another purpose. Over time, the emergence of a critical mass of retailing may result in downtown becoming a destination primarily for the purpose of shopping.

The analytical process outlined in this case study stems from the perspective of urban retailing as an evolving opportunity that is best addressed by initially serving the casual purchasing behavior of current downtown users—the vast majority drawn to downtown for other purposes. With a focus on existing downtown patrons, it is critical to understand the size and composition of the current base of users and to acknowledge that casual purchasing activity and modest spending levels create significant merchandising limitations in the early stage of retail rejuvenation. The most successful initial merchandise offerings will be goods that require minimal comparison shopping either for price or for selection. Unique specialty goods are more likely to appeal than commodity goods.

Urban versus Suburban Retail Demand Analysis

Communities and developers face the challenge of demonstrating the opportunity for retail development in rejuvenated downtown areas. Urban retail demand analysis is not well served by traditional analysis methodologies for suburban shopping center sites because the models typically build on drive-time assumptions to establish trade areas. Once a trade area has been established, "capture rate" assumptions can be applied to predict consumer spending on routinely purchased items. Demand analysis for suburban shopping centers has evolved into such a science that the geographic origin and probable spending of future patrons of a center can be predicted with reasonable confidence from an understanding of drive times and the competitive retail landscape.

Assuming a three- to seven-mile radius as the probable consumer base is usually appropriate when evaluating suburban sites because of the spatial separation of competing regional malls; however, this approach underestimates the consumer market for downtown retailing because downtowns routinely draw local patrons from distances far greater. Unlike shopping mall visits, which are convenience-based and influenced by merchandise overlap at competing shopping centers, discretionary visits to downtown areas reflect choices based on lifestyles and attitudes and are less predictable by geography. The range of motivations for visiting downtown is broader than the narrow "need to buy" motivation that explains the vast majority of trips to suburban malls. As a result, downtown trips tend to originate throughout an entire metropolitan area rather than solely from nearby ZIP code areas.

The analytical process described in this case study requires regional telephone research to measure the downtown's annual "penetration" of the host metropolitan area. Two annual performance metrics must be estab-

lished: *reach*, or the percentage of adults who have been downtown for one or more discretionary purposes, and *frequency*, or the number of discretionary visits to downtown. The model described here also requires per capita expenditure inputs that are the results of consumer research in dozens of downtowns with supportable retail offerings. These per capita expenditure figures are dramatically different from assumptions used in traditional shopping center modeling because they reflect casual spending, or shopping as a secondary activity.

The Utilization Rate Model

The utilization rate model was derived specifically to assess the sales capacity for specialty retail and dining and entertainment venues in urban settings. The model provides a consistent process for determining probable sales from known factors (the sizes of key consumer segments) and inputs (usage factors and per capita expenditures) derived from other projects operating in U.S. cities. It represents one approach to urban retail demand analysis.

The model provides a level of discipline that is often absent in a traditional capture rate analysis, and it removes geography as the basis for projecting demand for retail space. The model addresses visitation and probable spending behaviors of the members of downtown's key user segments. Critical input to the model includes

- the size of three key customer segments, described below (overlap between segments is minimal);
- actual or analog expenditures in projects or downtowns similar to the one being analyzed; and
- analog visitation rates for individual customer segments in projects or downtowns similar to the one being analyzed.

The model projects spending for customer segments as follows:

Customer Segment Size × Utilization Rate × Spending = Sales by Customer Segment

Downtown users generally fall into one of three mutually exclusive market segments. These segments form the basis for estimating annual number of person-trips as well as expenditure potential:

- residents of the MSA visiting downtown for discretionary purposes (that is, not work trips) to cultural facilities, sports venues, and other attractions;
- office workers and other employees who visit for work purposes; and
- visitors from outside the MSA (tourists, business travelers, convention delegates, and day visitors who visit for a variety of reasons).

Collectively, these three market segments form the base of potential customers for street retail. The size of each segment is easily discernible using statistics that are available in most communities; each segment's level of interaction with downtown can typically be quantified using a combination of primary and secondary data.

- Estimates of the adult population of the host MSA are available from the U.S. Census Bureau, local planning agencies, and data vendors.
- A count of office workers and other employees is generally available through the municipal economic development agency, state employment commission, or local Chamber of Commerce. Alternatively, periodic employment counts are available from the Census Bureau's County Business Patterns for ZIP codes in the downtown area.
- The annual overnight visitors count can be gleaned from statistics compiled by metropolitan convention and visitors bureaus or state tourism agencies; another estimate of visitor count can be constructed using hotel room counts and occupancy data. The day-trip component of total annual visitation is elusive and is typically estimated by applying a multiplier to the hotel-based visitor count. It should be noted that not all visitors stay in hotels.

The utilization rate model can accommodate additional customer segments such as college students, if appropriate, in a local market.

The model can be used as a tool to assess "untapped spending potential" by current downtown users and to project future sales. Assumptions can also be made regarding changes to key inputs:

- growth in size of individual customer segments;
- changes in annual trip count by patrons visiting downtown for discretionary purposes (changes in frequency of visits);

- increases in the use of the downtown by individual customer segments (increased reach or market penetration); and
- increases in level of expenditure to reflect shifts in merchandising toward greater variety of "shoppers' goods."

Analytical Steps

Stimulating street retailing requires a systematic approach that includes the following analytical steps:

- Identify current downtown users and understand trip motivations, demographic characteristics, and economic effects.
- Quantify aggregate retail and restaurant expenditure potential associated with the current level of activity downtown.
- Calculate supportable retail space based on aggregate expenditure potential, assuming sales productivity that allows for economically viable retail and restaurant operations.
- Compare projected expenditure potential with actual sales (data permitting) to define the magnitude of opportunity and to refine the amount of incremental retail space to be targeted for development.

A merchandising strategy and retail recruitment plan can be implemented based on an understanding of the downtown's usage dynamics, level of retail demand, and amount of supportable square footage.

Market Analysis for Tennessee City

The following case study from a major Tennessee city provides an example of assessing demand for street retail and restaurant uses in a downtown area.

Background

Downtown "Tennessee City" is the region's dominant office employment center and the community focal point for festivals, parades, and community events. The downtown hosts a major performing arts center booked more than 200 nights per year with a variety of shows. Several stage companies offer live theater, and there is a vibrant restaurant scene ranging from pubs to fine dining. It benefits from a growing residential base.

The existing retail base—while accounting for less than 50,000 square feet—features an interesting mix of independent merchants that offer specialty goods such as home furnishings, sporting goods, cards and stationery, and casual clothing.

The once-thriving retail street has numerous vacant and underused storefronts that could be refurbished and returned to retail use. Substantial upgrading of buildings will be necessary for commercial reuse.

Understanding Downtown's Current Users

Downtown retail revenue results from spending of metro-area residents, downtown workers, and visitors from out of town:

- *Metro-area Residents:* Metro-area residents from throughout the Tennessee City metropolitan area visit downtown for a growing variety of reasons other than work. Regional research highlighted that 85 percent of adults in the MSA visit downtown for discretionary purposes, with an average frequency of 18 visits during the preceding year. These visits occurred primarily on evenings and during weekends and were dispersed throughout downtown, yet they form a potential consumer market that is invisible to most retailers. The fact that patrons do not list "shopping" as a primary visit motivator leads many potential retailers to dismiss the potential impact of those patrons; however, the aggregate number of visits they generate makes these patrons a lucrative merchandising opportunity, especially for impulse purchases.
- *Downtown Workers:* The most visible customer segment is Tennessee City's downtown workforce of 26,000 office workers and other employees. Some retailers understand the spending capacity of office workers, while others perceive the "at-work" spending potential to be limited.
- *Out-of-Town Visitors:* Tourists, business travelers, and convention delegates constitute the visitor market. Approximately half of Tennessee City's visitors stay overnight, while half visit only on day trips. The overnight market is divided between hotel users and those who stay in private accommodations. Many visitors patronize sports venues, museums, and attractions in downtown during their stay.

Baseline Estimate

Based on actual customer segment sizes, metro-area resident usage patterns identified in the regional telephone

research, and estimates of spending and use by workers and visitors, the utilization rate model was calibrated to reflect downtown's existing retail and restaurant sales of approximately $45 million (based on city sales tax records).

Inputs to the baseline calibration model included:

- size of each customer segment as provided by local sources;
- total annual sales generated by downtown workers (based on ICSC office worker spending surveys);
- estimated expenditure per visit by metro-area residents and visitors:
  - — $1 average per capita expenditure by metro-area residents is consistent with experience in other downtowns (this average is for all metropolitan residents, whether they visit downtown or not.
  - —$6 average expenditure per capita expenditure by downtown workers was derived from aggregate spending by this segment and annual trip count.
  - — $4 average per capita expenditure per day by visitors is consistent with experience in other downtowns.
- frequency of visit and estimated penetration of visitor market:
  - — 15.3 visits per year by metro-area residents = 85 percent market penetration × 18 visits per year (derived from regional telephone research).
  - — 235 visits per year by downtown workers = number of work visits per year − vacation days and federal holidays.
  - — 10 percent market penetration of visitor segment is consistent with experience in other downtowns and was verified by local visitor studies.
- total food sales and total retail sales volumes (from sales tax data);

Outputs from the baseline calibration model included:

- annual sales volumes generated by metro-area residents, downtown workers, and visitors;
- share of total sales generated by each customer segment;
- estimated annual trip count (person-visits) to downtown Tennessee City.

The baseline model (table 5.2-1) estimates spending by each of the three key customer segments. The model incorporated customer segment sizes, metro-area resident usage patterns identified in regional telephone research, and spending analogs for each segment based on experience in similar downtown settings.

Table 5.2-1 shows estimates of sales dollars and share of sales generated by the three primary customer segments, which collectively generated an estimated 13.4 million person-visits to downtown Tennessee City. Downtown usage highlights from the baseline year included the following:

- Downtown Tennessee City attracted an estimated 13.4 million person-visits for work and discretionary purposes in the baseline year.
- Downtown's 26,000 office workers generated 6.1 million person-trips based on a 235-workday year. The segment generated aggregate annual spending of

Table 5.2-1
Downtown Tennessee City, Utilization Rate Model: Baseline Calibration to Actual Sales

Customer Segment	Segment Size	Annual Utilization	Annual Trips	Expenditure per Visit ($)	Annual Retail & Restaurant Sales ($ Millions)	Share (%)
Metro-area residents	437,950	15.3	6,700,000	1.00	6.70	14.7
Downtown workers	26,000	235	6,110,000	6.00	36.66	80.3
Visitors	5,675,600	0.1	567,560	4.00	2.27	5.0
Overnight	2,837,000	0.1	283,780	4.00	1.13	
Day-trippers	2,837,000	0.1	283,780	4.00	1.13	
Total			13,378,200		45.63	100.0

Table 5.2-2
Downtown Tennessee City, Utilization Rate Model: Baseline Calibration to Actual Sales Capacity (Hypothetical)

Customer Segment	Segment Size	Annual Utilization	Annual Trips	Expenditure per Visit ($)	Retail & Restaurant Sales Capacity ($ Millions)	Share (%)
Metro-area residents	437,950	15.3	6,700,000	5.00	33.50	35.6
Downtown workers	26,000	235	6,100,000	9.00	55.00	58.4
Visitors	5,675,600	0.1	567,560	10.00	5.68	6.0
Overnight	2,837,000	0.1	283,780	10.00	2.84	
Day-trippers	2,837,000	0.1	283,780	10.00	2.84	
Total			**13,378,200**		**94.17**	**100.0**

$36.6 million based on annual spending of $1,400 per worker for food and retail goods during and after the workday.[1] The vast majority of spending by this segment is devoted to food and beverages. Their aggregate spending is the equivalent of $6 per day per worker. Downtown workers accounted for approximately 80 percent of downtown's estimated total sales volume.

- Metro-area residents generated more than 6.7 million visits to downtown Tennessee City last year. Their annual spending there on food and retail goods was estimated at approximately $6.7 million—or one-third of downtown's total sales volume. Spending is currently limited by the narrow assortment of retail goods offered in downtown.
- It is estimated that tourists and meeting attendees generated more than 567,000 visits to downtown Tennessee City in the baseline year, with aggregate spending estimated at $2.3 million. This represented 5 percent of downtown's total annual sales. This impact is based on the assumption that downtown Tennessee City is currently attracting 10 percent of the region's overnight visitors and a comparable share of day-trip visitors. The region attracts more than 2.8 million overnight visitors using hotels and private accommodations. According to the Tennessee City visitor bureau, the estimated number of day-trip visitors from beyond a 50-mile radius equals the number of overnight visitors.

1. ICSC, *Office Worker Retail Spending Patterns.*

Spending Capacity of Downtown Patrons

Downtown's 13.4 million person-trips is comparable to the annual number of shopper visits attracted by some strong regional malls. Regional malls routinely generate sales volumes of $200 million to $400 million or more, with more than 10 million visits by "purposeful" shoppers. Intuitively, then, downtown's current patrons have significantly greater capacity for spending than the amount of dollars they spent in downtown last year. The question is, what is a reasonable expectation of casual spending in a downtown that draws a similar number of annual trip counts?

A more comprehensive merchandise offering is needed to stimulate additional spending and to draw new users to downtown for the primary purpose of shopping. The utilization rate model provides an estimate of the downtown patrons' capacity for spending on recreational shopping, or shopping as a secondary activity versus extensive mall-type shopping for comparison goods.

A sales capacity model was created to quantify the spending that would have been reasonable to expect from downtown's patrons in the baseline year, presuming availability of a broader retail mix. Table 5.2-2 presents the untapped spending potential of downtown's current patrons and demonstrates that a substantially higher level of sales could be achieved by altering downtown's content without drawing additional patrons.

Inputs to the sales capacity model included the following:

- size of each customer segment, as provided by local sources; and

- estimated expenditure per visit by MSA residents, downtown workers, and visitors:
  - — $5 average per capita expenditure by metro-area residents, consistent with analog experience in other downtowns studied previously;
  - — $9 average per capita expenditure by downtown workers, derived from aggregate spending by this segment and annual trip count; and
  - — $10 average per capita expenditure by visitors, consistent with analog experience in other downtowns studied previously.

Frequency of visits and estimated penetration of visitor market are the same as in the baseline model, as are the outputs.

The patrons who generated 13.4 million person-trips and restaurant and retail sales of $45 million in the baseline year had the capacity to spend $94.2 million, had a broader offering of goods been available. Untapped spending by downtown patrons in the baseline year was estimated at more than $48 million—more than the actual level of sales in the baseline year.

As shown in table 5.2-3, the greatest amount of untapped spending is concentrated among metro-area residents, with downtown workers having the second greatest untapped potential. Most of the untapped spending of downtown workers reflects their capacity for additional retail spending, because their food and beverage needs are currently being met.

Downtown's users in the baseline year spent $45.6 million but had the capacity to spend $94.2 million (or more) on retail goods and food and beverages as a secondary activity while in downtown for other purposes. The model does not account for new trips that might occur in response to the addition of enhanced retail merchandising in downtown. In part because of limited merchandise offerings and the absence of a retail and dining focal point, approximately $48.6 million went unspent in downtown Tennessee City each year. This incremental sales volume reflects a fairly conservative quantification of the opportunity facing Tennessee City in the creation and implementation of a retail strategy for downtown.

Table 5.2-3
Estimated Untapped Sales by Customer Segment, Baseline Year ($ Millions)

	Estimated Capacity	Sales Generated	Untapped Spending
Metro-area residents	33.5	6.7	26.8
Downtown workers	55.0	36.6	18.4
Visitors from beyond MSA	5.7	2.3	3.4
Total	94.2	45.6	48.6

Untapped spending potential of $48.6 million would support 138,857 square feet of retail and restaurant space at average sales productivity of $350 per square foot. Even strong regional malls tend to capture only 5 to 15 percent of the expenditure potential within their trade areas. Thus, downtown Tennessee City would not be expected to immediately capture 100 percent of the spending capacity of its patrons. A targeted capture rate of 50 percent would be relatively aggressive and appropriate for the initial stages of a downtown retail strategy. At this level of capture, there is demand for approximately 69,429 square feet of new retail merchandise and restaurants in downtown Tennessee City.

Calculation of Incremental Supportable Square Footage

Spending Capacity, Baseline Year	$94.2 million
Estimated Actual Sales, Baseline Year	$45.6 million
Untapped Potential, Baseline Year	$48.6 million
Assumed Capture Rate	50%
Assumed Sales Capture	$24.3 million
Assumed Sales Productivity	$350 per sq. ft.
Supportable Square Footage	69,429 sq. ft.

Future Year Supportable Square Footage—Market Growth Only

The utilization rate model can accommodate several types of changes in assumption:

- changes in segment size;
- changes in utilization rate (that is, shifts in reach or frequency of use of downtown by customer segments); and
- changes in level of per capita expenditure by customer segments.

Table 5.2-4
Downtown Tennessee City, Utilization Rate Model: Projection Year Sales Capacity (Hypothetical)

Customer Segment	Segment Size (Millions)	Annual Utilization	Annual Trips (Millions)	Expenditure per Visit ($)	Retail & Restaurant Sales Capacity ($ Millions)	Share (%)
Metro-area residents	0.47	15.3	7.15	5.00	35.73	35.3
Downtown workers	0.03	235	6.58	9.00	59.22	58.6
Visitors	6.20	0.1	0.62	10.00	6.20	6.1
Overnight	3.00	0.1	0.30	10.00	3.00	
Day-trippers	3.20	0.1	0.32	10.00	3.20	
Total			13.38		101.15	100.0

Table 5.2-4 demonstrates the incremental increase in supportable square footage over the baseline year caused by changes only in the sizes of the three customer segments (that is, market growth).

The annual trip count for downtown Tennessee City is likely to increase as a result of natural growth of its key customer segments. Incremental supportable square footage has been calculated for a future year base d solely upon the projected increase in market growth (that is, no changes in assumed average per capita expenditure or number of downtown visits per adult).

In the projection year, Tennessee City's users will have projected aggregate spending capacity of $101.1 million. This is an increase of $55.5 million in untapped potential versus actual sales in the baseline year. In the projection year, downtown Tennessee City's projected user base could support an additional 9,857 square feet of retail and restaurant space, assuming 50 percent capture and sales productivity of $350 per square foot. This supportable square footage is in addition to the supportable square footage identified in the baseline year.

Projection Year, Calculation of Incremental Supportable Square Footage

Spending Capacity, Baseline Year	$94.2 million
Spending Capacity, Projection Year	$101.1 million
Estimated Actual Sales, Baseline Year	$45.6 million
Untapped Potential, Projection Year	$55.5 million
Untapped Potential, Baseline Year	$48.6 million
Untapped Potential, Net Increase	$6.9 million
Assumed Capture Rate	50%
Assumed Sales Capture	$3,450,000
Assumed Sales Productivity	$350 per sq. ft.
Incremental Supportable Square Footage	9,857 sq. ft.

Long-Term Supportable Square Footage Goals—Compound Effect of Market Growth and Changes in Use or Spending Levels

Two scenarios were created in order to generate supportable square footage projections as long-term illustrative goals:

- *Scenario 1 (see table 5.2-5):* In addition to growth in segment sizes (that is, market growth), changes were assumed in Tennessee City's usage dynamics (segment penetration and frequency of visits) to reflect greater use of the downtown in the future. In this set of projections, no changes were assumed in the level of spending. The increase in the amount of supportable square footage reflects the compound effect of changes in usage dynamics and segment sizes. (Segment penetration rates and utilization frequencies remain on the lower end of the range in similar urban settings.)
- *Scenario 2 (see table 5.2-6):* More aggressive assumptions for Tennessee City's usage dynamics (segment penetration, frequency of visits) and increases in per capita spending levels were combined with increases in segment sizes (market growth) to illustrate the opportunity associated with broad changes in

the use of downtown. (Customer segment penetration rates, utilization frequencies, and spending levels remain within the range of precedent in similar urban settings and are considered realistic goals for downtown in light of its ongoing evolution into the dominant central gathering place for the region.)

Scenario 1 illustrates the scale of opportunity that can be created by modest increases in use of downtown Tennessee City by two of the three customer segments. Note that the number of annual downtown person-trips has grown to 16.2 million. This analysis can be used as a goal-setting exercise for promoters of downtown.

Scenario 2 illustrates the compound effect of increased use and increased spending on the amount of new retail space that can be supported. Increased per capita spending is a function of increased exposure of downtown users to retail goods while those users are downtown, as well as more purchasing in response to a broadening of the merchandise offered. Note, too, that the number of annual downtown person-trips has grown to 16.2 million.

Table 5.2-5
Downtown Tennessee City, Utilization Rate Model: Long-Term Illustrative Sales Potential, Scenario 1 (Market Growth and Changes in Utilization Only)

Customer Segment	Segment Size (Millions)	Annual Utilization	Annual Trips (Millions)	Expenditure per Visit ($)	Retail & Restaurant Sales Capacity ($ Millions)	Share (%)
Metro-area residents	0.47	18.0	8.41	5.00	42.03	37.0
Downtown workers	0.03	235	6.58	9.00	59.22	52.2
Visitors	6.20	0.20	1.23	10.00	12.30	10.8
Overnight	3.00	0.25	0.75	10.00	7.50	
Day-trippers	3.20	0.15	0.48	10.00	4.80	
Total			16.22		113.55	100.0

Table 5.2-6
Downtown Tennessee City, Utilization Rate Model: Long-Term Illustrative Sales Potential, Scenario 2 (Market Growth Plus Changes in Utilization Rate and per Capita Spending)

Customer Segment	Segment Size (Millions)	Annual Utilization	Annual Trips (Millions)	Expenditure per Visit ($)	Retail & Restaurant Sales Capacity ($ Millions)	Share (%)
Metro-area residents	0.47	18.0	8.41	8.00	67.25	45.2
Downtown Workers	0.03	235	6.58	9.00	59.22	39.8
Visitors	6.20	0.20	1.23	18.00	22.20	15.0
Overnight	3.00	0.25	0.75	20.00	15.00	
Day-trippers	3.20	0.15	0.48	15.00	7.20	
Total			16.22		148.67	100.0

Table 5.2-7
Incremental Supportable Square Footage, Long-Term Illustrative Sales Potential

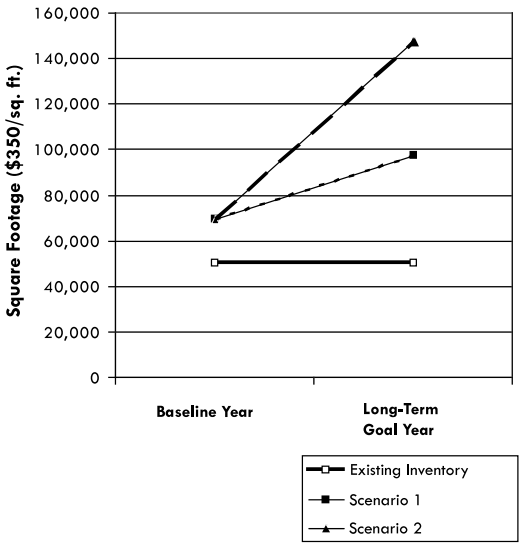
	Scenario 1	Scenario 2
Spending capacity, long-term goal year	$113.55 million	$148.67 million
Estimated actual sales, baseline year	$45.6 million	$45.6 million
Untapped potential, long-term goal year	$68.0 million	$103.07 million
Assumed capture rate	50%	50%
Assumed sales capture	$34.0 million	$51.6 million
Assumed sales productivity	$350/sq. ft.	$350/sq. ft.
Supportable square footage over existing retail space in baseline year	97,142 sq. ft.	147,243 sq. ft.

Summary

In the baseline year, there was sufficient untapped potential associated with current users to support an additional 69,714 square feet of retail and restaurant space. In the long-term goal year, downtown would be capable of supporting an additional 97,357 to 147,546 square feet of retail and restaurant space, assuming market growth as well as increases in use or per capita expenditure (see table 5.2-7). These projected levels of supportable space represent net increases of approximately 27,600 to 77,800 square feet over the amount of space identified as immediately supportable in the baseline year. Figure 5.2-1 depicts the amount of incremental supportable square footage that can be added to the existing inventory in the baseline year, for two scenarios as described previously.

The utilization rate model is a tool, used to quantify the amount of retail space that downtown's current users can support. Once the amount of supportable retail space has been identified, work can begin in earnest on the creation of a retail development strategy. Typically, such a strategy consists of a merchandising strategy and a retail recruitment program. A comprehensive strategy should also address key location opportunities and include an evaluation of hurdles to be overcome. Comprehensive strategies may also feature recommendations for public sector initiatives to stimulate private sector investment.

Figure 5.2-1
Supportable Retail and Restaurant Square Footage



Comcast Center, Philadelphia.
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Chapter 6

Office and Industrial

Industrial buildings often share physical characteristics and location attributes with low-rise office space, and similar methods are used to analyze market demand for the two types of product. "Flex" buildings, which combine office space with storage and light assembly, can be counted in inventories of either office or industrial space, depending on the extent of office finishes in the space. Potential users of these types of spaces would not necessarily limit their search to a single type of building, so in that respect, it makes sense to examine market analysis methods for the two types together.

Preparing a market study for office or industrial buildings requires an understanding of the local business climate. The demand analysis focuses on characteristics of the economic base: Which industries dominate the metropolitan economy? Are they expanding, and if so, what are their needs? Are new types of businesses entering the area, and if so, what is attracting them? Which locations within the metropolitan area are best suited for particular business activities? For individual buildings, what characteristics will appeal to different user businesses? And will the users find the labor force they need?

According to Colliers International, the 57 U.S. office markets that they monitor provided nearly 4.8 billion square feet of office space in 2007 and 11.9 billion square feet of industrial buildings.[1] New supply in 2007 alone exceeded 181 million square feet in industrial properties and 80 million square feet in office buildings. Although these quantities fluctuate considerably from year to year, the sheer volume of new properties (let alone investment transactions in existing buildings) creates a need for careful analysis of market conditions.

Characteristics of Office Buildings

Office buildings can be found in a wide range of sizes, locations, and quality. They can vary from less than 10,000 square feet to millions of square feet. Downtown construction projects often comprise only one very large building, but in the suburbs, developers may offer multiple buildings in landscaped office parks with common amenities. However, the distinction between downtown and suburban development patterns is blurring. Increasingly, in both locations, office space is part of mixed-use developments that may include retail, residential, hotel, entertainment, and civic uses. Office space can be categorized according to several factors:

- class;
- location;
- size and flexibility;
- use and ownership; and
- features and amenities.

Class

Class is measured by evaluating the space's age, location, quality of finishes, building systems, amenities, lease rates, and tenant profile. Office space inventories generally segment buildings as

Class A, B, or C. Class A space includes professionally managed buildings that have excellent location and access and prestigious corporate and professional tenants. Increasingly, they are characterized by environmentally sensitive or "green" building materials and operational systems that save on energy and water costs, and also provide a more healthy work environment for employees. Most, but not all, Class A buildings are less than ten years old or have been extensively renovated to bring them up to current high standards. Building materials and amenities are high quality, and the property conveys a high-status image for its tenants. Class B buildings have good locations, management, and construction, and tenant standards are high. Although they are not new, these properties usually show very little deterioration, but they may lack state-of-the-art HVAC, lighting, or mechanical systems. Class C buildings are substantially older than Class A or Class B buildings, with inferior locations or conditions.

Tenants filter from Class B to Class A and from Class C to Class B as their businesses prosper or their space needs change. In some cases, Class B properties can be renovated to Class A standards, if they can provide the technological features that new buildings offer. However, such extensive renovations are often not cost-effective. Most large, new buildings are Class A, but new small structures with few amenities can be Class B from the outset. Definitions vary, but age, size, rent level, location, building materials, operating systems, and amenities are all considerations when classifying office properties.

Location

Downtowns or central business districts (CBDs) are usually characterized by tall office buildings and high rents. Major business and professional service providers in law, accounting, architecture, engineering, and consulting find downtown locations to be attractive, as do many corporate headquarters. Government offices are often concentrated in CBDs, but rarely in Class A space. Although downtown locations once dominated office inventories, Colliers International indicates that two-thirds of multitenant office space is now located in the suburbs. Between 2000 and 2007, suburban space increased by 28 percent while downtown square footage grew only 14 percent, as shown in figure 6-1.

Outside the CBD, but still in the city, are secondary office nodes that cluster near hospitals, universities, or other business magnets. And many mature suburban communities, especially those located near transit, have their own concentrated "downtown" office cores that can rival the CBD. Other suburban office districts are more linear,

Downtown Office Market Share Is Dropping

"A review of central business district (CBD) inventories in 30 major U.S. cities shows that nearly three-quarters of them experienced a net increase in office space between 2001 and 2007, according to reports from Integra Realty Resources.... However, the office markets in almost all of the 30 central business districts were continuing to lose market share in their metropolitan areas.... According to Integra figures, the average metropolitan market share of these 30 CBDs dropped from 31.8 percent in 2001 to 28.4 percent in 2007. Boston's CBD share fell from 48 percent to 35 percent; Minneapolis's from 46 percent to 36 percent; and Philadelphia's from 42 percent to 29 percent. These trends in the office market contrast with trends in downtown population....The reasons vary as to why downtown office markets have not performed as well as residential markets in capturing a larger share of metropolitan growth:

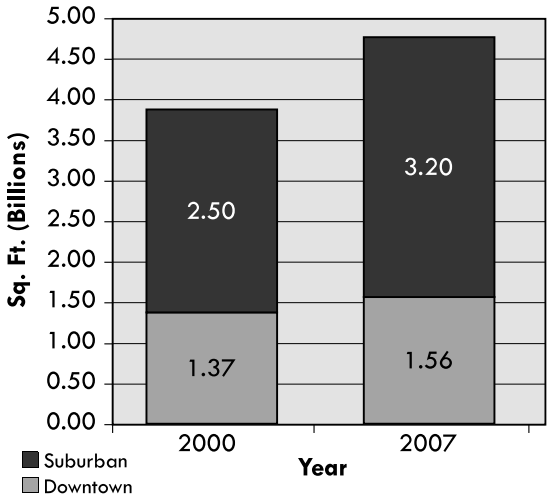
- Some older downtown office space has been converted to residential use.
- It remains easier and less expensive to build new office space in the suburbs rather than downtown.
- Companies typically locate near areas where top executives live, and few CEOs have moved downtown.
- Long-ter m office leases tend to keep bigger companies in place and unable to move, so that office relocations can lag behind market trends for several years.

However, as interest in urban lifestyles and environments continues to mushroom, there is hope that, in the future, downtown office markets can better hold their metropolitan shares."

Source: Jeffrey Spivak, "The State of Downtown Office Markets," *Urban Land*, July 2008, page 144.

Figure 6-1

Change in U.S. Office Space Inventory by Location



Source: Colliers International, *U. S. Real Estate Review 2008*, p. 3.

typically lining a major highway corridor and having larger concentrations at interchanges.

The inventory of high-quality office space has expanded in suburban downtowns since the mid-1990s. New space has been added as part of mixed-use, transit-oriented projects. In more typical car-oriented suburbs, much of the office space inventory is located in centrally managed office parks or in mixed-use business parks that combine office, light industrial, hotel, and restaurant space. Figure 6-2 shows the ten largest suburban Class A markets, based on square footage of building inventory.

Small suburban office buildings can be found along major arterials, adjacent to retail centers and multifamily residential complexes. These properties appeal to a diverse group of users. Some tenants are branch offices of corporations, while others provide services to small businesses and households in nearby communities (insurance agents, real estate agents, banks, medical practitioners, small law offices, mortgage companies, etc.).

Size and Flexibility

Office buildings generally fall into three size categories: high rise (16 stories or more), mid rise (four to 15 stories), and low rise (one to three stories). Floor plate size is an important consideration, with some tenants requiring large floor plates so that they can occupy fewer levels, and others preferring smaller floor plates so that workers have more natural light. Floor space flexibility is important as more tenants opt for open-floor layouts and more efficient use of space. Interior columns or odd angles that make it difficult to lay out space will render a building less desirable. Office floor plates in new Class A buildings generally range from 18,000 to 30,000 square feet.

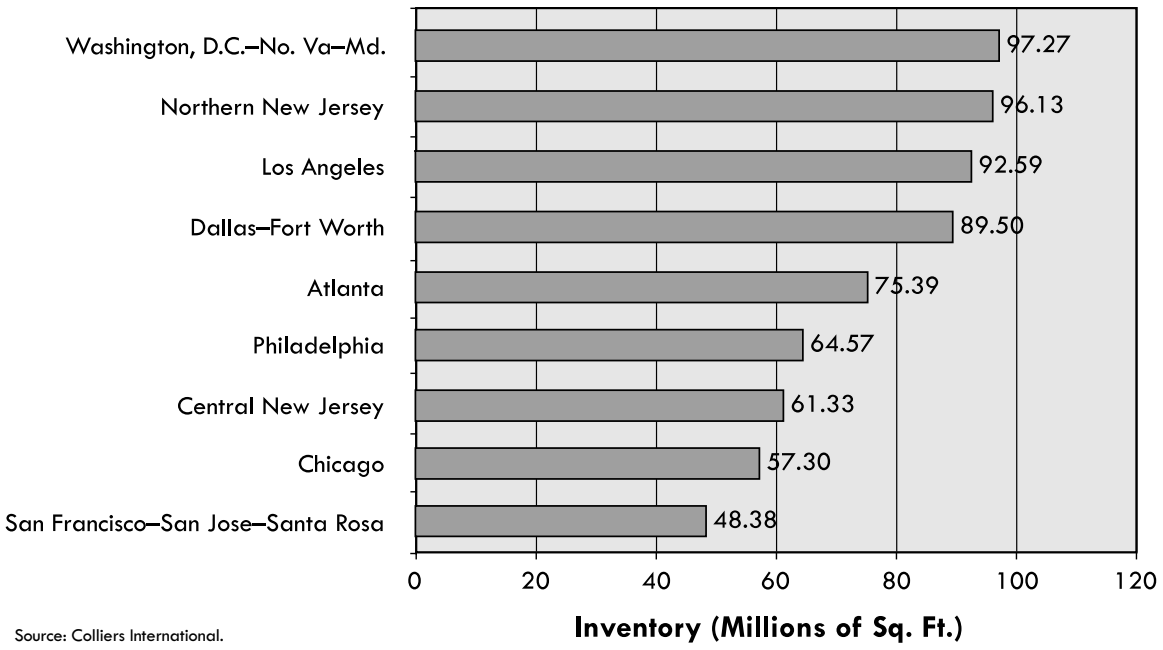
Use and Ownership

A majority of office buildings are occupied by multiple tenants who lease their space. However, a relatively small number of office condominiums also exist, primarily in low-rise, multibuilding properties in outlying suburbs. Office condominium tenants tend to be professional practices (physicians, attorneys, accountants) and other small, locally owned or franchise businesses. Some office buildings are configured to appeal to distinct market niches: medical and laboratory space, university-affiliated institutes, nonprofits, financial services, or back-office functions (data processing, customer service, order taking, etc.). Multitenant office buildings are owned by real estate investment trusts, pension funds, partnerships, family businesses, and individuals. A building constructed for a specific tenant is called *built to suit*, whereas a building constructed for unknown tenants is a *speculative* or *spec* building.

Corporations often occupy an entire office building; they may own it or lease it from an investor-owner. However, single-user buildings are generally not included in a market's office space inventory until they are vacated and marketed for multitenant occupancy. Documenting the extent of owner occupancy is made difficult by the widespread use of sale-leasebacks, whereby a corporation sells one or more real estate assets (usually to an institutional investor such as a pension fund or private investor group), and then leases them back from the new owner. The corporation frees up capital by removing expensive assets from its balance sheet, even though it must still pay real estate taxes, insurance, and maintenance costs. A major reason to lease is the tax benefit of being able to list the rent as an expense. The new owner gets high-quality property leased to a credit tenant, usually for a period of at

Figure 6-2

Largest Markets: Class A Suburban Office Space, Third Quarter 2008



Source: Colliers International.

least ten years. Sale-leasebacks are also popular with owners of manufacturing and warehouse facilities.

Features and Amenities

The availability and cost of parking, and accessibility to mass transit in urban cores are important features when marketing office buildings. Auto-oriented suburban locations generally provide surface parking lots; spaces are usually available at no cost to users. In older suburbs with high demand for office space, sites are being redeveloped to include decked parking. Parking ratios that worked in the 1980s—three spaces per thousand square feet of office use—are no longer sufficient. As floor space per worker shrinks (in an effort to reduce costs by making more efficient use of rentable space), suburban tenants want five or six parking spaces per thousand square feet of rentable area. Businesses that operate multiple shifts need to feel comfortable that the available parking is sufficient to accommodate cars coming in and going out when shifts change. Shuttles to nearby transit stations are increasingly common, making it easier for employees to leave their cars at home. In dense downtowns, many new buildings provide no on-site parking or an underground garage with limited, expensive parking; employer-subsidized transit cards encourage workers to use buses and trains. Those who need to drive must park in public or privately operated garages.

The need for high-capacity computer and voice-mail systems is another key feature. All professional and business service firms want high-speed Internet, flexible telecommunications systems, and both on- and off-site storage capabilities.

Security is paramount for government agencies and many private tenants, both in the lobby and at the entrance to individual office spaces. New buildings are equipped with key-card entry systems or coded keypads. Larger buildings employ doormen or provide a staffed security desk; smaller ones use voice intercoms.

Of late, energy-saving and environmentally sensitive "green" features are considered essential in a Class A office building. Tenants are attracted to building features that reduce water and electricity use (thereby lowering the utility bills that are passed through to them) and create a healthy

workplace for their employees. Indoor air quality, temperature and noise controls, and use of nontoxic building materials are as important as lavish lobbies, if not more so. Tenants expect their landlords to provide recycling services.

Developers of new buildings are seeking Leadership in Energy and Environmental Design (LEED) ratings, paying attention to site planning that maximizes natural light, installing windows that actually open, using recycled carpet, and devising underfloor heating and air conditioning systems.[2] Existing buildings are being retrofitted with conservation in mind. Improvements include using nontoxic paint, replacing traditional lighting with low energy-use types, and installing better controls for HVAC and interior lighting systems. Studies have shown that these improvements enhance worker productivity and reduce illness-related absenteeism. Such changes can be achieved with little additional cost to building developers and owners, particularly if the building is relatively new. Some suburban properties are assigning close-in parking spaces to employees who drive hybrid vehicles or carpool.

A building's architecture and the quality of finishes in public areas will be important in the selection of a location by image-sensitive tenants. Corporations want to strike a balance between high quality and cost consciousness, but the balance depends on the kind of image they are trying to convey. Some tenants believe that the presence of on-site health clubs, restaurants, and retail outlets aids in attracting and retaining employees, and therefore look only at spaces that have these facilities in the building or nearby. Yet others value proximity to daycare centers, which make it possible for employees to visit their young children during lunch or break times, helping reduce commuting time and stress. As more workers become independent contractors, a growing trend is to build executive office space with conference rooms, training space, and health club facilities targeted toward sole practitioners and single-person branch offices.

Characteristics of Industrial and Warehouse Buildings

The line between office and industrial space has blurred, because so many businesses today require flexible space to accommodate a wider range of activities. Industrial building types include a continuum from research and development (R&D) facilities, which can closely resemble single-story office space, through unfinished warehouse space. Hybrid space mixes are characteristic of office and industrial properties and do not fall neatly into one category of use. Newer industrial buildings tend to be built in business parks, most of which are dominated by warehousing and distribution activities rather than production. Warehousing and distribution functions are characterized by relatively low ratios of employment-to-building square footage, an important factor to note when selecting market analysis methods.

Building Types

Industrial space is classified in four broad categories: manufacturing (both light and heavy); warehouse and distribution; flex space (including combined offices and showrooms); and R&D facilities. Some observers would also classify freight forwarding and truck terminals as industrial space, although they may have little in the way of building space. Each of these categories is very different from the others; a market study for R&D space would not devote attention to the warehouse market, whereas a study for a Class A office building would also look at trends in Class B or C spaces. Market studies for flex space often contain information on nearby low-rise office buildings.

Ownership and Management

Most new factory buildings are designed and built to user specifications and are owned by corporations. Laboratories and warehouse facilities may be single-user or multitenant, speculative or built to suit. Although large retail store chains still tend to operate their own warehouses, multitenant bulk warehouses run by third-party logistics management are very common.

Design Features

Warehouse and distribution facilities are further distinguished by the proportion of space used for office functions (as opposed to package assembly, shipping, or storage). Small businesses often occupy flex space in which a high proportion of the space has office finishes (25 percent or more). Rents per square foot for high-finish industrial space will be

much higher than for bulk warehouses, where less than 10 percent of the square footage is used for offices. Industrial properties are distinguished by eight key features:[3]

- building size;
- site coverage;
- loading capability;
- parking for cars and trailers;
- ceiling heights;
- space buildout and extent of office-quality finishes;
- power; and
- floor load and floor levelness.

Table 6-1 identifies the many types of warehouse buildings and their characteristics. Industrial space inventories should consider building uses as well as their physical attributes when considering how to count individual properties.

Because industrial space is low rise and much of it is unfinished, warehouse buildings take less time to build than office structures do. As a result, smaller warehouse markets can quickly become imbalanced. Yet despite the relative ease of constructing bulk industrial space, the warehouse property market has traditionally been less volatile than the office market. Rents and occupancy will experience slow but steady increases during periods of economic expansion, and modest declines when recessions are underway.

Because of greater automation in warehousing activities, today's warehouse buildings are very different from those built in the past:

- Buildings with 100,000 square feet or more are common; a 300,000-square-foot warehouse is not unusual at all. Warehouses at logistics hubs (where containers move from ship to train and truck or from train to truck) sometimes average 1 million square feet. Businesses that do not handle perishable items are moving to fewer but larger warehouse buildings.
- New "high cube" structures have ceilings at least 24 feet tall, with 32 to 36 feet the current norm. Some are as tall as 60 feet. High ceilings require more costly, high-end racking systems, sprinklers, and sophisticated lighting systems.
- Technological capabilities are increasingly important; storage and distribution are now highly automated operations governed by the principles of just-in-time inventory control.
- Highly durable concrete floors are being installed to accommodate taller stacking systems and heavier pallets. In high-bay buildings, these floors are more expensive to build because the surface needs to be precisely level, so materials that are stacked high remain stable.
- Warehouses have more truck docks, essentially lining the two long sides of buildings (a million square-foot-distribution center will be 500 feet wide and 2,000 feet long), allowing simultaneous loading and unloading ("cross-docking"). At one time, the norm was one dock door per 10,000 square feet of warehouse space. New buildings now are providing one dock door per 5,000 square feet.
- Site plans now provide for wider turning radii and longer parking bays to accommodate bigger trucks.
- Users may require both high docks and drive-in bays, although the latter are more common in flex (office/warehouse or office/showroom) buildings.

These new design standards might suggest that much of the existing warehouse inventory is obsolete. However, the space requirements listed here reflect the needs of large national and multinational firms. Local businesses, which often combine light assembly with distribution and storage functions in one facility, do not require (and do not want to pay for) state-of-the-art facilities. However, a flexible facility that can be expanded or reconfigured easily to accommodate tenant expansion will be preferable, for both investors and users.

Manufacturing and laboratory space is usually designed to meet user specifications. The customized nature of each facility poses problems when tenants move out or owners decide to shut down operations. Because of the high cost of retrofitting factory or high-tech buildings for new users, it takes longer to absorb vacant manufacturing or R&D space than warehouse space.

Supermarkets and the food service industry rely on smaller refrigerated warehouse space. In contrast to other warehouses serving retail stores and their online operations, food-related businesses need to be close to their customers.

Table 6-1
Characteristics of Warehouse and Distribution Buildings

Type	Size (Sq. Ft.)	Office Finish	Ceiling Height	Dock Ratio[e]	Cooler/Freezer (% of Space)
Regional warehouses[a]	Up to 100,000	Up to 25% (if multitenant)	18–24 feet	1:5,000–15,000	Up to 5%
Bulk warehouses[b]	Over 100,000; some as large as 1 million	Up to 10%	20 feet or more; newest are 36 feet	1:5,000–10,000	Up to 5%
Heavy distribution[c]	Over 100,000	Below 5%	24 feet or more	Below 1:5,000	None
Refrigerated distribution	Any size	Up to 15%	20 feet or more	1:7,000–10,000	Over 25%
Rack-supported warehouse[d]	Any size	Below 5%	60 feet or more	1:5,000 in the shipping area	None

Source: Johannson L. Yap and Rene M. Circ, *Guide to Classifying Industrial Properties*, second edition, ULI–the Urban Land Institute, 2003, p. 16.
a. Single or multitenant, may include light assembly functions.
b. Designed to store large quantities of goods for short or long periods. Generally have insufficient power to be used for manufacturing. High ceilings; emphasis on high docks rather than drive-in doors. Site coverage up to 50 percent. Minimum 6-inch floor thickness.
c. Docks are present along at least two walls. Site coverage of 30 to 40 percent. Requires floors to be both thick and level. Can have two-story office space.
d. Separate storage and shipping areas. Storage area has high ceilings. Generally built to suit.
e. Number of docks per square feet of building.

Specialized Markets

Metropolitan areas often specialize in different types of industrial space. For example, San Jose, Boston, Austin, San Diego, northern and central New Jersey, Seattle, and Minneapolis are well known as centers for high-tech research and laboratory space. Atlanta, Cincinnati, Columbus, Indianapolis, Kansas City, and Sacramento attract warehousing because of their locations at the junction of two or more interstate highway routes. Container shipments at the ports of Los Angeles/Long Beach, New York/Newark, Oakland, Seattle/Tacoma, Jacksonville, Charleston, Savannah, and Miami create strong demand for space to handle both imports and exports. The transfer of containers from rail to truck creates demand for space in midcontinent locations such as Chicago, Dallas, Memphis, and Kansas City. The presence of air logistics companies UPS and FedEx, with hubs in Louisville and Memphis, respectively, has created demand for space in those markets. Manufacturing space is concentrated in both large and small metropolitan areas in the southeast and the Midwest.

Using Office and Industrial Market Studies

As with other property types, office and industrial market studies can serve a variety of needs:

- Developers want insight into whether current conditions justify new construction and assistance in determining the types of spaces to build. They need input on current and future rent trends, likely vacancy rates, and absorption for their financial models.
- Owners of office buildings may commission a market study before embarking on a major renovation program or deciding whether the asset should be sold and, if so, how to price it.
- Owners monitor markets to see how they respond to major additions to supply or to changes in demand (as when a major corporation vacates its space).
- Potential buyers use studies to assist in making purchase decisions, soliciting equity investors, and obtaining financing.

- Corporations that are considering moving their corporate or regional headquarters conduct office market screening to identify suitable locations; they do the same when opening a new plant or distribution facility.
- Tenants use market data to compare the terms offered by different landlords.
- Economic development officials commission market studies to determine competitiveness, to identify potential development sites, and to help them decide whether to offer incentives to prospective developers.

Preparing an Office or Industrial Market Study

Market studies for commercial properties follow a similar format to that used in residential or retail reports, with a few notable exceptions. Demand depends on employment growth, not household demographics, and the need to replace obsolete space. Net absorption is the key indicator of effective demand. As with all property types, attention must be given to supply trends, including construction activity, occupancy rates, and rent growth.

Defining the Market Area

Identification of the market area for commercial real estate is less subjective than for residential or retail development. In many cases, generally accepted development corridors or nodes can be used as the market area for the study. These local submarkets are commonly used by brokerage companies and potential users, as well.

The exact extent of the competitive market area for a proposed office project depends on many factors:

- the location of buildings of similar size, age, and quality;
- street and road patterns in the area surrounding the building;
- proximity to mass transit, major metropolitan highways, and sometimes airports;
- commute times from residential areas;
- proximity to other facilities relevant to target businesses, such as universities or other institutions;
- jurisdictional boundaries;
- for industrial property, proximity to airports, rail lines, or interstate highways;
- physical barriers to access; and
- the image and quality of nearby land uses.

Office users tend to cluster in downtowns and along suburban highways, although smaller, specialized submarkets may blossom around universities or major medical centers. The market area for a downtown office building may encompass only a few blocks surrounding the building, whereas the market area for a suburban office project may encompass several suburban nodes or edge cities. For both office and industrial properties, a submarket usually includes more than one highway interchange.

Submarkets can serve distinct tenant niches. For example:

- In Manhattan, market analysts generally refer to the downtown, midtown south, and midtown submarkets. In the past, these areas catered to different types of tenants: downtown buildings were oriented to financial services firms and government offices; midtown south buildings to creative, knowledge-based industries and companies engaged in the apparel industry; and midtown buildings to law firms, accountants, public relations, and real estate companies. These distinctions began to blur in the 1990s, yet the submarket definitions remain largely unchanged.
- In the suburbs, there is usually an office submarket near an airport; it appeals to companies with a traveling workforce.
- An office building that will be located next to a transit station might be more competitive with buildings located at other stations than with buildings in the same submarket that are beyond walking distance from the station. A definition of the market area for such a building would have to take that possibility into account.

Because shipping is usually a key activity at industrial properties, industrial sites are more transportation-driven than office sites. The market area for an industrial building might include all the business parks surrounding an airport, or a commercial corridor along a rail yard. Industrial users cluster near airports, ports, rail freight yards, beltways around a metropolitan area, or points where interstate highways come together. An R&D complex might depend on proximity to a university or other research center. Traditionally, access to sup-

CenterPoint Intermodal Center, in Elwood, Illinois, has 8 million square feet of warehouse space in eight structures. © *CenterPoint Properties*

pliers and delivery destinations has been more important for industrial users than access to workers, but this is slowly changing. Because industrial properties can be highly specialized, it is sometimes necessary to broaden the market area so that truly competitive product is included in the research effort.

Site Evaluation

A parcel proposed for a stand-alone office or industrial building—or for a business park—will need to be carefully examined for its suitability. A team of engineering and environmental consultants must determine the site's physical suitability for the proposed development, evaluating utility capacity (and expansion potential), soil conditions, and groundwater issues early in the development process. Land planners determine site and lot layout requirements, and prepare preliminary designs to see whether any variances will be needed. A site's topography plays an important role in project feasibility. For example, hilly sites may require extensive grading, which increases construction costs, but they may also provide excellent opportunities for tuck-under parking, which requires less excavation on a hilly site. In the case of business parks or industrial buildings, it is also important to look at the size, dimensions, and shape of a land parcel, which will affect the ability of trucks to maneuver inside the park or its individual parcels.

The market analyst gets involved at different points in the planning process. A developer who is unfamiliar with local market conditions may commission a preliminary market overview before hiring site planners and engineers, then proceed with detailed site studies only if there is a likelihood of market support for the project. The market analyst is often asked to look at preliminary site plans and building designs to see if they will be attractive to potential space users. Successful projects benefit from give-and-take between market analysts and the design team.

A market study will include a thorough evaluation of the site's advantages and drawbacks. The project's location directly affects the rent and occupancy levels it can achieve. Even office buildings located relatively near each other can experience significant location-based differences in rent and occupancy levels. As noted, a building within walking distance of a mass transit station, for example, may be able to obtain substantially higher rents than buildings a half mile away. Buildings with highway visibility can command higher rents than those without it. Land prices can reflect these large differences in site value. Developers who choose sites based on price alone can find themselves unable to compete in the market, even at lower rents.

Suburban office buildings gain a marketing edge when they are located close to freeways or roads that feed into the regional traffic system. Parcels located on prime highways may have great visibility, but they may not be accessible from those highways. Access for parcels located on major highways or frontage roads may be limited to side streets or even rear streets. The location, number, and arrangement of curb cuts into the parking lot can significantly affect the ease of access to a suburban office building. However, good road access is not the sole determinant of success for a suburban property. Proximity to restaurants, shopping areas, and health clubs generates higher rents and better leasing. These amenities are common in downtown submarkets; freestanding buildings in suburban markets may not be so fortunate. Of late, suburban locations are more often able to provide urban-style amenities, as more town centers and other kinds of mixed-use developments come on line.

Demand for Office Space

The need for additional office space is primarily a function of employment growth in industries and occupations that use offices. Such growth can occur when new businesses enter the market or when existing businesses expand. Space design standards then determine how many square feet of office space are allocated for each new worker; these standards vary among industries and among occupations within industries. Current usage suggests an average of 175 to 200 square feet per employee for private businesses, allowing more for corporate headquarters and prestigious law or consulting firms, and less for government buildings, call centers, or customer service operations. Over time, the amount of space per employee has been declining. However, tenants often lease more space than they actually need during a booming market, hoping to lock in space for future expansion at current rents.

Space standards evolve with technology, workplace culture, and corporate employment policies. For example, some companies have reduced their need for office space by permitting at least a portion of their workforce to share jobs, telecommute, or work during evening or night shifts. Some consulting and sales organizations have experimented with office "hoteling"—an area of the office is set aside and equipped for staff members who spend most of their time on the road and do not need a permanent space, but this arrangement was often less successful than expected. Many businesses have rearranged space to provide more common space for team projects and fewer private office enclosures for all but their top executives, also a strategy that has had mixed results.

Using Employment Data

A study by the NAR estimated that 41.5 percent of employed people in the United States worked in offices in 2004, mostly in the finance, professional and business services, and information sectors.[4] Using employment and occupation projections from the U.S. Department of Labor, the NAR concluded that this share would not change significantly by 2014, although the absolute number of office jobs would increase.

In local markets, the character and composition of the local economy greatly influences the share of total employment that is "office-prone." According to the NAR report, more than 96 percent of workers in the finance and insurance industries occupied office space, in contrast to only 7.4 percent of workers in hotels and food services, as seen in table 6-2.

Although the NAICS groups on the left side of table 6-2 have the highest percentage of office jobs in their workforce, all industries have at least some employees who use office space. Within the broad categories shown in the table, considerable variation can occur in the need for office space. For example, NAICS code 51 (Information) includes the motion picture industry, where only about one in four employees work in office occupations; however, this NAICS designation also includes the software development industry, where 95 percent of

Table 6-2

Office Jobs as a Share of Total Employment by Industry, 2004 (Two-Digit NAICS Codes)

Top Five	Share of Workers Occupying Office Space (%)
Finance and Insurance	96.3
Professional Services	89.0
Management	83.9
Information	67.3
Wholesale Trade	58.8

Bottom Five	Share of Workers Occupying Office Space (%)
Agriculture	26.2
Retail Trade	23.6
Construction	20.1
Arts and Entertainment	17.5
Accommodations and Food Service	7.4

Source: John Burns and John McDonald, "Who Are Your Future Tenants: Office Employment in the United States, 2004–2014," prepared for the National Association of Realtors, January 2007.

employees work in an office. Similarly, less than half of all workers in Health Care and Social Assistance (NAICS 62) are in office occupations; the ratios are even lower for workers in nursing homes, home health, or child care agencies.

Table 6-3 shows nationwide growth in selected office-prone NAICS codes from 2001 through 2007. As the table illustrates, employment growth in industries that have a high share of office jobs has not been especially strong, even during a period of economic expansion. Even so, construction activity has continued. As many economists point out, several negative factors affect office-prone employment:

- the movement of customer service and call center jobs overseas;
- corporate consolidations in key office-using industries (especially banking and insurance);
- greater workforce productivity (thanks to new technology, which allows businesses to meet their targets with fewer employees); and
- changes in the growth and composition of the labor force (especially for women, whose labor force participation rates have stabilized after decades of strong growth).

When preparing local projections of office space needs, the market analyst must obtain detailed employment estimates and projections. Chapter 3 discusses how to find employment data by industry and how to interpret the statistics. Occupational data are also helpful in distinguishing personnel who work in the field from those who work in the office. Thanks to the development of sophisticated GIS systems, it is possible for office market analysts to estimate current levels of office-prone employment in a given submarket. It will usually be necessary to purchase these data from a demographic data vendor, whose estimates are based on geocoded data from state employment departments.

Table 6-3

Employment in Office-Prone Businesses, 2000 to 2007 (Millions of Jobs)

Year	Information	Financial Activities	Professional and Business Services
2000	3.63	7.69	16.67
2001	3.63	7.81	16.48
2002	3.40	7.85	15.98
2003	3.19	7.98	15.99
2004	3.12	8.03	16.39
2005	3.06	8.15	16.95
2006	3.04	8.33	17.57
2007	3.03	8.31	17.96

Source: BLS, ftp://ftp.bls.gov/pub/suppl/empsit.ceseeb1.txt.

State employment offices and the U.S. Bureau of Economic Analysis (BEA) prepare employment projections for metropolitan areas and counties, but the frequency of updating varies widely among government agencies. Employment projections are more costly to obtain for areas smaller than a county or metropolitan area. However, firms such as PPR, CoStar, and Torto Wheaton Research (TWR) sell this information for defined submarkets. In markets where these sources are not available, the analyst may need to allocate a share of growth in the county or metropolitan area to the submarket.

Replacement Demand

One reason that office construction continues despite slow job growth is the need to replace obsolete facilities. Downtown submarkets contain numerous examples of vintage office buildings that have been converted to residential or hotel use. Other office buildings that lack character—and modern operating systems—have been demolished to make way for new projects, where the site can be used profitably for new construction. There is no single source of statistics on office or industrial demolitions or conversions, or the percentage of the total office inventory that these properties represent. However, companies that monitor the supply side of the office market delete these properties from the inventory when they are no longer being marketed for office use.

Using Historic Net Absorption to Predict Future Demand

Office employment trends offer one approach to calculating the demand for office space. A second approach is based on net absorption trends. Net absorption, which is the change in the amount of occupied office space over a period of time, is a direct expression of recent demand. Historic net absorption data can be obtained from national and local commercial brokerage firms or purchased from data vendors or consultants.

Both office employment trends and net absorption are imperfect proxies for office space demand, and neither approach should be relied on alone in market analyses. When used together, the two approaches can provide a reasonable picture of trends; however, the future may not replicate the past. It is important to look at what happened during periods of strong economic growth or recession and consider what is likely to happen in the regional economy when the project is under construction and leasing activity is underway. Straight-line projections are usually unreliable.

Submarket Demand

Once the market analyst has thoroughly examined metropolitan or county demand, he or she must look at the relative advantages and disadvantages of the submarket in which a building is located or proposed. Several factors influence the attractiveness of one office or industrial location relative to others in the same metropolitan market:

- *Proximity to a business's client base or facilities it uses on a regular basis.* This is why attorneys, title companies, and civil engineers tend to locate near the county office building or courthouse.
- *Availability of labor.* Skills needed will vary based on the types of tenants already found in the submarket as well as the demands of prospective newcomers. A call center wants to know that it can find staff willing to take relatively low-paying, part-time jobs. In contrast, an R&D facility or laboratory needs highly educated engineers and scientists, as well as trained technicians. Such employers look for locations near university campuses and may seek out university-sponsored research parks.
- *Accessibility for workers*, both by car and by transit.
- *Proximity to employee amenities*, such as shopping, restaurants, and health clubs, which can be important in attracting executive talent.
- *Housing costs* in the surrounding community. Where workforce housing is scarce, workers spend more time commuting, and turnover rates may be higher. Companies that tend to hire young workers want to locate in areas that have apartment units available.
- *Image of the submarket* as a good place in which to do business.
- *Comparative rents*.
- *Real estate taxes*, which can vary not only by submarket but also by municipal jurisdiction;
- *Impact fees levied* in selected jurisdictions.

The sources of demand for a proposed multitenant project generally can be segmented into two major categories: principal users and second-tier users. Principal users (a building's premium or marquee tenants) are generally large and growing firms. Potential premium tenants will consider a new location if they are unable to expand into contiguous space at their current locations. Much as their current landlords want to retain them, adjacent space may be occupied by other tenants who may not be able to relocate. If contiguous building floors are essential to a premium tenant's operations, moving becomes the only option. Developers must ascertain the presence of large, high-growth firms in the market area and their space needs. Relocation of corporate headquarters—within metropolitan areas or even across the country—can be another source of demand for large blocks of space.

A building's second-tier tenants generally are smaller firms, such as public relations companies, business consultants, and others that are drawn to a location near their major clients or one that provides access to potential clients. Small businesses have increased their share of total U.S. employment and account for a growing share of total office occupancy. Leasing agents and property managers must be attentive to attracting and retaining dozens of small users, often those who will occupy less than 5,000 square feet apiece.

Demand analysis must go beyond general projections of future growth to identify and assess the sources of demand for the proposed office building. That should include the identification of potential tenants and their needs. Interviews with office brokers and economic development specialists will provide insight regarding the need for new space.

Using Surveys

Surveying tenants in a market area is always desirable before developers invest in a new or existing commercial building. For a prospective purchaser, conversations with tenants provide a sense of their overall satisfaction with the accommodations and with building management, as well as their plans at lease renewal time. Business park developers benefit from learning about the needs of target companies and those companies' perceptions about the metropolitan area and the proposed location.

For office buildings targeted to a particular tenant group, survey research can help determine the depth of demand. For a building targeted to medical services, for example, a short questionnaire can be mailed to health care professionals in the local market area, asking about their satisfaction with their current space and interest in expansion. They should also be asked about the years remaining on existing leases. If a hospital is involved in the project, it can encourage physicians to participate. Allied professions, such as physical therapists, laboratories, alternative medicine practitioners, nutritionists, and radiology centers, should also be contacted.

Demand for Industrial Space

Unlike office demand, the need for most types of industrial space is difficult to determine using employment projections. Most industrial uses generate comparatively few jobs per square foot of leasable area, and space needs have little to do with changes in the number of jobs in production or distribution businesses. In addition, manufacturing employment has been shrinking in most U.S. markets. R&D properties are the only industrial class in which demand can be tied to job growth. R&D buildings are more labor-centric than warehouses, and demand can grow in areas with a highly skilled, tech-oriented workforce and near universities that have strong reputations for research and product development.

Demand Determinants

Warehouse and distribution demand is usually generated by changes in corporate logistics and freight volumes, not job growth. The need for modern space that can accommodate computerized inventory control and order fulfillment generates replacement demand that is not evident in employment statistics. Growth is also propelled by expansion in global trade. The desire for space near ports

Distribution Megacenters

"The proliferation of very large million-square-foot distribution centers is a direct result of the increased importance of imports and container traffic to the supply chain. When more products were provided domestically, the sourcing of goods was more decentralized and called for smaller and more numerous warehouse facilities. Now that imports have a much bigger role, more goods are funneled through a limited number of ports, which are then distributed domestically by truck or rail.... This is especially true for larger retailers that have large volumes of goods from multiple vendors.... Very large facilities also allow for the deployment of multiple shipping strategies within one facility based on the needs of the retailer or end user. Some goods are quickly being cross docked and shipped out immediately to regional distribution centers and stores; other goods are being transloaded, providing a mix of goods in single containers, while still other products are being stockpiled in order to ensure that seasonal demand can be met at critical times of the year. All of this can be accomplished if the facility is large enough and designed for these purposes with the proper clear-heights, door configurations, rail spurs, and yard space."

Source: Cushman and Wakefield, "The New Age of Trade," August 2006, p. 13.

or air cargo terminals can create opportunities if suitable sites are available. Demand has also been driven by the growth in Internet retailing; warehouses are the "stores" that serve the online shopper. As indicated earlier, distance to ports, air cargo facilities, and interstate highway interchanges is a key factor in the demand for warehouse and distribution buildings. Examining trends in shipping tonnage going into and out of nearby airports and water ports can be a very useful way to look at demand growth in these submarkets.

Freight Movement Modeling

Some market analysts forecast demand for warehouse and distribution space by analyzing domestic and international freight markets. Global Insight provides estimates and projections of freight traffic for 172 economic areas in the United States (as well as Canada and Mexico) by shipping mode and commodity; translating the data into demand for space of different types, qualities, and locations requires specialized expertise.[5] Additional data are available for other offshore locations.

Analysts who lack access to sophisticated freight movement models can evaluate a local area's attractiveness for warehouse and distribution activities by examining metropolitan input and output data, as described in chapter 3. Historic data on gross metropolitan product (GMP)—a measure of increases in local economic output—can also be tracked. Much of this output consists of the goods produced and stored in industrial facilities. A proportional relationship is derived between the change in occupied industrial space and the change in GMP, and that is used to predict future changes. The U.S. Conference of Mayors publishes an annual report on GMP, with current and historical statistics on the nation's 40 largest metropolitan areas.[6] On a cautionary note, this method, though helpful at the metropolitan level, provides no guidance for allocating growth among submarkets in a large metropolitan area. However, it can be very helpful in smaller places, where historical patterns can assist the analyst in allocating demand among one or two submarkets.

Replacement Demand

As with office space, the replacement of obsolete facilities is a factor in estimating industrial demand. Today's manufacturing and warehouse buildings are largely single story; many older multistory buildings have been demolished, have been converted to residential loft apartments or condominiums, or simply are no longer actively marketed as industrial properties. Less obvious is whether industrial properties built 30 to 40 years ago are still competitive; many are not. However, local businesses still need storage space and will be content to rent inexpensive space with 12- to 18-foot ceilings.

Using Historical Net Absorption

Using historical average annual net absorption as the basis for future demand projections is a common approach, but it must be done with caution. Demand for industrial space is sensitive not only to technology changes and the need to replace obsolete buildings, but also to national and regional economic conditions. A weak economy can shut down industrial demand very quickly. As is the case for office space, it is important for the analyst to look at how net absorption changed during periods of economic slowdown or recession. In assigning a share of metropolitan area absorption to a particular submarket, the analyst should also consider whether past trends will be indicative of future development patterns; new highway links, rail line improvements, tax incentive programs, or other factors could shift shares among submarkets. In all cases, the market study should describe the methods and assumptions behind future projections.

Government Incentives

To some extent, demand is influenced by the availability of government incentives to spur industrial development. The nature and extent of such incentives—be they tax abatements, revenue bonds, tax increment financing, infrastructure improvements, enterprise zones, low-cost or free land, or workforce training—can make a business park or an individual building much more marketable. When passed through to tenants in the form of lower rent, the value of these incentives can be considerable.

Although office tenants generate more jobs per square foot than most industrial space users, the focus of economic development incentives on production activity is a throwback to an era when factories employed workers earning good incomes. Today, R&D facilities are a frequent target of government developers because they provide high-paying jobs and generate few negative effects (such as truck traffic or noise).

Supply Analysis

For both office and industrial properties, the supply analysis starts with a review of past trends and current conditions in the metropolitan area and in the submarket where the subject site is located. Information (historical and current) on the size of the inventory, vacancy rates, net absorption, and rents is assembled by type of space and class of property. Space available for sublet is important as well as new or vacated space. The analyst also contacts local or county government agencies to find out how much space is approved but not yet under construction.

The first step is to profile existing and proposed office space in the market area. Market studies should include a brief inventory by type of space and class, as well as background on the volume of recent construction. It is important to describe the most competitive properties in detail, providing information on proximity to the subject site, ownership, building size and height, lease rates and terms, tenancy (whether owner- or renter-occupied, whether in single-user or multitenant buildings), and vacancy rate. Analysts typically start with a published list of buildings in the local market area. Such lists may be acquired from local commercial brokers, economic development agencies, utility companies, or the real estate press. Alternatively, the analyst can buy information on competitive buildings from data vendors. These sources tend to have more information than a local magazine or directory, and they are usually updated more than once a year.

In either case, a field survey will be needed to verify published data and to make certain that newly completed properties have not been omitted. When visiting an office building, the analyst may be able to check the tenant directory, note the types of tenants in the building, and observe the condition and attractiveness of the lobby. It must be noted, however, that the heightened security measures now typical in Class A office buildings makes fieldwork more difficult. Operating industrial or laboratory buildings have never been easy to view. The analyst will probably need to arrange interviews with a leasing agent or management staff to get needed information and a chance to inspect vacant space that is on the market.

Leasing Activity and Absorption

Analysts must distinguish between net absorption and leasing activity. As indicated earlier, net absorption is the change in occupied office or industrial space over a specified time period. Leasing activity is the gross amount of space for which leases are signed in a specified time period. Leasing activity does not account for space that has been vacated during the period. Net absorption subtracts vacated space from new leases. For example, if a tenant moves out of 50,000 square feet of space in one building and moves into the same amount of space in a nearby building, 50,000 square feet of space has been leased but net absorption is zero.

Because both measures—net absorption and leasing activity—shed light on space utilization, they are both relevant to the analysis. Net absorption indicates the real strength or weakness of a market, while leasing activity indicates movement within a market area. By comparing trends in net absorption and leasing activity, analysts can reasonably describe the underlying strength and stability of an office or industrial market. For example, a market in which the rate of net absorption and the rate of leasing activity move in tandem over time is more stable than a market in which net absorption and leasing activity exhibit widely varying rates.

The market is said to be churning if it has a high rate of leasing activity and a low rate of net absorption. In a market characterized by churning, tenants are leaving space in one building and taking space in another, both within the market area. While the market may seem to be growing, the amount of occupied space increases very little. Churning often occurs in overbuilt markets with falling rents. The availability of higher-quality space at lower rents, along with moving incentives offered by building owners, lures tenants away from their current locations.

As discussed previously, a straight-line projection that uses recent trends as the basis for estimating future scenarios ignores the all but certain appearance of the next stage in the economic cycle. Nor can an analysis that relies on recent historical trends take sufficient account of cyclical changes in net absorption. Market studies should look beyond actual absorption and employment trends, and consider how shifting national and local business cycles will affect supply. Overly optimistic forecasts can lead to overbuilding; similarly, being too conservative can mean missing opportunities.

Rent Trends and Lease Terms

Most office leases are expressed in terms of square feet of net rentable area. Unlike apartment buildings, for which rent is quoted on a monthly basis, office rents are usually expressed on an annual basis, except in a few cities, such as Los Angeles and Phoenix. Market analysts should review trends in asking rents for the metropolitan area as a whole and for the submarket. These data are usually available in reports issued by brokerage firms or can be purchased from national data vendors. When evaluating office rent trends, the analyst should focus on properties in a comparable quality class, but it is also important to know the difference in average rent per square foot for Class A, B, and C properties. The ability to retain a tenant at the time of lease renewal will be influenced by the gap in rent between property classes. If the gap is fairly narrow, a cost-conscious tenant might not be willing to move. If the gap is significant, the landlord of a Class A building will be competing with Class B buildings that have been upgraded.

During periods of market softness, building owners will offer concessions to attract tenants. Concessions can include free rent (an example would be a year of free rent on a ten-year lease), an above-standard allowance to cover interior buildout costs, or an offer to pay for a new tenant's moving expenses. *Effective rents* are contract rents net of concessions.

Triple net rents are typical in new buildings. The tenant is billed for a pro rata share of real estate taxes, insurance, and utilities, based on the amount of space leased. Office leases often include escalator clauses: the rent increases each year (or at some other specified interval) based on a commonly accepted index, such as the BLS's Consumer Price Index (CPI). In some buildings, the landlord may include certain utilities and taxes in the base rent and charge tenants only for actual increases above the initial base year of the lease. These rents are quoted as "modified gross."

When leasing a new building, the landlord will want to avoid having the same duration for all leases. Staggering the years that leases expire is a way to minimize the risk that the building will have to find many new tenants in a single year, should leases not be renewed.

Global Office Occupancy Costs

Office rents reflect local market conditions. High vacancies make it difficult for landlords to raise rents. Cities with barriers to entry—where new space is difficult to build because of a shortage of suitable land or a complex regulatory process—have the highest rents. In the United States, midtown Manhattan is the priciest market, but as table 6-4 shows, 14 other markets around the world had higher annual office rents in the third quarter of 2008. The table also shows that rents in Canadian CBDs (Calgary, Toronto, Vancouver, Edmonton, Ottawa) are much higher than those in downtown Atlanta, Chicago, or Dallas, where development controls are not as stringent.

Vacancy Rates

In the past, a strong office or industrial market was characterized by a vacancy rate no higher than 5 to 7 percent. The attractiveness of a submarket in a metropolitan area—and individual buildings within that submarket—was judged based on how close it came to this ideal range. Since the 1990s, office vacancy rates of 10 percent have been considered acceptable—and have triggered new construction. However, office vacancy rates can often top 20 percent, not only in economically depressed regions but also in high-growth areas with few barriers to development. Table 6-5 illustrates this concept, using reported overall office vacancy rates for the third quarter of 2008. Because of the several years it takes to build a high-rise office building, developers are not able to respond nimbly to sudden changes in demand. Industrial buildings are constructed more quickly, however, so projects can be put on hold when leasing activity slows and net absorption turns negative.

The overall vacancy rate in an office submarket does not, by itself, tell the analyst anything about the characteristics of existing space on the market. It is not unusual to see construction begin on new office buildings in areas where the vacancy rate exceeds 10 percent; if the area attracts large firms and there are no sizable contiguous spaces (full floors) available, developers will start new projects to capture key tenants who are seeking to expand. Similarly, if vacancies are concentrated in Class B or C space, new construction might be justified. In a tight market, a lender will require preleasing of only 30 percent of an office building's space (40 percent in an industrial facility); if conditions are soft-

Table 6-4

Annual Office Occupancy Cost per Square Foot

Global Top 15	
Place	**Cost ($)**
London West End	248.66
Moscow	234.73
Hong Kong Central CBD	231.59
Tokyo Inner Central	184.26
Mumbai CBD	170.85
Dubai	156.53
Tokyo Outer Central	151.69
London City	146.61
Singapore	135.13
Hong Kong Prime Districts	132.97
Abu Dhabi	132.44
Paris	131.62
New Delhi CBD	122.18
Dublin	108.58
New York Midtown	98.08

U.S. and Canada Top 15	
Place	**Cost ($)**
New York Midtown	98.08
Calgary CBD	66.58
Los Angeles Suburban	63.58
Toronto CBD	61.54
New York Downtown	59.16
Vancouver CBD	54.99
Boston CBD	52.86
Washington, DC	51.26
San Francisco	48.57
Miami CBD	46.53
Edmonton	46.09
San Jose	42.07
Seattle CBD	41.70
Stamford, CT	41.64
Ottawa	41.45

Source: CB Richard Ellis, *Global MarketView: Office Occupancy Cost,* November 2008, pp. 4, 14–15.

ening, stricter preleasing requirements will apply. If the market analyst is helping the developer to prepare a feasibility study, the analyst will be required to give an opinion on stabilized occupancy, on the basis of historical performance of similar properties in the submarket and new supply that will come online at the same time. Lenders will be skeptical about overly optimistic occupancy scenarios, especially in locations where it is easy to build new space.

Industrial brokers usually provide information on *industrial availability*, not vacancy. Because so much industrial space is corporate-owned, vacant space is not always on the market. Available space is a better measure of full or partial buildings that could be acquired or leased. Although empty manufacturing buildings are a common sight in older cities, many of them are not suitable for modern production operations or cannot be economically reconfigured for a different industry. In reality, modern, adaptable manufacturing space tends to have the lowest availability among the three types of industrial buildings and shows little movement from year to year. In contrast, R&D space occupancy is the most volatile of industrial types.

Only a few market data sources provide industrial space information by subtypes. Warehouse data are the most widely available because the buildings are easiest to categorize. Most market data from secondary sources are lumped into a single category labeled "industrial." Data portrayed in this fashion explain little about actual market trends and the performance of individual subtypes of industrial property, so analyses that are based on such generalizations often result in flawed conclusions. Analysts most often must make the best of imperfect data, but it is worth the time and trouble to identify a data source that characterizes the industrial market in the proper way.

Sublet Space

Ascertaining the amount of space available for subleasing in a market area (sometimes called "shadow space") is an important element of the supply analysis. When markets are overbuilt, tenants may vacate before the end of the lease period in order to secure less expensive or more desirable space. If business is contracting during a recession, a company might lay off a portion of its workforce and consolidate operations in a smaller number of

Table 6-5
Overall Office Vacancy Rates, Third Quarter 2008[a]

Highest CBD Vacancy		Lowest CBD Vacancy	
Place	**Rate (%)**	**Place**	**Rate (%)**
Dallas	26.5	Charlotte	2.1
Detroit	22.7	Boston	7.0
Atlanta	21.1	Manhattan[b]	7.4
Cincinnati	19.8	Portland, Ore.	8.5
St. Louis	18.1	San Francisco	9.9

Highest Non-CBD Vacancy		Lowest Non-CBD Vacancy	
Dallas	26.5	Charlotte	2.1
Detroit	24.5	Birmingham	6.5
Cincinnati	23.0	Richmond	7.8
Dallas	21.6	Hampton Roads, Va.	8.1
Chicago	20.3	Los Angeles–Tri-Cities and West	8.7
Phoenix	20.2	Nashville	9.1

Source: Cushman & Wakefield, *Marketbeat: United States Office Report, 3Q08*.
a. Rates are for CBDs and suburban markets with at least 10 million square feet of office space.
b. Weighted average for midtown south, midtown, and downtown.

locations. Sublet space, even if it is not occupied, is not technically vacant. It is still covered by a lease and the tenant is still paying rent. It is, nevertheless, part of the available inventory. Tenants that vacate before the end of their lease term generally attempt to sublease the vacated space.

Often, space available for sublease is offered at a discount and thus is less expensive than other vacant space. The availability of large blocks of sublet space can impinge significantly on the viability of existing and proposed office projects in the market area. It is important, therefore, to include an estimate of sublet space in the analysis of the competition that a prospective project will face. In response to this need, many sources now publish availability rates rather than vacancy rates.

Transaction Data

Another way to look at the health of office and industrial markets is to look at recent sales transactions, comparing the number and size of properties traded, and the average sale price per square foot with investment activity in preceding years. These data are important for investors who are considering the acquisition of an existing building. For new construction, having information on the cap rates associated with recent property trades helps developers and lenders estimate building values.[7] Transaction information is often reported in the real estate or general business press, but the amount of detail provided can be limited. Sales comparables can be purchased from sources such as CoStar and Real Capital Analytics. The market analyst should visit the buildings to see how they are similar or different from the subject property.

It is important to remember that transaction values reflect the availability of capital as well as the characteristics of the properties being traded. When the market is flush with funds for equity investment or mortgage loans, property prices are driven up even when property supply fundamentals—rent growth, absorption, occupancy—are showing signs of weakness.

Future Additions to Supply

The inventory of competitive supply must include planned projects that may come online and compete with the project under consideration. Such data are more difficult to obtain and less reliable than surveys of existing buildings. Not all approved projects are actually built, and others are modified before the project is completed (this is especially true of large, multibuilding projects that are built out over many years). Some local economic development agencies and planning offices compile lists of submitted projects and track their progress through the approval and development pipeline. Officials in these agencies are likely to know about proposed projects and should be able to provide some details. Market analysts can confirm and expand upon information from public agencies by questioning brokers and developers about building plans.

In markets that contain a plethora of small government jurisdictions, assembling information on the status of projects under construction or planned for the future can be very time-consuming. It may be more efficient to purchase construction pipeline information from private data vendors. Companies such as PPR and TWR may bundle this information with historical and current supply performance data.

Evaluating Competitive Office Buildings

In general, high-rise buildings tend to be more prestigious, often because they offer attractive views and natural sunlight on the upper floors, as well as a certain presence. Corner properties are preferable to midblock properties that may lack good views and lose the light benefits of height. Several other important factors attract office tenants—and support higher rents:

- Building visibility.
- Compatibility of surrounding uses.
- Ease of access. In the suburbs, it is especially important for visitors to be able to enter and exit the property—and find parking—easily. The cost of parking may also be a factor, both for employees and for visitors in a downtown location. Some tenants want valet parking. Covered parking can be helpful in extreme climates.
- Attractive, enduring exterior design. Although each tenant will have an opinion on architectural style, an experienced analyst can tell whether a building has long-term curb appeal, is attractively landscaped, and is well maintained. A good impression is important in attracting tenants. The durability of exterior finishes will be important when examining older properties. The appearance of the building should fit the rent level.
- Floor sizes and space configuration.
- Energy efficiency. Increasingly, tenants seek space in "green" buildings, not only to be socially conscious but also to save money on utilities.

If the analyst can get into the building, he or she should also note the number of elevators and calculate whether it is sufficient to meet today's standards. A preferred ratio is one elevator for every 30,000 to 40,000 square feet of rentable area above the ground floor. Amenities such as a concierge, fitness center, restaurant or deli, shared conference room, dry cleaner, copy shop, convenience store, and bank should be noted. Smaller buildings will not have amenities in the building, but similar facilities should be located nearby. Ground-floor retail and specialty space in office buildings is often difficult to lease; it should be minimized unless the market requires such amenities or they are not available in the area surrounding the building. The image of the lobby must be appropriate for the type of tenants in the building. Some firms are sensitive to cost issues and therefore do not want to pay for an overdesigned, expensive lobby.

Comcast Center, Philadelphia. © *Peter Aaron/Esto*

For the buildings that are deemed most competitive with a proposed development or acquisition, the market analyst should provide tables that summarize building characteristics and should comment on the advantages and drawbacks of the subject property. A comparison of rents (asking and effective) should be presented, along with information on vacancy rates, the size of vacant spaces, and recent absorption. Important tenants should be noted. (When considering an acquisition, an investor will want to be sure that no one tenant occupies more than 30 percent of the space in a building, lest occupancy be vulnerable to a large move-out or corporate downsizing.)

Although analysts can purchase much of the information needed for the analysis of competitive buildings, the sources may be updated only once or twice a year. Nothing substitutes for conversations with leasing agents and property managers, who can verify information and provide insights. To predict absorption for a new property—or one that is being substantially rehabilitated and retenanted—it is important to ask other managers about the absorption experience of their properties (the percentage of space that was preleased when construction started, during construction, and after the building was open). Absorption history for recently completed projects is one of the best indicators of

1180 Peachtree, in Atlanta. © *Joe Steed*

what to expect when a new property enters the market, but it is important to remember that the balance of supply and demand can quickly change as businesses move in, contract or expand, or leave altogether.

Evaluating Competitive Industrial Space

The type of industrial property being studied will determine the nature of comparable buildings or business parks included in the market study. For R&D and office/showroom properties, emphasis should be placed on similar buildings, both new and old. Rent information for conventional office space or small warehouse buildings is also useful for comparisons. There is no need to include data on high cube distribution centers.

For all industrial building types, each competitive property's advantages and drawbacks should be discussed with respect to age, physical attributes, accessibility, building condition, proximity to highways, and parking. In a warehouse and distribution study, such elements as ceiling height, office build-out percentage, column spacing, building depth, the number of dock and ground-level doors, truck parking and turning space, and other functional components help define the property's market. Vacancy rates, tenant mix, recent lease signings, move-outs, and upcoming renewals should be noted to the extent that information is made available by property managers or through secondary sources. For business parks, the mix of building types and sizes should be described, as well as amenities (restaurants, health club, hotel) and site features (landscaping, trails). The report text should also indicate whether the business park includes corporate-owned, single-tenant buildings as well as multitenant leased space.

In analyzing an existing project proposed for acquisition, the analyst should review a rent roll or, at minimum, a leasing summary. These sources identify tenants, rental rates, lease terms, and other relevant factors. The client or the analyst obtains this information from the current owner or the listing broker. As with office space, most rents for industrial property are quoted on an annual basis. In the case of a project that is not yet built, the analyst's job, most likely, will be to recommend the characteristics that are most desirable for the market by examining comparable properties.

Putting It All Together

A comparison of the current rate of net absorption of office or industrial space with the existing (and planned) supply of space gives a fairly clear picture of the overall balance between demand and supply in the market. For example, if annual net absorption in the area has been averaging 50,000 square feet and 50,000 to 75,000 square feet of space are available, demand and supply are in balance. If, however, 100,000 square feet of space are available, the market has a two-year supply of office space; and if the market contains 500,000 square feet of available space, it has a ten-year supply. This simple comparison of current demand and supply represents an expedient way of gauging the market's short-term supply-demand balance, but such a snapshot should not be the basis for predicting future trends. To be of any real value, the market analyst must look for factors that could affect absorption of office or industrial space in

the future and interpret current market conditions accordingly.

In an office or industrial market study, the market analyst's conclusions will include estimates of absorption, rents, and operating vacancy rate. All three elements are vital to preparing a cash flow analysis. For determining absorption, smart analysts use ranges rather than a precise number. The stabilized vacancy range should reflect what is realistic in the local market. In an area where vacancies in good properties are typically higher than 10 to 15 percent, a stabilized vacancy rate of only 5 percent is inappropriate. For both types of properties, the absorption pace will depend on the extent of preconstruction leasing. Concessions as a share of contract rent should also be estimated, although they may disappear during periods when market conditions are strong.

The analyst will also indicate the proportion of supportable demand that will be captured by the subject property and whether that proportion is reasonable and achievable. An initial proxy for a building's "fair share" capture rate is the share of competitive supply that it will represent once it is completed. This share-of-current-supply method is a good first cut at estimating a building's capture rate. A building may absorb more or less than its share, depending on its competitiveness. Perhaps a location and amenities that make the building superior to the competition or lower rents that make it more attractive will enable the proposed project to capture extra market share. It is important to be realistic, especially when economic conditions support below-average demand projections.

As indicated in previous chapters, the market study should include tables summarizing the features of comparable properties, along with photographs of the buildings and any unusual features of their surroundings. At a minimum, maps should include (1) the boundaries of the local submarket and its location within the metropolitan area; (2) the location of the subject site within the submarket; (3) the surrounding land uses and nearby transportation infrastructure; and (4) the location of comparable properties, existing and planned.

Data Sources

Sources of information on the current economic base and historic employment statistics by NAICS code for counties and metropolitan areas are covered in chapter 3. State labor departments, as well as the BLS, are the most important providers. Through its County Business Patterns, the Census Bureau issues county-level reports that include the number of employees and business establishments by SIC code. These data can serve as proxies for identifying the type of tenants in a county and their sizes. Information on top employers is often compiled by chambers of commerce and by the local business press; both are also sources of information on planned business expansions and closings.

Although some state labor department and larger metropolitan planning organizations prepare employment projections, they rarely have the resources to update the numbers every year in response to changing economic conditions. The BEA provides employment projections for metropolitan areas; its forecasts form the basis of most state and local employment projections. Projections of office-prone employment can be purchased from Economy.com and other consulting firms (such as TWR or PPR) that do their own economic modeling. Global Insight sells freight flow data that can be useful in predicting the demand for warehouse space.

Most metropolitan areas have at least one real estate brokerage firm that maintains a database of commercial buildings. Office and industrial property guides are also available in magazine form or online. Obtaining published lists should be the first step in identifying competitive buildings. Data on net absorption, rents, and occupancy can be obtained for a metropolitan area, for individual submarkets, and on a building-by-building basis, either from local consultants or from data vendors such as CoStar, REIS, PPR, or TWR. For example, TWR's "Industrial Outlook" covers three types of industrial properties, providing regular updates of rent, space availability, construction activity, and transactions, both across metropolitan areas and for subareas in 85 metropolitan areas. The database goes back 15 years. Short-term forecasts are included. TWR's "Peer Select" report provides details on individual properties. Reports ordered online can be customized. TWR also resells McGraw-Hill construction pipeline information for both office and industrial properties. (PPR uses Reed Construction Data.) The analyst must supplement published information with field visits to competitive properties and interviews with leasing staff. It is important to remember that each private source defines submarkets and property classes somewhat differently.

Brokerages also publish reports covering area-wide and submarket trends in net absorption, asking rents, and vacancies by property class or building size. However, broker forecasts usually do not project beyond a year or two. Coverage can be inconsistent among firms and across metropolitan areas. For example, CB Richard Ellis's *United States Industrial Availability Index* (published quarterly) covers only facilities with more than 100,000 square feet, although information on smaller buildings is often included in market reports prepared by local affiliates. Grubb & Ellis's coverage is defined locally; in some markets, buildings as small as 5,000 square feet are included, while in others the minimum size is 25,000 square feet. Although Grubb & Ellis's national industrial vacancy reports include multitenant, single-tenant, and owner-occupied space, other firms cover only investment properties. Cushman & Wakefield and Colliers International provide easy-to-read summaries of office building inventory, year-to-date absorption, vacancy rates, quoted rents, and other indicators for dozens of markets across the United States. These firms all have networks of global affiliates that publish similar data for foreign markets. Information is updated quarterly or semiannually. However, not every metropolitan area is covered and, as with the private vendors, submarket boundaries will not be consistent among brokerage firms.

Public sector economic development agencies and utility companies tend to be more active in providing industrial market data than office information. They often maintain data on available sites and can be useful sources for information on labor force availability and skills, training programs, and financial incentives to spur development or reuse of vacant buildings.

As indicated earlier in this chapter, interviews with local bank economists, chambers of commerce, and public sector economic development agencies help the analyst identify office and industrial tenants who have indicated that they plan to expand or leave the area. Conversations with office brokers can provide insight into the types of firms that are locating in particular submarkets, and what they are looking for: size of spaces, age of buildings, amenities, and features. Lease announcements in the real estate press can also be valuable in pinpointing the types of locations that are attractive to different types of businesses.

Overview of Case Studies

Two case studies illustrate the principles discussed in this chapter. A case study for an office building features a project in Rosslyn, Virginia, an urban office node located across the river from Washington, D.C., that offers excellent visibility and access. Old, obsolete buildings in this area are being demolished to make way for high-quality trophy buildings to be leased to high-profile tenants. This case study explores the market potential for such a building at a newly vacant site.

The subject of the industrial property case study is an existing 140,000-square-foot, fully leased, multitenant warehouse in a major Minneapolis industrial corridor. The analysis focused on the property's potential rent growth based on regional and submarket economic conditions. Analysis of warehouse development is typically much less qualitative than analyses of other kinds of development because warehouses lack many of the features and amenities that make other kinds of development desirable. Users are generally most concerned with cost and location, although utilitarian features such as ceiling heights and loading docks will also be considered. In this case, the analysis was conducted in-house by an investor deciding whether to acquire the property.

Notes

1. Colliers International, *U.S. Real Estate Review 2008*, pp. 3–4.

2. The U.S. Green Building Council provides an independent, third-party assessment of a building's construction and performance called LEED (Leadership in Energy and Environmental Design) certification.

3. Johannson L. Yap and Rene M. Circ, *Guide to Classifying Industrial Properties*, 2nd ed., ULI–the Urban Land Institute, 2003.

4. The BLS has constructed cross-tabulations of occupations by industry that allow calculation of the ratios used in the NAR report.

5. *Transearch Insight* is sold by subscription through Global Insight (www.globalinsight.com)

6. U.S. Conference of Mayors, *U.S. Metro Economies: GMP—The Engines of America's Growth*, prepared by Global Insight, June 2008.

7. The capitalization rate (or cap rate) is the ratio of annual net operating income to original cost or current market value.

Case Study 6.1

Trophy Office Building: Rosslyn, Virginia, 2009

Margarita Foster

The owner of an obsolete office building in a rapidly redeveloping submarket in metropolitan Washington, D.C., has demolished the structure and is contemplating breaking ground on a trophy-quality office asset. A market study was undertaken to determine where office lease rents will be upon delivery of the asset. Having an understanding of future market rents will enable the owner to determine whether the project is financially feasible. Additionally, understanding what rents the market will bear will set rent expectations for both landlords and tenants during prelease negotiations, which often are conducted two to three years before construction and delivery.

In order to understand long-term economic conditions for a metropolitan area and the submarket in which a property sits, an office study typically begins with an overview of regional macroeconomic factors over ten to 15 years. Conditions such as sustained job growth and resilience following economic downturns are indicators of markets with solid long-term expansion prospects. Most developers, however, already have an understanding of macroeconomic conditions in a major metropolitan area before they commit to a financial investment. This means they often request that this portion of the study be truncated. If a developer has previously invested in the submarket, he or she has already studied the broad areawide trends and buys into the long-term prospects for the region. At this point in the process, when the focus is on the site and its submarket, developers are keenly interested in local conditions, so they can assess the viability of their particular project. Presented below is an abbreviated economic overview.

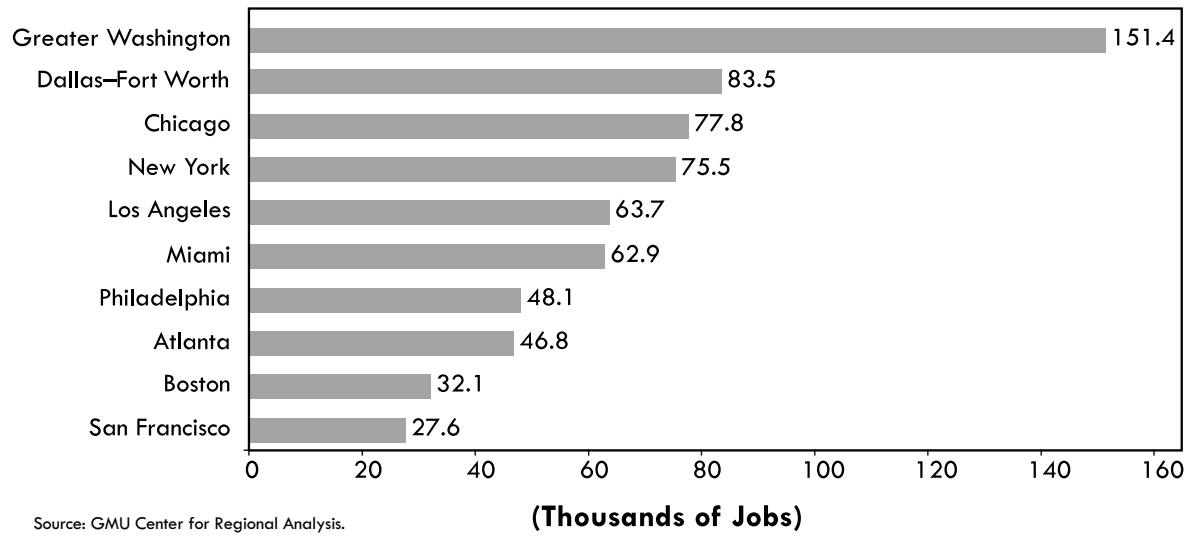
Job Growth

Job growth is the key metric associated with demand for office space. Over the past ten years, the Washington metro area has significantly outperformed almost all major metropolitan areas in terms of net new jobs added.

Projections made by the Metropolitan Council of Governments indicate that the Washington region will continue to generate new jobs between now and 2030. While the metropolitan area is not recession proof, as indicated by

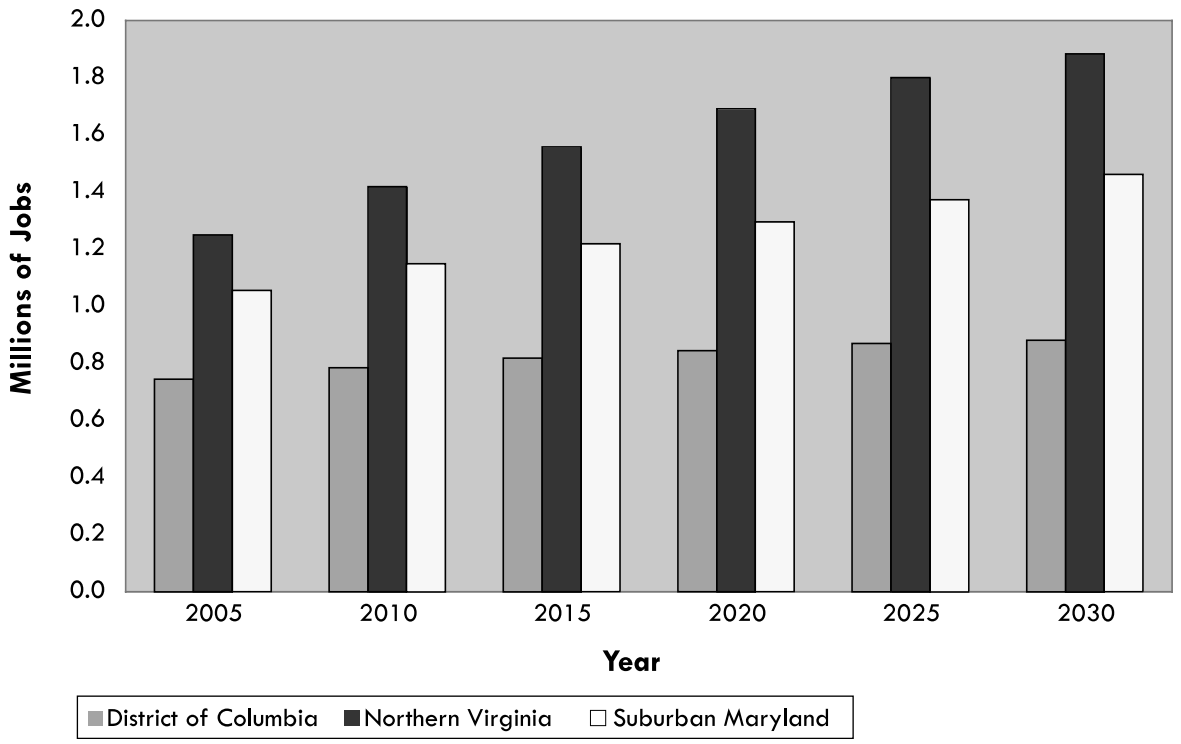
Figure 6.1-1

Growth in Professional and Business Services Jobs, 2002–2007



Source: GMU Center for Regional Analysis.

Figure 6.1-2
Employment Forecast for Washington, D.C., Region



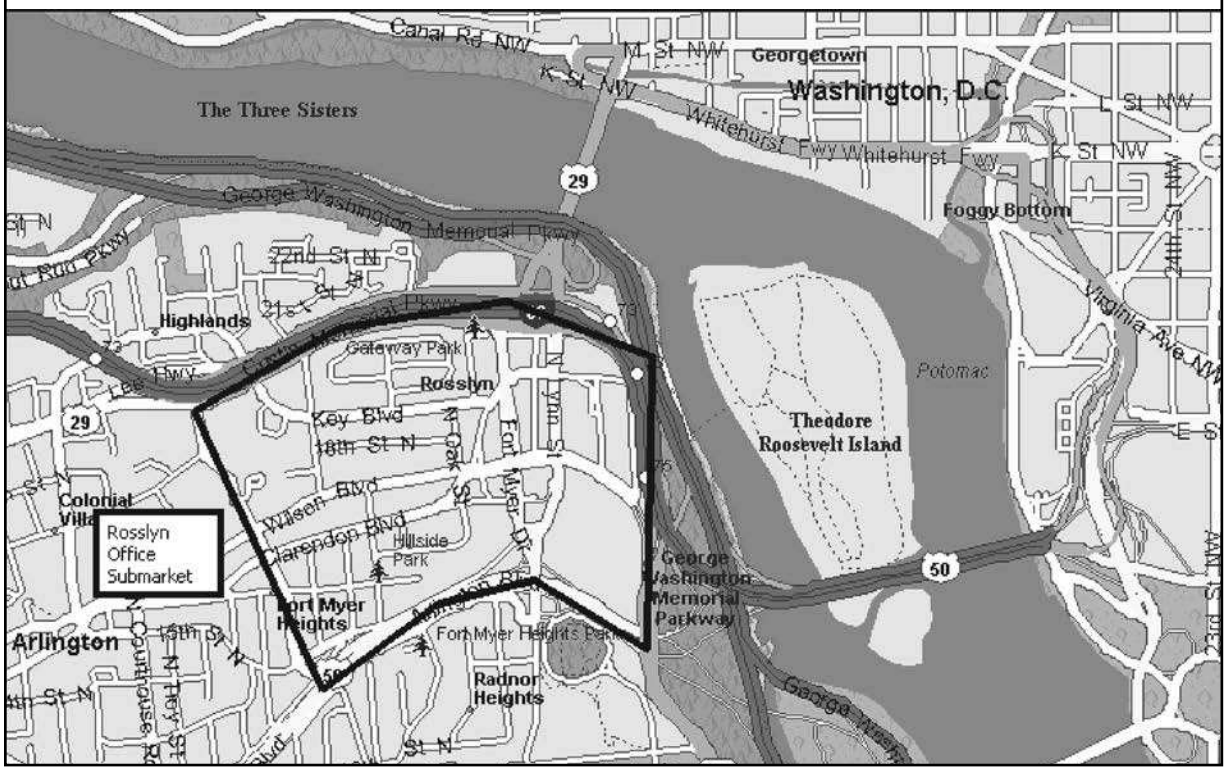
2008 and 2009 layoffs at law firms, real estate companies, construction companies, state and local governments, media entities, and other employers, the area is recession resistant because of the massive federal presence. Despite deteriorating conditions in the overall economy in the first half of 2009, the George Mason Center for Regional Analysis is still forecasting net job growth in the area of 23,700 and 36,500 in 2009 and 2010, respectively. Most of these jobs are expected to be in business and professional services (this is the category that includes most government contractors) and the health care industry.

The types of jobs created are crucial for determining office space demand. The "Professional and Business Services Sector" in the area includes white-collar jobs in areas such as law, real estate, and accounting. Growth in this sector in greater Washington has outpaced that seen in other major metropolitan areas by nearly two to one. Figure 6.1-1 shows recent growth in professional and business service jobs for greater Washington compared with such growth in other major metropolitan areas. Figure 6.1-2 shows employment forecasts for the region.

GMP in Metropolitan Washington

The performance of economies in most U.S. metropolitan areas fluctuates with economic cycles. The Washington metropolitan area has posted steady growth for the past 17 years, demonstrating consistent resiliency throughout economic cycles. The greater Washington area's gross metropolitan product (GMP) is projected to outpace that of other metropolitan areas by a wide margin over the next two years. Figure 6.1-3 shows the location of the Rosslyn submarket.

Figure 6.1-3
Submarket Map for Rosslyn Property



Submarket Geography

The Rosslyn, Virginia, submarket is situated across the Potomac River from Washington, D.C. It has direct views of the National Cathedral, Washington Harbor, the Kennedy Center, the Washington Monument, the Lincoln Memorial, and Teddy Roosevelt Island, making it one of the most picturesque vantage points in the Washington metropolitan area. Additionally, the submarket is adjacent to Arlington National Cemetery and Fort Myer Army Base and close to the Pentagon (2.5 miles) and National Airport (3.5 miles). It is the easternmost submarket in the Rosslyn/Ballston transit corridor and serves as the gateway between the District and Arlington. The Rosslyn/Ballston corridor, which features five underground Metro stations in Arlington and is known for spurring high-quality mixed-use development, is often referenced as an exemplary model of transit-oriented development in the United States.

Rosslyn is bounded by Quinn Street and Rhodes Street to the southwest, adjacent to the Courthouse office submarket. Interstate 66 runs to the north and east, and Route 50 borders the south. The submarket features 8.8 million square feet of commercial office space in 46 buildings. It is the first submarket in the Rosslyn/Ballston corridor, which is the commercial spine of Arlington County, Virginia, and is considered one of the premier office corridors in the metropolitan area. Table 6.1-1 shows characteristics of Class A, B, and C office buildings in the submarket and the corridor.

Transportation and Access

Access issues are critical for office buildings because of the daily influx and outflow of people. The most valuable locations are typically situated in the geographic center of a metro area. They can be accessed from numerous

Table 6.1-1
Rosslyn Office Building Characteristics

Category	Buildings	Share of Inventory (%)	Space (Millions of Sq. Ft.)	Share of Inventory (%)
Rosslyn				
Class A	15	32.61	4.74	53.82
Class B	23	50.00	3.72	42.24
Class C	8	17.39	0.35	3.94
Total	**46**	**100.00**	**8.81**	**100.00**
Rosslyn/Ballston				
Class A	63	36.42	14.51	65.04
Class B	55	31.79	6.34	28.42
Class C	55	31.79	1.46	6.54
Total	**173**	**100.00**	**22.31**	**100.00**

Source: Cassidy & Pinkard Colliers.

roads and highways and feature a variety of transportation modes. These options provide access to a range of employees, including executives, who tend to drive and pay for parking, and young professionals, who favor mass transit. Location and transportation infrastructure are fixed characteristics that owners typically cannot modify and that thus contribute greatly to the value of a building.

Access to the Rosslyn submarket is excellent; it includes a variety of modes including Metro (subway and bus), highways, streets, sidewalks, and bike paths. The Rosslyn Metro Station is the first subway stop in Virginia after leaving the District and is a transfer point between the Blue and Orange lines. Rosslyn is the 11th-busiest station in the system, counting on average 15,000 riders per weekday. The line runs east-west through affluent Virginia suburbs and then into the CBD office submarket in the District, thus providing excellent access between Rosslyn offices and such major destinations as George Washington University, many federal agencies, national and international law firms, and nonprofit organizations, all only one or two stops away.

Interstate 66, U.S. Routes 50 and 29, and the George Washington Parkway all surround Rosslyn and provide direct access from points in Virginia. The Roosevelt and Key bridges connect Rosslyn to the District, and Key Bridge, especially, sees a great deal of foot and bike traffic.

Character and Setting of the Submarket

Office environments vary greatly. They can range from urban skyscrapers to tree-lined office parks with jogging trails. Defining the scale and quality of the submarket is important for understanding the physical setting and character of the subject area.

Rosslyn is a highway-accessible, transit-served, pedestrian-oriented, mixed-use urban environment and is among the most densely developed submarkets in the Washington metropolitan area. New buildings along the waterfront such as Twin Towers, Potomac Tower, and Waterview have floor/area ratios (FARs) approaching ten and feature world-class architecture. The buildings are home to many major government contractors, financial services firms, and management consultants. The buildings range from two to 31 stories, averaging about 14 stories. Most were built in the 1960s and have been occupied for decades by federal government tenants and government contractors. Table 6.1-1 shows the square footage of office buildings, by class, in the Rosslyn submarket.

Major Anchors and Tenants

Recognized corporate names convey a great deal about the creditworthiness of the tenants and therefore the stability of the submarket. Additionally, understanding the tenant makeup helps identify industry sectors or clusters

drawn to the submarket. Table 6.1-2 lists major office tenants in the Rosslyn submarket.

With some exceptions, there are four general groups of tenants in Rosslyn: federal civilian entities, military entities, government contractors, and private sector entities.

- Federal civilian entities include the Department of State, the Department of Labor, and the U.S. Postal Service. To varying degrees, these entities rely on government contractors to perform outsourced services such as information systems management and employment security screenings. Although some contracts have proximity requirements that stipulate that the contractor be near the host agency, most do not. However, contractors choose to lease office space close to their clients, not only to carry out current activities efficiently but also to remain visible and maintain relationships for future activities.
- Military entities including the Army Corps of Engineers, numerous Air Force functions, and Department of Defense (DoD) agencies are also prevalent in Rosslyn, in large part because of the area's proximity to the Pentagon. Government contracts emanating from DoD range from top-secret weapons design to policy advice to phone systems management. Most DoD agencies are due to leave the submarket by 2012 because of BRAC (Base Realignment and Closure) requirements. The effects of those departures are discussed in the next section.
- Government contractors such as General Dynamics, BAE Systems, and Accenture have a large presence in Rosslyn supporting the government and military entities. These contractors invest significant amounts of money building out secure spaces and ensuring that power supplies and bandwidth are plentiful. They tend to remain in fixed locations, expanding and contracting on the margin (by about 3,000 to 10,000 square feet each) by occupying neighboring suites, as federal awards come and go.
- Private sector entities include such companies as Friedman Billings Ramsey (FBR) and the Corporate Executive Board (CEB). FBR's founding partners chose Rosslyn for its convenience, because they lived in northern Virginia. As the company prospered, it chose to remain in Rosslyn and is headquartered in a trophy building along the Potomac River. Table 6.1-3 shows net annual absorption of office space in Rosslyn.

Table 6.1-2
Major Tenants in the Rosslyn Submarket

Tenant	Address	Rentable Space (Sq. Ft.)
Corporate Executive Board	1919 N. Lynn St.	495,000
Department of State, Bureau of Diplomatic Security	1801 N. Lynn St.	323,000
Department of State	1701 N. Fort Myer Dr.	281,000
Army Corps of Engineers	1500 Wilson Blvd.	219,000
Friedman Billings Ramsey	1001 N. 19th St.	150,000
Deloitte	1919 N. Lynn St.	130,000
Department of Labor	1100 Wilson Blvd.	90,000
BAE Systems	1300 N. 17th St.	66,000
BAE Systems	1101 Wilson Blvd.	36,000
General Services Administration; Department of State	1700 N. Moore St.	60,000
General Services Administration; Department of State	1000 Wilson Blvd.	60,000
WJLA-TV7	1000 Wilson Blvd.	60,000
Education Management	1820 N. Fort Myer Dr.	60,000

Source: Cassidy & Pinkard Colliers.

Net absorption (see table 6.1-3) in Rosslyn averaged just under 123,000 square feet between 1999 and 2008, with significant positive and negative fluctuations from the departure of one large tenant in 2001 and the delivery of a fully preleased building in 2008. Despite the fluctuations, vacancy has averaged just 8.0 percent. The low vacancy figure means that vacated space was quickly filled by new tenants. The tight vacancy also means that large, contiguous blocks are rarely available, so users seeking to consolidate in Rosslyn need to do so by watching expiring leases closely and quickly committing to large or adjacent blocks.

Two dynamics bring about net demand in the Rosslyn submarket. The first is steady demand from the core users for blocks of space of between 10,000 and 20,000 square feet. The second is the occasional large user committing to a significant prelease, causing new buildings to be delivered with most of the space already taken.

In 1999, leasing activity was brisk as users such as Education Management, CAIS Internet, the U.S. Postal Service, and the American Plastics Council all moved to the submarket. In 2001, conditions reversed and negative net absorption of 600,000 square feet was recorded, largely because 500,000 square feet of space was vacated by the Gannett Corporation at Twin Towers. Gannett moved and expanded at a build-to-suit property in Tysons Corner. More than half of the Gannett space was quickly backfilled by a variety of tenants, two of which came from the District (WJLA-TV and a nonprofit association).

Table 6.1-3
Net Absorption in Rosslyn

Year	Annual Net Absorption (Sq. Ft.)	Year-End Vacancy Rate (%)
1999	541,175	4.3
2000	97,496	5.6
2001	–613,693	13.8
2002	426,388	11.6
2003	–7,286	10.7
2004	124,532	7.2
2005	97,341	5.7
2006	–131,517	7.3
2007	–28,177	7.6
2008	720,566	5.7
2009 Q1	–8,874	6.8
Average	122,683	8.0

Source: Cassidy & Pinkard Colliers.

Recent Changes and Redevelopment Plans

Dynamics in Rosslyn have been changing over the past decade as cost-conscious D.C. tenants moved there seeking proximity and amenities similar to those found in the District but at lower rents. Two noteworthy examples of "creep" from the District are the moves by the Department of State and CEB.

In 2002 the market posted more than 400,000 square feet of net absorption. The building at 1801 N. Lynn Street was delivered fully preleased to the Department of State's Office of Diplomatic Security, making this federal agency another new entrant to Rosslyn from the District. The agency's move across the river to Rosslyn stemmed from its inability to find contiguous space near its headquarters at 23rd and C streets, N.W.

In 2008, the 720,000-square-foot net absorption figure was influenced by the delivery of Waterview; CEB moved to Rosslyn from Washington, D.C., and consolidated in 625,000 square feet in the 2007 building overlooking the Potomac River and the District. The growing company had expanded into a variety of locations in the CBD and the western edge of the District. With buildings typically sized between 200,000 and 300,000 square feet in the CBD, finding a location to accommodate a larger user proved challenging. The few development options available would not be entitled for years, let alone finished, and were also going to be too expensive at rents of about $55 per square foot, full service. The company negotiated a prelease for the space in Waterview at $42 per square foot, full service, which allowed the developer to begin construction of the building.

The notion that growing numbers of D.C. tenants will require affordable contiguous space is still plausible, despite the economic recession. However, it will take longer for these tenants to materialize given the frozen financial markets and uncertain economic conditions. Think tanks and educational nonprofits that carry out minimal lobbying and need not be close to Capitol Hill are key targets for Rosslyn. Federal agencies are also prime users, especially those with a strong presence on the western edge

of the CBD. Unfortunately for the Rosslyn market, most of the growing federal entities that are managing economic recovery programs, such as TARP and TALF, are related to the Department of Justice and the Securities and Exchange Commission, both of which are located near Capitol Hill, to the east of the CBD.

Law firms are prime targets for Rosslyn, because these users tend to occupy the majority of the region's true trophy space. To date, however, they have not crossed the river into Rosslyn, for two reasons. First, a Washington, D.C., address offers a cachet more in line with New York, London, and Tokyo, than does Rosslyn, Virginia. A D.C. address projects stature for global law firms seeking to build relationships with the political elite, attract and retain top legal talent, and attract the world's wealthiest clients. Although global law firms do have a significant presence in the suburbs, Rosslyn is disadvantaged here as well. Moves to the suburbs usually occur so lawyers can be closer to their suburban homes, and Rosslyn is too close to the center to satisfy this criterion.

Despite these drawbacks, at some point, Rosslyn will become a fashionable address for law firms. With the building height restriction in the District, centrally located, amenity-rich, Metro-accessible space will not be delivered by going up, but by going out. The building height restriction in the District is an important factor limiting the ability of firms to expand in contiguous space. Development of the East End of D.C. serves as an excellent example. Just 15 years ago, this submarket adjacent to the CBD was a no-man's-land. Today it is a vibrant submarket in the District. Looking west, the next major adjacent submarket with obsolete buildings whose teardown can be justified is Rosslyn. Law firms will be the litmus test. Interestingly, the current downturn and ensuing recovery may result in a law firm jump to Rosslyn, as these entities sacrifice prestige for affordability. At present, none of the region's 20 largest law firms are known to be looking for space in Rosslyn; however, numerous firms are being courted.

Major Anchors Nearby Affecting Leasing and Pending BRAC Departures

Arlington is home to the Pentagon and, as such, hundreds of military and DoD entities generate demand for office space nearby. In 2005, under the Base Realignment and Closure Act numerous entities were scheduled to move from conventional office space to military bases, justified by cost savings (moving from leased to government-owned space) and increased security needs (bases offer limited access and setbacks). In Rosslyn, 12 buildings were affected by the BRAC provisions, resulting in roughly 750,000 square feet of office space to be vacated. The majority of departing users are from groups related to the Army and the Washington Headquarters Service. In 2005 and 2006, as the market heated up, the timing of the BRAC moves was seen as fortuitous by developers who envisioned that military users would vacate older buildings. Developers could then redevelop empty buildings, leasing them several years later to D.C. tenants seeking quality space at lower rents in Rosslyn. Table 6.1-4 shows the office buildings in Rosslyn that are most affected by BRAC relocations.

While military contractors come and go from the submarket, on the whole they tend to remain and expand, and they have generated net demand for office space. With the BRAC moves taking military users out of the equation, the effect on demand remains to be seen. In addition, the government contractors that typically cluster around these agencies will likely follow their clients to their new locations.

Unfortunately, the BRAC moves on the horizon do present a significant increase in vacancy. If none of the vacated space is backfilled, the market could see availability of 750,000 square feet, which represents a roughly 10 percent increase in Rosslyn vacancies. A related factor is the degree to which military contractors will vacate space as the clients they serve relocate to Andrews Air

Table 6.1-4
Buildings Most Heavily Affected by BRAC

Building Address	Space to Be Vacated (Sq. Ft.)
1777 N. Kent St.	243,000
1700 N. Moore St.	163,000
1401 Wilson Blvd.	117,000
1400 Key Blvd.	84,000
1555 Wilson Blvd.	48,000

Source: Cassidy & Pinkard Colliers.

Table 6.1-5
Development Pipeline: Approved Office Projects in Rosslyn, First Quarter 2009

Address	Name	Rentable	Source	Owner	Comments
1812 N. Moore St.	1812 N. Moore St.	569,739	AED/ NAIOP	Monday Properties	Redeveloping 1812 N. Moore through to Fort Myer Dr. and air rights above Dominion Virginia Power substation
1201 Wilson Blvd.	Central Place	570,549	AED/ NAIOP	The JBG Companies	Two-building project with 350 apartments, 44,500 sq. ft. of retail, ground-level plaza, and observation deck
1716 Wilson Blvd.		108,753	AED	Contis	Extending Quinn St. between Wilson and Clarendon boulevards
1710 N. Moore St.	Rosslyn Metro Building II	260,000	NAIOP	Clover Leaf Management Corp.	

Force Base, Fort Meade, and Mark Center in Alexandria. Although it is difficult to quantify the amount of space contractors will vacate, it is safe to assume some contract space will become available, providing more drag on the market in the short term. In the long term, Rosslyn's proximity to the Pentagon (just two Metro stops away) and the area's excellent transportation network will carry significant weight in its continued desirability as a location for military contractors.

With the vacancy rate currently at 8 percent, BRAC and related moves could push vacancy into the upper teens. Much of this would be in Class B and C properties and would not compete directly with high-end buildings. Moreover, not all of this space will be vacated simultaneously. Moves will be staggered, and space with unexpired lease terms may be backfilled by a variety of federal entities other than DoD in an effort to make use of the remaining lease term. Although the vacancy will not be in trophy space, the idea that vacancy is approaching 20 percent in Rosslyn will not benefit landlords.

Redevelopment Plans

In Rosslyn, the office development pipeline includes 1.5 million square feet of approved buildings listed in table 6.1-5. These approved projects are in line with Rosslyn's decades-long redevelopment effort, which envisions a transformation of the neighborhood from what is now a Class A/B office submarket for mostly federal entities to a trophy-quality mixed-use environment with more housing units, hotel rooms, retail space, and cultural attractions. Arlington Economic Development is positioning Rosslyn as "Manhattan on the Potomac." Among the office buildings approved to date are two 30- and 31-story trophy towers, expected to spark the transformation of Rosslyn from a federal hub to an extension of the District's highest-quality submarket, the CBD.

Upon completion of the redevelopment plan, the overall metrics of Rosslyn will be as shown in table 6-1.6.

Office Lease Rates

Over the past six months, leases executed in Rosslyn's highest-quality buildings have ranged between roughly $40 and $60 per square foot, per year, on a full-service basis, with tenant improvement allowances ranging from "as is" to $50 per square foot. Free rent has not been as prevalent in Rosslyn as in other northern Virginia submarkets; nevertheless, it has ranged up to six months in some deals. The largest space commitment was made by Deloitte for 172,000 square feet of sublet space offered by CEB for $45 per square foot. Deloitte's move was a consolidation from regional locations, mostly in Crystal City, Tysons Corner, and Ballston. This move was unusual because over the years, most of the megaleases (100,000 square feet or more) signed in Rosslyn have been executed by D.C.-based ten-

Table 6.1-6
Rosslyn Development Summary

	Existing (2009)	At Buildout[a]
Office (Sq. Ft.)[b]	7.9 million	11.3 million
Housing Units	6,672	12,338
Hotel Rooms	2,225	2,385
Retail (Sq. Ft.)	420,000	596,000

Source: Arlington County Department of Community Planning, Housing, and Development.
a. Excludes potential bonus density.
b. Excludes federally owned office space.

ants moving out rather than suburban tenants moving in. Table 6.1-7 shows asking rents in Rosslyn since 1998, and table 6.1-8 gives details on recent office leases by tenants other than Deloitte.

Future Rents

Determining future rents requires an assessment of elements such as current rent comparables, general economic conditions, tenants in the market (demand), supply of new space, pending vacancies, and expanding or contracting industries. It also requires answers to the questions: Is the market tilting toward tenants or landlords? How strong does the tilt appear, and what can one expect? These and other elements are discussed below.

Most prereleases in trophy buildings are executed for ten or more years. Therefore, establishing a fair initial rate and setting escalations that keep the building rents at market is critical, so cash flow—and therefore the building's value—can keep pace with overall market conditions.

With some exceptions, trophy rents typically represent the high-water mark in the submarket at any given moment. Most leases are negotiated before ground breaking, so understanding the trajectory of rental rates is critical. The process of projecting trophy rents involves assessment of several general areas:

- top-of-market baseline rents;
- top-of-market long-term rental rate increases;
- market cycle;
- building attributes;
- tenants in the market (demand); and
- competition.

Table 6.1-7
Average Rents, Rosslyn Class A Office Space

Year	All Class A ($/Sq. Ft./Year)	Percent Change	Top-of-Market Class A ($/Sq. Ft./Year)	Percent Change
1998	28.89		30.78	
1999	31.13	7.75	37.99	23.42
2000	34.62	11.21	37.99	0.00
2001	36.14	4.39	39.18	3.13
2002	31.44	–13.00	36.15	–7.73
2003	31.93	1.56	42.99	18.92
2004	32.92	3.10	39	–9.28
2005	35.51	7.87	42	7.69
2006	38.89	9.52	43	2.38
2007	40.39	3.86	46.99	9.28
2008	45.11	11.69	58.87	25.28
Average		4.46		5.52

Source: CoStar.
Note: All are asking, direct face, full service rents.

Table 6.1-8
Recent Office Leases, Rosslyn Submarket

Tenant	Address	Execution Date	New or Renewal	Space Leased (Sq. Ft.)	Term (Years)	Rent ($/Sq. Ft.)	Tenant Improvement Allowance ($/Sq. Ft.)	Free Rent (Months)	Escalation (%)
CIFI DC	1100 Wilson Blvd.	2/2/2009	New	5,315	5	62.00	3.00	2	3
BBN Technologies	1300 17th St. N.	10/7/2008	Renewal	40,346	7.25	46.50	25.00	4	3
Preferred Offices	1001 N. 19th St.	10/1/2008	New	17,925	10	54.00	50.00	6	3
Booz Allen Hamilton	1530 Wilson Blvd.	6/26/2008	Renewal	9,234	5	40.50	0.00	0	3
Kepler Research	1530 Wilson Blvd.	8/26/2008	Renewal	4,078	3	42.50	0.00	0	3
NBPTS	1525 Wilson Blvd.	5/13/2009	Renewal	14,697	3	41.75	0.00	0	4
Antonelli Terry Stout	1300 17th St. N.	12/24/2008	Renewal	23,177	10	58.50	14.00	—	—
Interra Solutions	1530 Wilson Blvd.	11/1/2008	New	21,500	1.5	38.00	—	—	—
MBDA	1300 Wilson Blvd.	3/1/2009	New	8,000	10	45.50	50.00	4	3
Intelligent Discovery Solutions	1001 19th St. N.	12/29/2008	Sublet	7,204	2.3	43.50	0.00	0	4
BAE Systems	1101 Wilson Blvd.	3/15/2009	New	18,000	10	54.00	53.00	—	—
U.S. Government	1101 Wilson Blvd.	11/20/2008	Renewal	20,765	5	38.00	0.00	0	0
General Dynamics	1000 Wilson Blvd.	1/6/2009	New	27,777	1.75	48.00	—	—	4
Systems Planning Corp.	1000 Wilson Blvd.	10/29/2008	Renewal	40,000	7.5	60.00	30.00	3	3
Digital Globe	1000 Wilson Blvd.	10/2/2008	Relet	5,808	5	52.50	35.00	—	3
Rosetta Stone	1919 N. Lynn St.	10/6/2008	Sublet	31,281	5.2	45.00	0.00	2	3

Sources: Grubb & Ellis; Studley.
Note: — = Not available.

Typically, baseline rents are set using the highest current rents achieved on executed deals in the submarket's highest-quality buildings. In Rosslyn, top rents are reaching $55 to $60 per square foot, full service. Next, typical long-term (ten- to 15-year) increases in high-end rent are established. In Rosslyn, these increases have fluctuated up and down, peaking at the top of the market cycles in 2001 and 2008. Despite the fluctuations, the average highest asking rental rates increase by about 5.5 percent over ten to 15 years. It is important to note that asking rental rate data are readily available and serve as a proxy for actual rents over time on completed deals. If in-place rents, including escalations, for the submarket's highest-quality buildings are available, these data serve as the best benchmark.

Market Cycle

Macroeconomic office market conditions are assessed to determine whether the market is expected to rise, fall, or flatten. In other words, is the ten-year increase in average rental rate expected to hold or will it be higher or lower based on market conditions? Overall, rents are falling in northern Virginia and Washington. In Rosslyn, the typical 5.5 percent trophy-rent premium is not expected to be achievable in the near term based on frozen markets, lack of trophy tenants looking for space, ample supply of trophy build-to-suit options, and declining rents in the District's western office submarkets. However, rents in Rosslyn are not expected to fall significantly. The expectation is they will remain flat as contractor activity continues and tenants seeking a Metro-served, close-in Virginia location keep the market level.

Table 6.1-9 projects that base rents at the top of the market will remain flat in 2010, rise negligibly in 2011 as the credit markets thaw a bit and the economy gains some traction, and then level off again in 2012 as the BRAC moves result in increased vacancy. While the BRAC

Table 6.1-9
Top-of-Market Rent Projections

	Q1 2009	2010	2011	2012	2013	2014	2015
Projected increase (%)		0	1	1	2	3	4
Amount ($/sq. ft./year, full service)							
Bottom of range	55	55.00	55.55	56.11	57.23	58.37	59.54
Top of range	60	60.00	60.60	61.21	62.43	63.68	64.95

Note: Projections are for base rents, not net effective rents.

vacancies will not be in trophy space, the higher overall vacancy rate will bolster the tenants' bargaining power. By 2013, assuming greater overall economic traction, rents could begin to rise very modestly.

Attributes of any new building must be assessed and rents increased or decreased from the average. Key attributes for a to-be-built trophy building include the following:

- proximity to Metro;
- direct access to and from major arteries;
- ample parking in relation to the amount of space built;
- proximity to retail and lifestyle amenities such as restaurants and eateries, drug and other convenience stores, and public plazas;
- noteworthy architecture;
- respected and financially sound developer, owner, and property manager;
- LEED certification;
- views and vistas from the building;
- features such as rooftop terraces managed both for private use and for all building users;
- a white-tablecloth restaurant and full-service health club in the building; and
- concierge service.

Typically, the premium for trophy buildings in core markets of the D.C. metropolitan area has been 5 to 15 percent on top-of-market rents. The appropriate percen-tage is set collaboratively by teams of developers, brokers, and analysts, based on a building's attributes. The agreed-upon premium is applied to the current top-of-market rent to determine an appropriate asking rental rate range for negotiations. Table 6.1-10 assumes a 10 percent rent premium for a new trophy building and lists projected rents over five years, using the assumed rent increases discussed above.

The Tenant

Once a tenant is interested in the projected rent the push and pull begins, based on the tenant's particular circumstances. The most critical questions to answer: Is there enough space in its current location to renew? Do the available terms meet business needs? How do the rental rates and incentives compare?

If other trophy options are available, owners will compete aggressively to lure the tenants. For the subject property, at issue is demand from trophy-quality tenants. Solid leads from trophy tenants will likely take years to percolate as users assess numerous options in the face of stagnant economic conditions and eroding office fundamentals. Throughout the metropolitan area, many leases signed since the end of 2008 have been for the short term, in hopes that upon expiration in one or two years, conditions will favor tenants to a greater degree. This wait-and-see game is playing out at the moment, with tenants having the upper hand.

Competition

The pipeline of active trophy buildings in Rosslyn includes four major projects that are fully designed and approved. Challenges in financing in the current environment are delaying ground-breaking. Development of four trophy office projects in Rosslyn is unprecedented and creates ample options for trophy tenants. Tenants can press own-

Table 6.1-10
Trophy Building Rent Projections

	Q1 2009	2010	2011	2012	2013	2014	2015
Projected increase (%)		0	1	1	2	3	4
Amount ($/sq. ft./year, full service)							
Bottom of range	60.5	60.50	61.11	61.72	62.95	64.21	65.49
Top of range	66	66.00	66.66	67.33	68.67	70.05	71.45

Note: Projections are for face rents, not net effective rents. Assumes 10 percent premium over top-of-market rents.

ers hard, not simply because market fundamentals are eroding but also because there is viable competition.

Further competition comes from landlords at existing buildings, who in this market are working ferociously to retain creditworthy tenants. The stagnant economy is worrisome to most business owners, making them reluctant to move. Some tenants, however, face situations that cannot be resolved in their current location. They may have outgrown their space and find that additional blocks are not available in their existing building or nearby. Others may be in space that is encumbered by another user that intends to move in. Still others may face a significant rent increase should they renew, so a move will represent rent relief. Trophy tenants based in D.C. that face one or more of these scenarios are prime candidates for a move to Rosslyn.

Another source of available space is the sublet market. Currently there is one significant trophy block of space available for sublet at 1001 North 19th Street. FBR has made most of its space at Potomac Tower available until 2014. This block provides a satisfactory solution to tenants that need trophy space either immediately or in the near future.

Conclusion

Unfortunately, rents are likely to erode in the coming months given continued job losses, lack of trophy tenants in the market, and availability of trophy space in both the new and sublet markets. At this juncture, the client would do best to delay ground breaking and continue searching for a prelease with commencement later rather than sooner, so rents stand a chance of recovering.

By 2014, the trophy market could register rent increases of 3 to 5 percent, assuming that some of the BRAC space has been filled. By then it is possible that a trophy tenant will have signed for a portion of one of the planned projects. The projection is that by 2014, a federal user will have set the benchmark for rent in the upper $50s to low $60s per square foot, full service, for half to all of one of the buildings, or a private sector user will have taken about 25 to 50 percent of one of the buildings at a rent in the mid $60s per square foot, full service.

Case Study 6.2

Warehouse: Minneapolis, Minnesota, 2009

Andrew Angeli

The subject property is a 335,000-square-foot warehouse and distribution building located in a business park in the Northwest industrial submarket of Minneapolis. The building is being considered for purchase. It is fully leased through 2018 to a single tenant. It was built in 1999 and renovated in 2008 to meet the tenant's needs; a fully automated overhead conveyer system was installed at that time.

Minneapolis Economic Overview

The Minneapolis economy contracted sharply in 2008 and its performance now lags that of the nation. Employment levels in retail trade and in professional and business services dropped sharply between 2008 and 2009. Discouraged workers are leaving the local labor force, which is now smaller than it was in the first half of 2008. Commodity-based industries, a mainstay of the Minneapolis economy, are no longer generating growth. Employment in Minneapolis contracted 0.2 percent in 2008, a noteworthy decline from the 1.1 percent average annual increase of the four preceding years. In 2008, the GMP fell by 0.1 percent. In 2009, job growth is expected to plummet by –3.6 percent, a deeper decline than the national forecast of –2.9 percent. GMP is expected to fall by 1.6 percent in 2009. Both metrics would be historic lows.

Minneapolis is home to a number of corporate headquarters and Fortune 500 companies. Leading employers include Target, 3M, General Mills, and Best Buy. The metropolitan area's status as a prominent headquarters location is exemplified by the expansion plans of Cargill and the Thomson Corporation. In addition, Wells Fargo, U.S. Bancorp, and Ameriprise Financial are major local employers. Minneapolis also boasts a large agricultural commodities exchange. One potential challenge locally is posed by the recent merger of Delta Airlines with Northwest Airlines, forming the world's largest airline. Although the airline is expected to continue to have a sizable presence in the metropolitan area, a net loss of 1,500 jobs is expected at the former Northwest headquarters in Eagan, Minnesota.

The Minneapolis manufacturing base has been contracting rapidly; between 2006 and 2009, the sector shed more than 8,000 jobs. Offshoring also remains a risk to the local manufacturing sector.

Minneapolis has become more dependent on health care services for generating job growth, relative to professional services. The two industries together provide nearly 30 percent of all area employment. Professional and business services will be hard hit in the near term, but over the long term that sector and health care services will be the best performers in terms of growth. Such jobs tend to be high-paying and contribute to the area's above-average median incomes.

The contraction in local consumer spending is causing retail job losses to rise rapidly and bankruptcies among retailers to rise, too. This means that more commercial real estate foreclosures are likely. Planned projects are being put on hold. For example, Target has halted construction of its SuperTarget store in Inver Grove Heights (south of St. Paul). In this climate, the recent bankruptcy of Virginia-based Circuit City will not result in any immediate growth for Richfield, Minnesota–based Best Buy. In fact, Best Buy is also downsizing, having offered buyout packages to employees nationally. Once the economy recovers, however, Best Buy could gain from the loss of its former biggest competitor.

Minneapolis faces a bumpy road in 2009, as the national recession suppresses demand from local manufacturers and credit remains tight for local businesses and consumers alike. In the long term, the metropolitan area will generally track the nation in terms of growth. The area is distinguished by its high-quality, well-educated labor force, regionally important health care and education sectors, diverse economic base, high value-added manufacturing, and budding biotechnology sector. Despite this favorable underpinning, however, the area's potential is hampered by weak demographic trends and the relatively high costs of doing business for the Midwest region. From 2009 through 2013, employment growth is projected to average 0.9 percent per year. Over the same time period, GMP will grow by 2.3 percent, which is below long-term trends.

Minneapolis Industrial Market

The Minneapolis metropolitan area comprises nearly 322 million square feet of space, predominantly mature (older than 1979), smaller (less than 100,000 square feet) stock. The industrial inventory is distributed across eight submar-

kets, with the Southwest and Northwest accounting for 39 percent of the total.

As of the first quarter of 2009, the areawide industrial availability rate was 10.0 percent, close to a new high for the metropolitan area, yet still below the national rate of 12.2 percent. Local availability has risen by 220 basis points from year-end 2006 because of sustained negative absorption over seven of the preceding eight quarters. The 2.9 million square feet shed in the first quarter of 2009 was the sector's worst performance since 2003, when the metropolitan area was hammered by the fallout from the high-tech contraction.

Negative absorption will continue to plague Minneapolis in the near term. The 3.9 million square feet of negative absorption forecast for 2009, as shown in table 6.2-1, will exceed the poor performance in 2001, when occupancy dropped by 3.5 million square feet. This will drive the availability rate to 11.2 percent for 2010–11, also a new high. Between 2009 and 2013, absorption is expected to average only 1.2 million square feet—just a third of its long-term historical average. Positive absorption in the latter years of the forecast period will help lower the availability rate to 9.6 percent by the end of 2013.

Table 6.2-1
Minneapolis Metropolitan Industrial Market (Base Case)

Year	Base (Millions)	Delivery (Millions)	Absorption (Millions)	Availability Rate (%)	Rent Change (%)
1998	292.37	6.48	7.54	4.3	6.5
1999	297.30	4.93	6.50	3.6	10.2
2000	305.53	8.23	2.73	5.3	3.1
2001	310.48	4.96	–3.52	8.0	–0.4
2002	312.51	2.02	–1.05	8.9	0.0
2003	313.62	1.12	–2.98	10.1	–7.4
2004	315.70	2.08	1.80	10.1	4.3
2005	317.54	1.84	8.87	7.9	2.3
2006	319.02	1.48	1.68	7.8	3.8
2007	320.65	1.63	–0.81	8.5	6.0
2008	321.76	1.12	–0.83	9.1	2.0
Q1 2009	321.76	0.00	–2.94	10.0	—
Research Forecast					
2009	322.62	0.86	–3.88	10.5	–8.8
2010	323.59	0.97	–1.31	11.2	–3.5
2011	324.80	1.21	1.29	11.2	2.4
2012	326.81	2.01	4.05	10.5	3.0
2013	330.11	3.30	5.90	9.6	4.1
Downside Forecast					
2009	322.49	0.73	–5.96	11.2	–10.2
2010	323.32	0.82	–3.15	12.4	–4.1
2011	323.50	0.19	–0.97	12.7	–1.1
2012	324.26	0.75	2.63	12.1	2.5
2013	326.23	1.98	6.17	10.7	4.5

Sources: Torto Wheaton Research; CBRE Investors.
Note: — = Not available.

Construction levels have been soft compared with the long-term trend. Minneapolis's average rate for industrial construction activity over nearly 30 years is 4.4 million square feet per year. Yet, because of declining demand, new construction activity has been very low in recent years, averaging just 1.6 million square feet since 2002. The specter of rising availabilities in the near term will cause construction activity to grind to a halt. The submillion delivery mark forecast for 2009 and 2010 is a metropolitan-area first. As the national economy improves, and conditions improve locally, construction levels will pick up. This will help buoy the five-year construction forecast average to 1.7 million square feet per year.

Warehouse and distribution facilities make up the majority of space in the metropolitan area, accounting for nearly 70 percent of the total industrial stock. As of the first quarter of 2009, this building type had an availability rate of 9.4 percent. Manufacturing facilities make up 19 percent of the regional inventory, with availabilities currently standing at 9.3 percent. R&D space comes in a distant third with about 11 percent of the total stock. As is the case nationally, in Minneapolis the R&D property has the highest availability rate (15 percent) of the three industrial property types.

Industrial rental rate growth is projected to average 0.7 percent per year over the forecast period (2009 to 2013), slightly above the national average. From 2009 to 2010, annual rent growth will decline by a cumulative 12.3 percent—a much sharper contraction than in the last recession, when rents fell 7.8 percent from 2001 to 2003. Since that time, rents had gained momentum, averaging 3.7 percent annually through 2008. Rents are expected to pick up some momentum in 2011 and exceed the rate of inflation by 2013.

Minneapolis is an "income" market for warehouse investments, meaning it has relatively low return potential and below-average forecast risk (the potential for actual market rent growth to be lower than forecast). Property is purchased for the rental income it generates, not its appreciation potential. While the rental recovery forecast (from 2011 to 2013) for Minneapolis outpaces the national average because of the area's lower availability rates, it still falls below the threshold for a high-return metropolitan area. In addition, favorable liquidity prospects help buffer the industrial sector.

CBRE Investors' forecast for the Northwest industrial sector is more pessimistic in terms of rent growth than the Torto Wheaton Research (TWR) base case. TWR and CBRE Investors differ in the timing and severity of the forecast negative absorption. CBRE Investors expects the downturn to be sharpest in 2009, with weakness extending into next year. Correspondingly, CBRE Investors' rent forecast is much more negative in the near term, with a recovery from 2011 to 2013, whereas TWR has a very flat rent pattern through the forecast period.

Northwest Industrial Submarket

The Northwest submarket is the second-largest industrial concentration in the metropolitan area. It accounts for 18 percent of the total area inventory. The submarket has garnered roughly a third of all construction and absorption in the metropolitan area since 1994. Warehouse and distribution facilities make up 77 percent of the total inventory in the submarket, compared with 70 percent across the metropolitan area. As of the first quarter of 2009, this building type had an availability rate of 9.9 percent. The submarket is recognized for its concentration of medical-related tenants.

As of the first quarter of 2009, the Northwest submarket had an overall industrial availability rate of 10.0 percent, as shown in table 6.2-2. This rate was comparable with the metropolitan area average but was 190 basis points higher than the rate registered at the end of 2008. Strong deliveries through the late 1990s and weak demand earlier in this decade pushed the availability rate in the Northwest above 11 percent in 2002–2004. An upsurge in demand in 2005 caused availabilities to trend downward; they are now hovering in the single digits. In recent years, availabilities in the Northwest submarket have tracked at or slightly below rates throughout the metropolitan area.

In its tracked history, construction activity in this submarket has repeatedly captured an above-average share of total activity in the metropolitan area. This trend will continue through the forecast horizon. Over the next five years, new construction should average 512,000 square feet. Though accounting for a third of construction activity in the metropolitan area, this forecast pipeline is half of its long-term average of 1.1 million square feet because rising availability rates hinder developers from building new product.

Despite two years of negative demand in 2009 and 2010, the Northwest submarket will average 385,000 square feet of net positive absorption for the forecast period. Although the submarket will be hit harder during this reces-

Table 6.2–2
Northwest Industrial Submarket (Base Case)

Year	Base (Millions)	Delivery (Millions)	Absorption (Millions)	Availability Rate (%)	Rent Change (%)
1998	48.35	1.68	2.01	5.6	6.8
1999	50.46	2.11	2.25	5.1	11.0
2000	52.97	2.51	0.96	7.9	4.8
2001	54.74	1.77	0.04	10.7	–3.2
2002	55.62	0.88	0.34	11.5	–1.2
2003	55.62	0.00	–0.28	11.9	–8.9
2004	56.54	0.92	0.86	11.8	3.9
2005	57.38	0.84	2.98	7.9	4.8
2006	57.87	0.49	0.57	7.7	7.4
2007	58.15	0.28	–0.04	8.2	6.3
2008	58.47	0.32	0.35	8.1	2.1
Q1 2009	58.47	0.00	–1.11	10.0	—
Research Forecast					
2009	58.58	0.11	–1.41	10.7	–8.5
2010	58.82	0.24	–0.06	11.1	–3.3
2011	59.18	0.36	0.54	10.8	2.7
2012	59.87	0.68	1.29	9.6	3.4
2013	61.03	1.17	1.55	8.8	5.0
Downside Forecast					
2009	58.58	0.11	–2.25	12.1	–9.9
2010	58.78	0.20	–0.26	12.9	–3.9
2011	58.84	0.06	–0.09	13.1	–0.8
2012	59.10	0.26	0.84	12.0	2.9
2013	59.80	0.70	1.62	10.4	5.4

Sources: Torto Wheaton Research; CBRE Investors.
Note: — = Not available.

sion than during the previous one, availabilities will not climb as high. The submarket availability rate will peak in 2010 at 11.1 percent. Rebounding demand in 2011 and beyond will help bring the rate down to 8.8 percent by 2013. The submarket's availability rate will remain lower than that of the metropolitan area for the forecast period. Table 6.2-3 focuses on the warehouse component of industrial space in the Northwest submarket.

Rent growth in the Northwest submarket is forecast to be negative, averaging –0.3 percent per year, better than the metropolitan area, from 2009 through 2013. Rents were fairly robust over the preceding five years, averaging 4.9 percent growth, as the availability rate remained in the single digits. Like the metropolitan area as a whole, negative demand will cause rents to slide a cumulative 11.8 percent through 2010. A rebound in rent growth will gain traction, averaging 3.7 percent per year versus 3.2 percent for the metropolitan area, from 2011 to 2013.

The weighted average rent for 2009 lease comparables for warehouse properties in the submarket is $4.89 per square foot, triple net (NNN). As shown in table 6.2-4, the comparable properties range from 156,300 to 285,000 square feet, but only one lease is for a building close to the size of the subject property. The buildings

Table 6.2–3
Warehouse Market Fundamentals

Year	Inventory (Millions of Sq. Ft.)	Delivery (Millions of Sq. Ft.)	Absorption (Millions of Sq. Ft.)	Availability Rate (%)
Minneapolis Market				
1998	206.20	5.58	5.49	4.9
1999	209.77	3.57	5.56	3.8
2000	215.31	5.54	2.47	5.1
2001	218.68	3.37	–3.10	8.0
2002	220.27	1.59	–0.82	9.1
2003	221.07	0.80	–2.79	10.6
2004	222.30	1.24	1.98	10.2
2005	223.62	1.32	6.28	8.0
2006	224.61	0.99	2.04	7.4
2007	226.08	1.48	–0.19	8.1
2008	226.70	0.62	–0.83	8.7
Q1 2009	226.70	0.00	–1.61	9.4
Northwest Submarket				
1998	36.48	1.42	1.41	6.0
1999	38.24	1.77	1.89	5.4
2000	40.37	2.13	0.80	8.5
2001	41.62	1.25	–0.19	11.0
2002	42.27	0.66	0.58	6.0
2003	42.27	0.00	0.04	11.6
2004	43.19	0.92	0.94	11.4
2005	44.03	0.84	2.38	7.4
2006	44.49	0.45	0.33	7.6
2007	44.76	0.28	0.03	8.1
2008	45.01	0.25	0.23	8.1
Q1 2009	45.01	0.00	–0.81	9.9

Sources: CBRE Investors; Torto Wheaton Research.

Table 6.2-4
Lease Comparables

Comp #	Tenant	City	Building (Sq. Ft.)	Leased Area (Sq. Ft.)	Year Built	Date of Lease	Lease Term (Years)	Annual Rent ($/Sq. Ft.)	Annual Increase (%)	Office Share (%)	Ceiling Height (Ft)
1	TD Plastics	Otsego	156,300	57,600	2008	Mar. 2009	10	5.10	2.0	9	24
2	BTD Manufacturing	Otsego	156,300	96,000	2008	Mar. 2009	10	4.83	2.0	3	24
3	Uponor US	Lakeville	285,000	285,000	2009	Jan. 2009	10	4.86	2.5	4	32
4	Hardwoods	Rogers	259,000	21,600	2006	Jan. 2009	5	5.65	2.5	7	32
5	Vistar	Maple Grove	182,704	87,938	1998	Nov. 2009	10	5.00	2.0	8	32
6	Vistar	Maple Grove	182,704	88,141	1997	Nov. 2009	10	4.95	2.5	9	32
7	Room & Board	Rogers	258,573	258,573	2004	Mar. 2009	4	4.76	2.0	1	32
8	Superior Pool	Maple Grove	182,704	49,142	1997	Jan. 2009	5	5.00	3.0	12	32
Total			1,663,285	943,994							
Weighted average								4.89			

Sources: Torto Wheaton Research; CBRE Investors.

range in age from brand new to 12 years old and have clear ceiling heights of 24 to 32 feet. Less than 10 percent of the space has office finishes, which is typical for bulk warehouse properties. Lease terms provide for annual rent growth of 2 to 3 percent. Most of the leases run for ten-year terms.

In the event of an even more severe national downturn, rents will fall further and take longer to recover, averaging a decline of 1.3 percent per year. Driving the "downside" scenario is the forecast that negative absorption would be more pronounced in 2009 and 2010 and would extend into 2011. Correspondingly, availabilities would reach 13.1 percent by the end of 2011. At the end of 2013 the availability rate would be 160 basis points higher than in the base case. Taking into account all these trends and projections, the analysts assumed a market rent of $4.50 NNN in the pro forma analysis for the acquisition. The analyst's report was used by decision makers working for the investment firm, who decided to purchase the property.

The Omni Hotel was part of a waterfront revitalization in downtown San Diego.
Skip Juris

Chapter 7

Hotels and Resorts

In 2007, the U.S. hotel market included more than 48,000 hotel properties, with nearly 4.5 million rooms.[1] The hotel market is constantly changing, with properties being renovated, changing affiliation, or being repositioned to attract a wider source of demand, while others are retrofitted, closed, demolished, or converted to other uses. New properties are developed to follow demand generators or capture growth during economic expansion and when capital is available to developers. More recently, office buildings have been acquired, sold, and retrofitted as mixed-use projects that may include office, residential, and hotel uses. A property's affiliation, or "flag" (operating brand name), can change and with it the segment of the lodging market that it attracts. All these events demonstrate the importance of accurate market analysis.

It is easy to overestimate U.S. hotel demand. Americans like to travel; they took more than 2 billion person-trips of 50 miles or more in 2007 and just under 2 billion even during the recession of 2008. But it is important to remember that more than half of all trips do not generate an overnight stay. And of those that did, only 53 percent of overnight travelers in 2005 used a hotel or bed and breakfast lodging; 34 percent stayed with friends or relatives, and the rest were camping, traveling to second homes, or otherwise accommodated.[2] When economic conditions are favorable, the number of visitors coming to the United States from other countries (for both business and pleasure) dramatically increases, a trend that will continue as the global middle class expands.

The hotel market is segmented by price, location, amenities, and available services. Niche products abound. Resorts can cater to a single demand driver—proximity to a beautiful beach, a spa, a championship golf course, ski slopes, a nearby national park, or an exclusive pristine area. Typically, a resort developer would complement the single attraction with multiple recreation opportunities, such as a beachfront resort with its own golf course, tennis, facilities, and trails for horseback riding. Some travelers want to be pampered, while others want to wander and discover an authentic local experience. Also, brand loyalty is an increasingly important factor as travelers choose to stay where they can earn rewards or use their rewards from the various frequent-traveler loyalty programs.

Online reservation services, hotel chain Web sites, discount room aggregators, and tourism promotion groups have eclipsed the travel agent as a source of booking hotel rooms, with online bookings growing by double digits from 1998 through 2007 and by 9 percent in 2008. Travel industry research firm PhoCusWright (www.phocuswright.com) indicates in its *U.S. Online Travel Overview* that Internet bookings captured 35.5 percent of travel reservations in 2008, up from 31.9 percent two years earlier.

Hotels as Real Estate

Hotels are different from other investment property types in several ways:

- They are the only type of property that is rented by the night rather than leased by the year, or multiple years in the case of retail, office, and industrial buildings.
- For many hotels and resorts, business is seasonal; occupancy and achievable room rates fluctuate from month to month.
- A sudden downturn in the economy will have a negative effect on hotel occupancy long before its impact is seen in the apartment or office space market.
- A special event, such as a sports team's championship season, can substantially affect hotel occupancy and food sales.
- Hotels have various revenue generators—not only room sales but also meeting space and banquet rentals, restaurants, parking garages, and leased shops. According to PKF Consulting, which specializes in hotel consulting services, typical room sales for a full-service hotel accounted for only 68 percent of hotel revenues in 2007; food and beverage operations (restaurants, lounges, and catering) accounted for another 26 percent, and other operations generated the remaining 6 percent.[3] In contrast, apartments, office and industrial buildings, and shopping centers derive most of their revenue from leasing space. Reimbursements from tenants for utilities or real estate taxes are not profit-making ventures.
- Hotel corporations provide property branding, reputations, marketing resources, and operations expertise to individual properties for fees. Franchises backed by single or multiple investors can brand a hotel, but the management of the hotel must be approved by the hotel brand.
- Hotels are labor-intensive. Successful hotel management companies focus on controlling fixed and variable costs, as well as programs to maintain or increase occupancy, average daily rate (ADR), and other income-producing categories.

Because of the industry's complexity, hotel market studies are often conducted by analysts who specialize in the hospitality and travel industries. The market analyst is often called upon to conduct a site inspection; prepare demand projections; estimate operating income from rooms, food and beverage, and other sources; and detail operating expenses. Hotel analysts are also familiar with the fixed and variable operating expenses, which include staffing, operations, marketing, insurance, and taxes; they also focus on future capital improvements.

Product Types

Hotel development has followed paths taken by other types of commercial real estate in the United States. In the first half of the 20th century, most hotel development occurred in downtown areas where businesses were concentrated and where convention centers generated demand for thousands of room-nights. This segment continues to offer development opportunities as older properties are demolished or converted to other uses, and as tourism increases, commercial demand grows and convention centers expand.

As highway systems expanded and suburbanization spread, demand for hotel rooms followed the outward movement of employment and population—and continues to do so. A wide range of products, from budget to full-service hotels, can be found at key interchanges along the interstate highway system. New entertainment venues and outlet malls also draw limited-service hotel projects to the suburbs; suburban convention and exhibition facilities are yet another source of demand. Hotel development around airports has proliferated, catering to short-on-time business visitors and other travelers in transit. Including a hotel in a large business park is commonplace. Medical centers and universities often work with hotel developers to provide convenient rooms for their visitors and short-term teaching staff.

Table 7-1 shows the distribution of hotel properties in the United States by number of rooms at the end of 2007. The average hotel had only 93 rooms, and a majority (56.6 percent) had fewer than 75 rooms. The large convention, conference, and business hotels—those with more than 300 rooms—accounted for less than 4 percent of all properties but 20 percent of total room inventory.[4]

The following sections describe the major hotel categories. It is important for market analysts to understand that most hotels appeal to multiple consumer segments; a business traveler may select

Table 7-1
U.S. Hotels by Size, 2007

By Size	Properties	Share (%)	Total Rooms	Share (%)	Average Number of Rooms
Under 75 rooms	27,210	56.6	1,159,166	25.9	43
75–149	15,089	31.4	1,595,436	35.6	106
150–299	4,166	8.7	832,957	18.6	200
300–500	1,089	2.3	404,963	9.0	372
Over 500 rooms	508	1.1	483,669	10.8	952
All properties	48,062	100.0	4,476,191	100.0	93

Sources: Smith Travel Research; American Hotel and Lodging Association.

a more upscale lodging based on the location of meetings, traffic patterns, or a frequent traveler loyalty program and select a different type of hotel when traveling with family.

Classifying Hotels by Services Offered

Hotels can be classified as *full service* or *limited service*. Full-service hotels offer a wide range of services, including valet parking, luggage assistance, concierge services, gift shops, fitness centers, business centers, three-meal restaurants, and room service. Depending upon their price point, they may also offer spas. Many full-service hotels offer extensive meeting and banquet space, although that is not a requirement for this category.

Limited-service hotels encompass diverse property types and price points. They do not usually offer valet parking, luggage assistance, or concierge services but may provide compact fitness centers, business centers, and complimentary high-speed Internet access. Some limited-service brands have meeting space (usually less than 4,000 square feet) and three-meal restaurants on site. PKF Consulting refers to this type of limited-service property as "select service." Brands with these amenities include Courtyard by Marriott, Hilton Garden, and Hyatt Place.

Other limited-service hotel brands have very little meeting space and no restaurant; however, they usually offer a complimentary breakfast buffet. Casual restaurants are typically located nearby. Brands in this subcategory include Holiday Inn Express, Hampton Inns, and Comfort Inns.

Classifying Hotels by Physical and Functional Characteristics

Convention hotels have a minimum of 400 rooms and large (but divisible) meeting and banquet facilities. Such properties are often physically connected or adjacent to the convention centers. They usually include several eating establishments of varying styles and price ranges. Many also include a business center and substantial amounts of retail space. Large lobbies are needed to handle the check-in and check-out functions that occur in a concentrated period at the beginning and end of every convention. It is common for up to 10 percent of the guest rooms to be suites. Guests can use the living rooms of the suites as hospitality rooms, or the hotel can furnish them as meeting spaces for small groups.

Many convention hotels have set aside concierge floors for valued patrons or for those paying higher rates for concierge services. With controlled access, concierge floors offer separate check-in areas, lounges, extra in-room amenities, and complimentary snacks, beverages, and services. Concierge floors are also increasingly common in upscale properties that are not located near convention centers. Frequent guests who are members of the hotel chain's loyalty program earn the privilege of being assigned to the concierge floor.

Conference centers meet the guidelines of the International Association of Conference Centers (IACC). Many are branded, but others are privately owned and managed. Such properties tend to be located in the suburbs or exurbs, and they offer on-

site or nearby recreational amenities such as golf courses, tennis courts, and spas. They are used for high-end corporate training and sales meetings, as well as trade and professional association functions. Although many hotels market themselves as conference centers, only truly dedicated conference properties are designed to provide a setting free of distractions. Conference centers usually contain 200 or more guest rooms and a large number of dedicated meeting rooms and offer a full complement of audiovisual equipment, support services, and catering to make leaving the property unnecessary.

According to research by PKF Consulting conducted for the IACC, conference participants accounted for 70.2 percent of all occupied room nights at IACC member facilities, with leisure travelers accounting for 13.7 percent, individual business travelers for 10.5 percent, and transient guests for the remainder. Businesses are the largest source of demand, followed by academic institutions. Training and continuing education were the reasons most frequently cited for using a conference hotel (51.9 percent), followed by management planning sessions (25.6 percent), professional and technical meetings (9.2 percent), and sales meetings (8.2 percent).[5]

Guest units in *all-suite properties* consist of one or more bedrooms with a separate living area. They are much larger than typical hotel rooms. Suites usually have a mini refrigerator and kitchenette; in facilities designed for extended stays, the suite may be equipped with a full kitchen. All-suite properties typically offer complimentary cooked-to-order hot breakfasts and a complimentary cocktail hour, and they include an exercise room and business center. Meeting and banquet space vary greatly. Full-service properties of this type include Embassy Suites, DoubleTree Guest Suites, Marriott Suites, Sheraton Suites, and Radisson Suites.

Extended-stay hotels tend to be all or mostly suites and often include kitchenettes or even full-sized kitchens. Some offer complimentary breakfast and a limited dinner buffet, but they do not typically operate restaurants of any kind. Many will offer an evening reception featuring hors d'oeuvres and cocktails. A business center and fitness center are often provided, particularly among the higher-rated properties. Meeting space is usually limited. Typical brands in this category include Homewood Suites, Residence Inn, and StayBridge Suites.

The extended-stay hotel was developed to meet the needs of business travelers working in an area for more than a week; it also appeals to recently relocated corporate personnel. Many leisure travelers, especially families with children, also find these facilities desirable. All-suite hotels and extended-stay properties can be found in both urban and suburban settings and range from two-story buildings to high rises. The low-rise versions closely resemble apartment complexes.

Boutique or *specialty* hotels are small, intimate, urban, upscale, and trendy; great emphasis is placed on unusual interior design and room décor. Most have stylish bars and restaurants, which can be leased to a food and beverage operator. Although most boutique hotels are independent, a number of boutique chains have developed, including W Hotels, Kimpton Hotels, Hotel Indigo, and Morgan's Hotels.

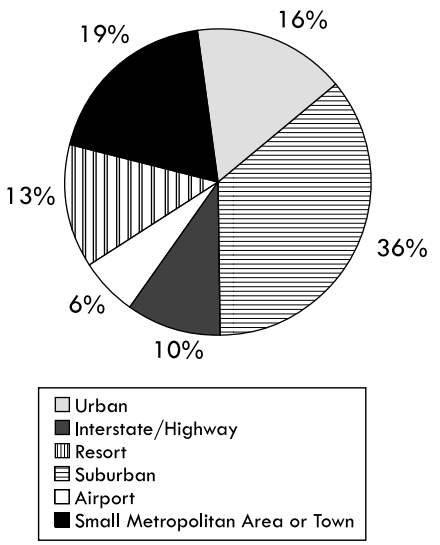
Bed-and-breakfast inns operated by individual entrepreneurs also appeal to a niche market, but they have even fewer rooms and do not offer a full array of services. They appeal to leisure travelers because of their historic character and ambience.

Resorts are often branded, but many are privately operated. They are similar to full-service hotels but are typically situated in a scenic area and either provide or are near activities that attract leisure travelers. Resorts generally offer an extensive menu of spa services and recreational activities. It is typical for resorts to have significant meeting space and to compete for group business. Like conventional hotels, they often provide ballroom and meeting space that can easily be converted to accommodate a number of different uses.

Classifying Hotels by Location

Another way to classify hotel properties is by location. *Urban* or *downtown properties* are located in the central business district or a densely populated neighborhood in a large metropolitan area. *Suburban hotels* are typically found at or near interchanges along heavily traveled highway routes or beltways in metropolitan suburbs. Examples are the White Plains submarket outside New York City, the Oak Brook area in suburban Chicago, or La Jolla, north of San Diego. Patronage at these facilities can be corporate- or leisure-oriented. As figure 7-1 shows, the suburban segment is by far the largest of all hotel locations, accounting for one-third of all

Figure 7-1
U.S. Hotel Rooms by Location, 2007



Sources: Smith Travel Research; American Hotel and Lodging Association.

properties and 36 percent of all hotel rooms in the United States in 2007.

Highway-oriented facilities in rural areas tend to be economy, budget, mid-priced, or limited-service operations. They cater to both price-sensitive business and leisure travelers. The hotel along the highway may be an intermediate stop on a long road trip or close to the driver's ultimate destination.

Airport-oriented hotels serve business visitors who want to get in and out of town quickly. Some are located on the grounds of the airport itself. These hotels are used primarily for business meetings, but there is secondary demand from travelers in transit, especially at airports that handle international flights.

Vacation/resort properties are located in tourist destinations. Demand is primarily generated by leisure visitors, but resorts are increasingly popular settings for conventions and conferences, corporate sales meetings, and executive retreats. They compete with convention hotels and conference centers for this segment of the meeting business. A resort hotel might feature golf courses, water sports, skiing, or spa facilities. Resort hotels have also been built in conjunction with theme parks, water parks, casinos, and other attractions. They usually include a range of restaurants, meeting rooms, and banquet space.

Depending on the climate of the resort area, lodging demand may be prone to seasonality, with distinct peak and off-peak periods. Peak periods generally yield maximum room rates and high occupancy levels. Off-peak periods are characterized by lower room rates and reduced occupancy levels. In certain market areas, intermediate periods marked by moderate demand are referred to as "shoulder" seasons.

Classifying Hotels by Price

Luxury hotels, located in large metropolitan areas or high-end resorts, are frequented by visitors who are willing to pay a premium price for accommodations. They typically have fewer than 300 rooms and cater to corporate travelers, convention delegates, and wealthy individuals, including overseas visitors. Such hotels are distinguished by high-quality furnishings, amenities, and a high degree of personal service. Many luxury properties house fine restaurants and shops. Although luxury hotels may accommodate some meeting and banquet business, they do not target large groups. Examples of luxury chains include Ritz-Carlton and Four Seasons.

Upscale commercial hotels are full-service properties that target individual business travelers during the week and leisure travelers on weekends. While meetings may represent an important part of their business, the groups that are served generally are smaller than those that use convention hotels. Compared with convention hotels, most commercial hotels provide less public space and a less extensive array of food and beverage outlets. Chains such as Hilton, Marriott, and Sheraton all operate hotels of this type in both urban and suburban settings, as well as larger properties that cater to conventions.

Mid-price properties include most of the limited-service chains. They do not provide the same array of personal services as luxury or upscale properties, and they have limited shopping, dining, exercise, and meeting and banquet facilities. Business and leisure travelers who want comfortable accommodations in convenient locations but who do not want to pay for services and amenities they do not use are the target market for mid-price chains.

Budget or *economy* hotels offer little besides rooms. Such properties usually do not have business centers or meeting space, and their fitness facilities are very limited. They do not operate restaurants but may serve a complimentary continental breakfast in a small common area. Budget hotels often locate close to shopping centers or freestanding eating and drinking places. This property type competes almost exclusively on the basis of price. Budget hotels cater to cost-conscious business travelers, price-sensitive vacationing families, and long-distance drivers. The first such hotels were built along highways outside metropolitan areas, but they are now frequently seen in suburban areas, near airports, and, even in some downtowns. Rooms in budget hotels are typically accessed by exterior corridors or directly from the parking lot, although modern properties have secure internal corridors. Typical economy chains include Motel 6, Super 8, Red Roof, and Microtel.

Table 7-2 lists major U.S. hotel chains by service level and price points. Major hotel companies are always looking for new ways to serve their customers; as a result, new concepts are frequently announced and test-marketed. Examples of new hotel brands (not shown in table 7-2) include NYLO (described as a "loft boutique" property), InterContinental's Indigo, Starwood's Aloft and Element, Hilton's Denizen, and Marriott's Edition. In the first half of 2009, only two of these brands had more than 25 locations. The recent recession and the lack of available financing have slowed plans for expanding these brands. Some chains grow their brands by acquiring and reflagging existing hotels in established locations rather than building from the ground up.

Other Types of Hotel and Resort Properties

A number of other lodging types exist that resemble hotels in some ways but are more like residential properties in others.

Timeshares

For middle-income families who cannot afford to buy a second home, owning a timeshare (and banking or trading within multiproperty systems) is a way to experience different worldwide destinations at a relatively low cost. The traditional timeshare system, in which a buyer bought a specific week in a specific unit at a specific property, has been mostly supplanted by a more flexible system, in which owners buy points that can be used for different weeks at various locations. Long-established hotel management companies, such as Wyndham, Marriott, Hilton, Hyatt, and Disney, develop and market timeshare resorts. From management's perspective, a timeshare operates like a resort hotel, except that visitors come for intervals of at least a week. However, buying a timeshare is not buying real estate; the purchaser does not receive a deed.

According to a study prepared for the American Resort Development Association by Ernst & Young, there were 1,641 traditional U.S. timeshare resorts at the end of 2007, offering over 180,000 units. The average timeshare resort has 110 units. An estimated 4.7 million households owned one or more timeshares, accounting for 4 percent of all American households. The total number of shares was 6.5 million, with many households owning more than one. Over 550,000 shares were sold in 2007, with an average price of $19,216. Sales volume and price per week grew steadily between 2003 and 2007, only to fall during the economic downturn. As with other visitor accommodations, performance is strongly tied to the health of the national economy; offshore buyers also generate demand. By far the largest number of resorts is found in Florida; California is a distant second. While beachfront resorts are the most popular (accounting for 24 percent of all properties), many options allow for varied vacation experiences—lake or riverfront properties, ski resorts, golf communities, casinos, and urban settings.[6]

Nearly 70 percent of buyers are new owners (resale liquidity has always been a drawback for the industry). Timeshares are well established throughout the world. The United States and the Caribbean account for 50 percent of worldwide sales, but timeshares exist in more than 70 countries.[7]

Fractional Ownership

A relatively new model is the fractional ownership resort. The buyer owns a third or a quarter share of the unit and has use of the property for designated weeks or months. All buyers in the unit share the association fee. For those who want the benefits of a deeded interest in vacation property, fractional ownership offers the opportunity to buy a share in a second home without the full ownership cost for a property that will be used only part time.

Table 7-2
North American Hotel Chains by Type

Luxury Full Service	Upscale Full Service	Mid-Scale Select Service	Mid-Scale Limited Service	Economy/ Budget	Extended Stay
Fairmont	Crowne Plaza	Best Western	AmericInn	America's Best Value Inn	Candlewood Suites
Four Seasons	Delta	Clarion	AmeriSuites	Days Inn	Extended Stay America
InterContinental	Doubletree	Courtyard by Marriott	Baymont Inn	Econo Lodge	Hawthorn Suites
JW Marriott	Embassy Suites	Four Points by Sheraton	Comfort Inn	Howard Johnson Express	Homestead Suites
Loews	Hilton	Hilton Garden Inn	Country Inn & Suites	Knights Inn	Homewood Suites
Millennium	Hyatt	Holiday Inn	Drury Inn	Microtel Inn	Residence Inn
Sofitel	Marriott	Howard Johnson Plaza	Fairfield Inn	Motel 6	Staybridge Suites
Ritz-Carlton	Omni	Hyatt Place	Hampton Inn	Red Roof Inn	TownePlace Suites
W	Radisson	Quality Inn	Holiday Inn Express	Rodeway Inn	
	Renaissance	Ramada Inn	La Quinta	Super 8	
	Sheraton		Ramada Limited	Travelodge	
	Westin		Sleep Inn		
	Wyndham		SpringHill Suites		
			Wingate by Wyndham		

Source: J.D. Power and Associates.

Condominium Hotels

Condominium hotels are a hybrid product combining hotel services and amenities within a condominium ownership structure. The buyer purchases a room or suite not a fractional interest. The building is managed by a national or regional hotel operator that places the unit in the rental pool to be booked as a hotel room when the owner is not using it. Unit rental income is split between the owner and the hotel management, and the management firm typically charges a fee to market and maintain the unit. The management firm keeps any income from restaurant operations or retail shop rental. As in residential condominium properties, the buyer has a deed and can obtain a mortgage. The owner of the unit also pays a monthly homeownership association fee. Condominium hotels can be found in both urban and resort settings. They are attractive to developers because deposits and signed contracts reduce equity requirements for construction loans. Additional cash comes in when the building is completed and ready for occupancy; a conventional hotel takes much longer to generate cash.

For the consumer, the condominium hotel and the fractional ownership resort both offer the advantage of deeded real estate ownership. However, sales can grind to a halt when mortgage financing for second homes is difficult to obtain at reasonable interest rates. Complications can also occur if buyers fail to make their mortgage payments; foreclosed units are usually withdrawn from the rental program, reducing potential income for the hotel operator. Additionally, owners of condominium hotels may not want to contribute additional funds to renovate the units to the hotel operator's specifications or participate in the property improvement program.

Preparing the Market Study

Hotel market studies require the analyst to examine six aspects of the property and the market:

- access and proximity of the site to demand generators such as tourist attractions, convention facilities, airports, corporate headquarters, or universities;
- the number and types of businesses within the market area and whether they offer a growing source of room demand;
- the sources and strengths of demand segments (business travelers, convention and meeting visitors, tourists);

- the attractiveness of competitive properties with respect to location, access, amenities, and management;
- the outlook for travel; and
- unique local conditions and trends.

In some ways, hotel analyses are similar to those conducted for other property types. As with those studies, the hotel market analysis includes an overview of metropolitan-area economic conditions and an evaluation of site suitability. However, some important differences exist:

- The demographic characteristics of households in the surrounding area are not critically important to a hotel market analysis; however, the labor pool, surrounding area, and modes of transportation are important factors in evaluating an area. It is sufficient to demonstrate to the hotel investor that the surrounding area is stable, is safe, and generates demand to support a hotel.
- It is important to note specific local businesses, convention facilities, tourist attractions, hospitals, universities, and other "draws" that bring travelers to a hotel trade area.
- For a resort, climate, natural features, and recreational amenities are the draws, but reliable, convenient air travel (to what are often remote locations) is also important.
- There may be few truly competitive properties in terms of size, age, facilities, and target market segment. It is important to have accurate information on facilities, amenities, and operating performance.
- In the case of a resort or a conference center, the most important competitors could be very far away.

Evaluating a Site

Downtown hotels are increasingly becoming elements of mixed-use developments that may include condominiums, office space, and retail centers. Although downtown business hotels usually contain their own restaurants, they also like to be near other well-regarded eateries—places that would appeal to clients or customers. For properties that cater to conventions, proximity to the convention center is obviously very important. Many convention hotels benefit from direct connections by covered walkways, but this is not always possible. Freestanding business-oriented properties want to be close to well-occupied office buildings, ample parking, and the best downtown shopping and entertainment venues.

Suburban hotels, like shopping centers, seek locations near traffic generators (corporate headquarters, office parks, tourist attractions). Sites need to be easy to reach, clearly visible from nearby highways, and big enough to provide sufficient parking for staff as well as overnight guests. Proximity to restaurants and shops is also desirable. Like their downtown counterparts, suburban hotels are increasingly part of mixed-use developments.

Determining the Competitive Market Area

For most types of real estate development, the market area for supply and demand is either identical or overlapping. For hotel development, however, the two market areas are distinctly different, with considerable variation in geography. For example:

- The competitive supply for a convention hotel is the inventory of hotels with a similar price range and location in relation to the local convention center—perhaps a ten-minute walking distance or a short cab ride away. But the primary demand for rooms at lodgings near the convention center comes from meeting attendees and vendors from across the country; many meetings also draw affiliates from overseas, which is one reason why large conventions are held in key cities that are easily accessible from airports in domestic and foreign cities.
- A typical beach resort hotel with a regional draw would compete with similarly priced and amenitized hotels along the same strip of beachfront. Patrons might be drawn from a nearby metropolitan area or several surrounding states. But a world-class property on a Caribbean island, for example, will draw patrons from across the United States, Latin America, and Europe. Many top Asian resorts draw from a global clientele.

To determine the boundaries of the market area, the analyst needs to identify four items: the location of competitive hotels; the proposed lodging's likely major sources of business; the proximity and scope of these demand generators; and trends in travel patterns for vacation, commercial, and convention visitors to the metropolitan area as well as the extent to which each demand segment is attracted to the local area. For a business hotel, a

Proximity Hotel, in Greensboro, North Carolina, is the first hotel to achieve LEED Platinum certification.
Mark File

majority of guests will be visiting nearby corporate headquarters or regional offices, multitenant office buildings, manufacturing facilities, or government agencies. For a resort hotel, demand generators would be nearby theme parks, ski slopes, beaches or lakes, golf courses, sports facilities, and the like. Pleasure visitors generate the largest number of room nights for resorts, but these facilities also compete for business meetings, which can be very profitable.

Analyzing Demand

Room demand is affected by local, regional, and national economic trends in both the household sector and the business community. Employment growth and income gains affect consumer confidence, which in turn influences leisure travel demand. Business travel policies are periodically revised as profitability rises and falls. The willingness of managers to authorize staff travel for meetings and conventions is especially sensitive to economic conditions, as such trips are often considered to be overhead items or benefits that are curtailed when the economy is weak. Historical occupancy patterns and room rate changes in a particular hotel market make a good proxy for how demand shifts in response to economic changes.

Interviews, telephone conversations, and surveys are important for getting a handle on the various sources of demand. These tasks will vary depending on the type of hotel property being analyzed. Contacts may be made with a variety of people:

- staff at local convention bureau and tourism promotion agencies, and state tourism bureaus;
- meeting planners at trade and professional associations, large government agencies, and nonprofit, labor, and civic associations; and
- corporate travel managers.

These interviews are designed to identify sources of travel demand and characteristics of that demand (number of travelers, length of stay, typical group

size, seasonality of tourists and convention delegates, etc.). Note that convention and visitor marketing agencies sometimes overstate tourist statistics. In addition, they frequently do not maintain a research program that adequately quantifies travel patterns.

To better understand the leisure segment, the market analyst may consider surveying wholesale tour operators, travel agents, and event planners that specialize in group, corporate, or incentive travel in feeder cities. The purpose of the survey is to better understand lodging needs, perceptions of the area, frequency of visits to it, primary reasons for visiting, typical group size, and seasonality of travel plans. It is important to understand how leisure visitors view the location: What attractions would generate overnight stays? What amenities do they look for in the lodgings they frequent? What price points are typical?

From these interviews, the researcher will get a consumer's-eye view of how the existing properties serve the market. The researcher should learn where employees, customers, and suppliers stay; why they choose one hotel over another; how often they require meeting facilities; and what the size and nature of their meetings are. If possible, the researcher should discuss the proposed hotel to size up the likelihood that the interviewee will use it. Corporate users or associations have varied location preferences when booking rooms for individual business travelers or group events.

In addition, the analyst will want to examine trends in tourism activity as reflected in ticket sales or the number of admissions at major attractions, such as museums, sporting events, and theme parks in the market area. Conducting telephone interviews with staff at such places will be helpful in determining whether these places draw patrons from out of town, and if so, whether those patrons stay overnight.

Additional background information includes airport arrival and departure statistics, looking at growth rate and seasonality. When evaluating the potential for an airport-area hotel, the analyst should determine the number of flyers who are changing planes. Data on airline arrivals must be adjusted to reflect layovers or transfers that do not normally result in overnight stays.

Other indicators of growth should be determined. New business formations and relocations, employment growth, office and industrial space absorption, population growth, and commercial building permits can all be factors to consider in looking at the growth of demand. Because collecting demand information can be very labor-intensive, the analyst should focus on the economic data most relevant to the subject property. Not all trends need to be examined for every market study. For example, a study for a limited-service hotel located ten miles from the convention center does not need detailed information on convention booking trends or seasonality. A study for a property being built adjacent to a medical center needs information on overnight stays by patients' family members and business visitors; airport arrival and departure details are not necessary.

Trends in the performance of the hotel inventory over time, both in the metropolitan area and in the local competitive market area, are helpful in gauging whether demand is growing. These data can be purchased from consultants such as PKF Consulting or Smith Travel Research. It is important to look at how room demand has changed over the preceding three to five years. Increases in occupancy and room revenue per available room (RevPAR) are a good indication that demand is growing—especially in areas where new supply has been added.

Demand may shift because of developments in transportation, technology, or consumer habits. A thriving hotel cluster at a key highway interchange may lose dominance when a new interchange is built down the road and new competitive rooms are added. Hotels adjacent to an existing convention center will become less desirable when a new convention center is built, even if the new center is only a few blocks away. Older hotel submarkets can experience a renaissance. Miami Beach is an example of a thriving tourist destination that went through a long decline and then rebounded when the historic architecture of South Beach became a new draw for tourism. Old hotels were restored and new ones were added. Downtown Las Vegas, once considered to be seedy and undesirable for upscale tourists, has also seen reinvestment.

For budget and economy properties, the demand analysis will be more limited. Traffic counts help in determining the potential to attract travelers who will make an overnight stop on their way elsewhere. For these product types, analysis based on traffic counts and performance of similar properties in the area usually suffices. Major chains typically

Table 7-3
Characteristics of Business and Leisure Room Occupants, 2007

Characteristic	Business	Leisure
Number of room occupants	One adult (55%)	Two adults (53%)
Average household income ($)	89,600	78,800
Share of occupants		
Traveling by auto (%)	—	78
Making advance reservations (%)	91	86
Staying only one night (%)	33	42
Average room rate per night ($)	119	109

Source: American Hotel and Lodging Association.
Note: — = Not available.

devise rules of thumb for estimating the minimum number of vehicles per day required for a new hotel outlet. They also consider whether surrounding uses are desirable amenities for the proposed hotel. Limited-service properties that lack their own restaurants will be more successful if they are located near freestanding food service establishments or shopping centers.

Demand Segments

According to the American Hotel and Lodging Association (AHLA), business travel accounted for 44 percent of hotel room night demand in the United States in 2007, with 56 percent of that demand generated by leisure travelers. Leisure travel is a growing share of the market as more business is transacted by e-mail and videoconference.

Demand segments are defined in terms of the purpose of the trip, seasonality, length of stay, price sensitivity, nature of the facilities and amenities required, and number of rooms required. So, measuring demand is a complex process:

- Some pleasure travelers are price sensitive; others are not. They may travel on their own, or as part of a group tour. They may stay at multiple hotels on a single trip, especially if they are traveling by car.
- Vacationers include singles, couples, and families with children. Their space requirements are different.
- The business traveler may be calling on a customer or going to a sales meeting. He or she may want to be close to their destination, near entertainment, or close to the airport.
- Women travelers are a growing share of the business travel market, and their hotel preferences are often different from those of men in the same age and occupation.
- International travel to the United States has been growing in recent years. When the dollar has been weak against currencies such as the euro or yen, visitors are eager to come to the United States, not only to visit tourist attractions but also to shop. The worldwide economic recession that began in 2008 has led to declines in international visits.

The characteristics of the business and leisure traveler are quite different, as shown in table 7-3. Some of the major demand segments are described in the following sections.

Commercial or Business Market

The commercial market segment, made up of individuals and groups of both domestic and international business travelers, typically represents a major source of demand for downtown and suburban upscale hotels and a minor source for resorts. Business travelers include executives and managers at all levels, sales representatives, and potential employees going to a job interview. Government agencies and nonprofits also have traveling personnel, but they are limited in how much they can spend for accommodations.

Most domestic business trips are only one or two nights in duration, from Monday through

Thursday nights. However, business travelers may extend their stay over a weekend in a city or resort location with amenities.

A crucial criterion in the selection of business lodging is location. Primary location considerations include proximity to centers of business activity and ease of access to and from airports. Although 66 percent of business travelers are men, women are a growing share of the market. They want to be sure that their accommodations are secure, and attentive service is also important. Seasonality and price sensitivity are less significant factors in predicting business travel demand than in the leisure sector.

The business travel market has several subsegments of demand:

- *Corporate and commercial individual travelers.* This demand segment consists of those whose purpose in traveling relates solely or predominantly to their jobs or businesses. They book their own hotel arrangements through corporate travel departments or travel agencies, or on their own by phone or Internet. Their employer may or may not have negotiated preferred rates with major hotel chains. If convenient—and subject to their employers' policies—individual business travelers may chose a hotel based on membership in a frequent traveler loyalty program.
- *Corporate groups.* This segment is distinguished from the corporate individual segment by virtue of booking rooms on a block basis. The specific purpose of travel is likely to be a company-sponsored meeting or training session in the hotel or at a nearby location. Because of the nature of the clientele and the source of business, room rates for this segment are negotiated and specify the number of rooms booked and the time of year that the rooms are available.
- *Convention and association groups.* Conventions and association meetings can have thousands of attendees, many of whom travel as corporate groups or book rooms on a block basis through the sponsoring organization. A dominant trend in the operation of resort hotels has been the marked shift to conference business as a major contributor to resort occupancy. Although a limited number of resort hotels rely almost entirely on visits by independent travelers, most have mounted major efforts to attract conferences and business meetings as an economic necessity.
- *Contract demand.* Airlines contract with hotels for crew lodging and emergency housing for stranded travelers. They typically reserve a block of rooms for this purpose and negotiate a very low rate. Businesses with employees who travel to perform low-budget jobs also frequently negotiate contract rates with hotels, which usually are heavily discounted. Construction crews, disaster relief workers, and truck drivers are typical types of contract guests.
- *Government and military personnel.* Government workers and members of the military travel with modest per diem allowances. They gravitate to establishments that offer special discounts to government and military personnel.
- *Extended stays.* As indicated earlier, hotels can serve as temporary residences for executives, corporate employees, or others who have relocated to an area and need lodging until they can make permanent living arrangements. Extended-stay facilities also house consultants, auditors, trainees, or other workers assigned to projects lasting several weeks or months. Families often accompany relocating employees. Rooms may be rented by the week or the month at a more attractive rate than for short-term stays. A number of hotel chains, such as Marriott's Residence Inn, Hilton's Homewood Suites, and Hyatt's Summerfield Suites specialize in this market, with suites that include living areas, small equipped kitchens, and apartment-like amenities. These chains also rent rooms to individual business or leisure visitors subject to availability.

Tourists and Leisure Travelers

This demand segment encompasses most pleasure travelers and family groups. Lengths of stay vary widely from single-night stopovers a day's drive from home to vacations lasting a week or longer at a resort thousands of miles from home. Market segments include the free independent traveler (FIT) market, the group market, and the wholesale market:

- *FIT market.* The FIT market segment consists of destination tourists and other transient travelers. Destination tourists represent visitors who have selected a vacation destination and arranged for their accommodations either directly with the hotel, online, or through a travel agent. Because individuals book their own accommoda-

tions, few or no discounts are available beyond those offered to loyalty club members.

A range of sight-seeing opportunities and on-premise recreational amenities and facilities attracts the FIT segment. In addition, a strategic location near such recreational and entertainment centers as theme parks, world-class golf courses, snow skiing areas, water sports venues, shopping opportunities, museums, historic sites, and spectator sports facilities can be important in marketing effectively to this segment. Peak seasons and weekends account for significant FIT demand. The FIT market encompasses many demographic segments, including singles, couples, and families—all in a variety of price ranges.

- *Group market*. The group market for leisure travelers includes people attending weddings and other social and family events. Event organizers reserve blocks of rooms at discounted rates.
- *Wholesale market*. The wholesale market segment extends to tourists who purchase discount packages that include any combination of hotel, airfare, food and beverage, automobile rental, tours, and discounts at retail outlets. Tour operators typically negotiate room rates with a range of properties on an annual basis. The negotiations specify the number of rooms booked and the time of year that the rooms are available. Accordingly, the rates paid can be much lower than for travelers in other demand segments.

Discount packages are popular because of the assurance that travelers' full range of needs will be addressed without unexpected expenses. Some consumers purchase discount packages based on the price/value relationship, while others like the convenience of paying just once for all their vacation needs. Like the FIT market segment, the whole-sale market segment looks for the availability of a range of on-premise amenities coupled with a strategic location near recreational, cultural, and entertainment centers.

- *Package travel sold online*. Online travel sites such as Expedia, Travelocity, and Orbitz, as well as "last minute" or "deep discount" specialists, work to identify available flights, rooms, and rental cars. Other Web sites, such as Hotels.com, specialize in lodging, offering rooms at both chain and independent properties. (Not all properties in each chain make their surplus rooms available to these sites.) Because hotel chains saw their share of direct bookings erode to the online discounters, many now guarantee that the rates available on their own Web sites will be comparable to or lower than those offered by the online aggregators.
- *Weekend getaway guests*. Downtown and suburban hotels that cater to weekday corporate guests pioneered the getaway concept to bolster sagging weekend occupancies. The practice has been adopted by many nonresort hotels. Typically guests are offered a package plan that includes the room, some meals, entertainment of some sort, and other perks. Rates often are discounted substantially. In this vein, many resorts offer lower rates on weekdays than on weekends.

A hotel might serve more than one market segment, potentially increasing its occupancy and making the project less susceptible to market downturns. However, broadening the target market might cause an increase in competition from other hotels. It might also weaken the product's appeal to the market segment originally targeted. Some examples of crossover niches include amusement park hotels, such as those at Disney World, which combine family entertainment with conference business, and Las Vegas casino hotels, which combine gaming and adult-oriented shows with family-oriented activities.

Commercial hotels often handle guest overflow that cannot be accommodated at convention hotels. By contrast, convention hotels can attract leisure visitors during the summer months or the Christmas holidays, when few conventions are held.

Table 7-4 provides an example of how the Greater Philadelphia Tourism Marketing organization (www.gophila.com) analyzed change in Center City (downtown) room demand by source of business in 2007 and 2008. The table shows that Center City's biggest sources of room demand—business visitors—declined during this period, while demand from the individual and group pleasure segments grew as a share of total room nights. Market studies need to identify such trends and discuss their implications for development and investment.

Fluctuations in Demand

Annual room occupancy rates vary considerably from month to month by region, season, and product type. Of all demand characteristics, seasonal

Table 7-4

Change in Room Demand by Source, Center City Philadelphia, 2007 to 2008

Source of Demand	Occupied Rooms 2007 (000s)	Occupied Rooms 2008 (000s)	Change (%)	Share of 2008 Demand (%)
Individual leisure visitor[a]	685	705	2.9	27.2
Group leisure[b]	268	285	6.3	11.0
Transient business[c]	930	889	–4.4	34.3
Convention and group business[d]	796	713	–10.4	27.5
Total Hotel Demand	**2,679**	**2,592**	**–3.2**	

Sources: PKF Consulting; Greater Philadelphia Tourism Marketing Corporation (www.gophila.com).
a. Persons traveling alone or in a group of fewer than ten.
b. Ten or more persons traveling together for leisure purposes.
c. Individual business travelers, including government and airline crews.
d. Groups of ten or more traveling for business meetings, either at a convention center or a hotel.

fluctuation in demand is the one most frequently overlooked.

Business travel remains relatively constant throughout the year, whereas the volume of pleasure travel changes with the seasons, peaking in the summer quarter when many families take vacations. In the United States overall, August is the month of peak hotel demand. June is usually second, followed by October, a popular month for meetings and conventions. The demand for hotel rooms reaches its lowest point in December, when business travel declines during the holiday season. Local occupancy peaks and ebbs might vary considerably from national ones.

Seasonal profiles for particular geographic areas tend to relate to weather. For example, the hurricane season brings the lowest occupancy rates in the Caribbean. The seasonal fluctuations in demand in some resort destinations are so extreme that some hotels stay open for only part of the year. But the purely seasonal resort has become a rarity today. The most successful resorts have transitioned from seasonal to year-round operations by identifying market segments that could be attracted in their off seasons. For example, ski resorts have added recreational amenities such as golf courses, spas, and events like film festivals to attract summer tourists. Others have pursued group meeting business when skiing is not in season.

In markets that depend on business visitors, demand can also fluctuate by the day of the week. In the example for Philadelphia (see table 7-4), where tourist demand is growing, Saturday nights show the highest room occupancy rate (80.5 percent), and Sunday night is the slowest day of the week (only 54.1 percent in 2008). Weekday occupancy peaks on Tuesday and Wednesday.[8]

Measuring Demand Growth

Knowing the sources of demand and its seasonal patterns in a given market is a beginning. But the analyst must evaluate the potential for a new hotel based on growth in economic activity, including new business activity generators, commercial and industrial development, new tourist attractions and recreational development, and new construction and expansion of convention centers and airports.

Analysts who specialize in the lodging industry stay informed about trends in recreational activity participation (such as golf or skiing); visitation at various types of museums, theme parks, and sports venues; and the extent to which these activities generate overnight hotel stays. As to destinations, there is growing interest in "green" travel, culinary vacations, exotic destinations, and adventure travel.

Hotel operators must also keep abreast of changes in technology (for example, the need for docking stations for personal communications devices and the reduced demand for business center services). New features are often introduced first in upscale properties, but they eventually make their way down to more modest accommodations. For example, in the mid-2000s, many properties focused on pampering guests with new, more luxurious bedding, a trend that has since trickled down to middle-priced, limited-service hotel chains.

Existing Competition

An analysis of the inventory of the existing competitive lodging supply in the market area helps predict the likely success of a new lodging facility. For each existing and proposed facility that—because of its location, size, and price points—will compete with the subject hotel, the analyst should quantify the number of rooms, location, affiliation (chain or independent), orientation (convention delegates, business travelers, vacationers, etc.), amenities, average daily room rate, average annual occupancy, and competitive strengths and weaknesses.

Hotels have four key indicators of market performance:

- *Occupancy*: Percentage of available rooms actually sold.
- *Average Daily Rate*: A measure of the average rate paid for rooms sold, calculated by dividing room revenue by rooms sold.
- *Revenue per Available Room*: Total guest room revenue divided by the total number of available rooms. RevPAR differs from ADR because RevPAR is affected by the number of unoccupied available rooms, while ADR shows only the average rate of rooms actually sold. Occupancy × ADR = RevPAR.
- *Revenue per Occupied Room (RevPOR)*: Used in the conference center segment of the hotel market, RevPOR reflects the importance of revenue from food and beverage sales, equipment rental, and other elements of conference contracts in determining property performance.

Interviews with hotel managers can be particularly important in understanding how each hotel competes within its market. Interviews should include questions regarding the strengths and weaknesses of their property and those run by competitors. Although property managers may be less than candid when discussing their weaknesses, they have no reticence in discussing those of their competitors. Other important data to gather include information about the most recent renovation and any planned changes to the property that might alter its future competitive position. Each property representative should be asked which hotels he or she considers to be competitors. The competitive set initially selected by the researcher should hold up after discussions with the property representatives. A researcher may discover that a property thought to be competitive is not considered to be so by other hotel managers. Or interviews may reveal a competitive hotel that at first did not appear to compete with the project.

Analysts should also verify the information contained in secondary data by interviewing knowledgeable sources, if possible. It is also useful to ascertain the property's anticipated performance for the current year. The degree of candidness will vary from property to property. In general, the more professional the management is, the more comfortable it is with sharing information.

For many of the largest hotel markets worldwide, quantitative information on hotel size, room rates, occupancy, and RevPAR for individual properties can be purchased from sources such as PKF Consulting or Smith Travel Research. These sources also aggregate information for all properties in a given submarket. In some cases, data can be sorted for different types of hotels—by size or price points. As with other property types, it is important to field-check hotel information obtained from secondary sources to be sure that the inventory is complete and up to date.

In small metropolitan areas or rural counties where purchased data are not available, similar information may be obtained from state or local hotel associations. However, submarket averages may not be available; the market analyst will need to interview managers at those properties deemed most competitive by virtue of location, price points, and services offered. The researcher should ask if managers will share operating information, including occupancy and average room rate information for at least the past few years (up to five years if possible).

Table 7-5 provides an example of how supply data should be presented, again using the Philadelphia area. The table shows aggregate information for the city as a whole, two submarkets, and four suburban counties. It shows that Center City properties achieve the highest average daily room rates but that occupancy is slightly higher in the Airport/Stadium area. To arrive at an average for the entire Philadelphia market, performance in each of the submarkets is weighted by the number of rooms in each area (not shown in the table).

Future Supply

Significant additions to supply can quickly change market performance, so the analyst will also need

Table 7-5
Greater Philadelphia Hotel Performance Indicators, 2008

	Occupancy Rate (%)	Avg. Room Rate ($)	RevPAR ($)
City of Philadelphia	70.3	158.33	111.33
Center City submarket	71.0	172.55	122.44
Airport/Stadium submarket	71.5	111.10	79.40
Bucks County	61.5	99.10	60.93
Chester County	63.5	120.29	76.20
Delaware County	66.4	96.30	63.99
Montgomery County	60.0	117.75	70.61
Total, Greater Philadelphia	65.8	133.48	87.83

Sources: Smith Travel Research; Greater Philadelphia Tourism Marketing Corporation (www.gophila.com).

to find information about properties that are under construction or in the planning pipeline.

After the existing lodging market is clearly understood, the analyst needs to look to the future. Are any changes occurring in the market that would either benefit or harm the prospects of the project? Competitive interviews may have revealed information about planned or rumored developments. The researcher should try to determine the likelihood of any rumored development actually being built, because not all planned developments will actually be constructed. Full-service and center-city properties in particular are much more difficult to bring to fruition than suburban, limited-service properties. An important factor in assessing the probability of a planned hotel is the sponsor of the project. If it is an experienced hotel developer with a proven track record, the project's completion is more likely than if the sponsor is an individual or organization with no experience developing hotels. The analyst will need to determine whether building permits are on file for new properties.

The researcher needs to understand how far along such projects are in the development process. Most property sponsors claim their project is imminent when it is often far from certain. Do they own the site or just have an option? Have they had a market study prepared? How far along are they in the design process? Do they have a financing commitment? From whom? Both permanent and construction financing? Is their equity in place? Often, sponsors claim that a project is financed and ready to go; they "just" need to line up their investors. Many projects fail at this stage.

If it is determined that a project is likely to be built within a period that will affect the proposed project, the researcher must evaluate the new property's likely competitiveness with the proposed subject. Will it be similar in concept, facilities and location? To the degree that it varies from the subject, its competitiveness may be significantly diminished.

Hotels are attractive land uses from the perspective of municipal officials. Many states and localities levy room sales taxes, which can be a significant source of revenue in addition to real estate taxes. Hotels also draw visitors who support local stores and restaurants. A desire for nonresidential tax revenues can result in new hotel plans being approved without consideration of whether demand is sufficient to support the hotel. Overbuilding of low-rise budget and limited-service properties can easily occur along highway corridors or in suburban business nodes where submarkets cross municipal boundaries.

As is seen in the case study for a proposed downtown hotel in Austin, Texas, demand and supply parameters are not mutually exclusive. In a supply-constrained area, real demand for hotel rooms may be lost for lack of suitable rooms. Demand in a given submarket can be categorized in one of three ways:

- *Demonstrated demand*: demand that can be quantified as existing occupancy levels at the competitive hotels;

Table 7-6
Penetration and Yield for a 300-Room Hotel

	Average Daily Rooms Available		Average Daily Rooms Occupied		Occupancy Rate (%)		Average Daily Room Rate ($)		RevPAR ($)		Performance of Subject (%)	
Year	Market	Subject	Market	Subject	Market	Subject	Market	Subject	Market	Subject	Penetration	Yield
2007	1,500	300	945	165	63	55	120	97	75.60	53.35	87.3	70.6
2008	1,500	300	995	168	66	56	123	97	81.59	54.32	84.4	66.6
2009[a]	1,500	300	920	155	61	52	120	95	73.60	49.08	84.2	66.7
2010[a]	1,500	300	940	160	63	53	119	95	74.57	50.67	85.1	67.9
2011[a]	1,500	300	980	169	65	56	121	97	79.05	54.64	86.2	69.1
2012[a]	1,700	300	1,090	172	64	57	124	98	79.51	56.19	89.4	70.7
2013[a]	1,700	300	1,120	178	66	59	126	102	83.01	60.52	90.1	72.9

a. Projected.

- *Unaccommodated demand*: demand that seeks rooms in the competitive market but must use properties outside the area because of capacity constraints; and
- *Created demand*: demand that does not presently seek accommodations in the competitive market but could be persuaded to do so through additional capacity, new affiliation marketing efforts, unique facilities, etc.

The ultimate result of the market analysis process is the identification of an opportunity—that is, currently underserved market demand—or a new concept that the experienced analyst believes can be successful.

Projecting Performance

Once the competitive projects have been analyzed, the performance of the subject property should be projected. The most commonly used method is fair-share analysis, in which a percentage of market capture is estimated for the subject based on the number of rooms in the subject divided by the total number of rooms in the market. Projected market share must be tempered by qualitative factors, such as location, quality, and reputation of the operator. The subject location and the proposed hotel (or one being evaluated for acquisition or repositioning) should be evaluated relative to its competitors with respect to many factors:

- franchise affiliation ("flag");
- proximity to demand generators;
- attractiveness of the building and its immediate surroundings;
- visibility and ease of access;
- traffic counts;
- guest room sizes and furnishings;
- guest facilities and amenities (such as pools, gyms, dining, and meeting rooms);
- average room rates; and
- management, operations, and service (to the extent that this information is available).

On the basis of this comparison and familiarity with market demand segments being targeted, the analyst should be able to estimate an achievable average daily room rate. Factors such as single and double occupancy and discounting must be considered. Using known local seasonality factors, projections of monthly occupancy can be made based on the number of days per month and then summarized as annual occupancy. The analyst may also be asked to estimate nonroom revenue, such as banquet sales or restaurant operations.

In assessing the potential of an existing hotel being considered for sale or purchase, two key measurements are its *penetration* and *yield*. A hotel's penetration is its share of demand (occupied rooms) in relation to its share of supply (available rooms). Table 7-6 provides an example of the penetration and yield analysis for an existing 300-room hotel being considered for purchase. It presents a picture of the recent and projected performance of the competitive market and the subject property. In

2007, for example, the subject hotel's share of demand was 17.5 percent (165 ÷ 945), and its share of supply was 20.0 percent (300 ÷ 1,500). Thus, its penetration was 87.3 percent (17.5 ÷ 20.0).

A hotel's yield in this analysis is its revenue per available room (RevPAR) divided by the market's RevPAR. It reflects the property's relative performance in terms of occupancy and room rate. As described above, RevPAR is derived by multiplying the average daily room rate by the occupancy percentage. In 2007, the yield for the subject property was 70.6 percent ($53.35 ÷ $75.60) based on its $53.35 RevPAR ($97 × 0.55) and the market's $75.60 RevPAR ($120 × 0.63).

Future performance is projected based on changes in general economic conditions, future additions to the competitive supply, and likely improvement in the subject property's competitive position after acquisition, taking into account any planned improvements. The example in table 7-6 projects declining RevPAR in 2009 resulting from recession-related downturns in both business and leisure travel. Despite planned improvements to the subject hotel, occupancy and room rates will not begin to rebound until 2010. Performance will improve steadily, but the opening of a new 200-room property in 2012 will slow growth in RevPAR throughout the market. The table shows that the subject property will be able to improve its occupancy and raise rates despite the growing supply of competitive rooms. Both its market penetration and its yield rates will be significantly better in 2012 than in 2009, suggesting that the proposed acquisition and renovation has the potential to be profitable.

Data Sources

Trade associations serving the travel and lodging industries are the best source of national statistics on trends in domestic U.S. travel. The AHLA provides summary information on business and leisure traveler characteristics; their state affiliates can also be helpful. The U.S. Department of Commerce's Office of Travel and Tourism Industries tracks foreign travel to the United States, and the United Nations World Tourism Organization (www.unwto.org) publishes annual data on global travel and visitor spending.

Travel trends in local markets can be reviewed using data from local chambers of commerce, tourism and economic development agencies (both state and local), and various trade associations. The feature box on the Orlando market indicates the breadth and depth of data available from its local convention and visitors bureau, but the range of information it provides is not duplicated in most markets. Private consulting firms specializing in travel market analysis and tourism studies are also useful as sources for industrywide trends. Some firms also sell local data for larger markets. Examples include Global Insight (www.globalinsight.com) and D. K. Shifflet & Associates (www.dksa.com).

Data on hotel supply and demand can also be monitored nationally and for individual metropolitan areas by purchasing reports from PKF Hospitality Research or Smith Travel Research. PKF's annual *Trends in the Hotel Industry* covers hotel statistics for major markets. Smith Travel Research publishes *Lodging Outlook*, a monthly market summary.

Information on new supply can be obtained from local convention and visitors bureaus or planning

Information Available from the Orlando–Orange County, Florida, Convention and Visitors Bureau

- Visitor counts, U.S. and international, convention/meeting and leisure, for the past ten years
- Source of domestic visitors (Florida and other regions) and international visitors
- Two-year visitor forecasts
- Airport traffic by month, past three years
- Cruise passengers calling at nearby Port Canaveral, past three years
- Convention center events and attendance
- Major theme park visitation counts and annual change
- Hotel occupancy rate across the metropolitan area, past eight years
- Submarket occupancy rates
- Average daily room rate across the metropolitan area, past eight years
- Room-night demand and annual change, past eight years
- Metropolitan-area room supply and annual change, past eight years and current-year forecast, for traditional and condominium hotels
- Timeshare supply and annual change, past ten years

and economic development agencies. It can also be purchased from data vendors; Lodging Econometrics is one source, and Torto Wheaton Research monitors projects in conjunction with Smith Travel Research and F.W. Dodge.

Overview of Case Study

The case study that follows illustrates how a proposed downtown Austin hotel will successfully compete in an underserved market. As Austin has matured into a national convention location, a hub for business and government, and a magnet for tourism, growth in the hotel sector has lagged. This hotel will capture some of the strong and growing demand from each of these sectors. The market study identifies data sources and explains "turnaway demand."

Notes

1. American Hotel and Lodging Association (AHLA), *Lodging Industry Profile*, 2008 edition, www.ahla.com.

2. U.S. Travel Industry Association, *Travelscope: 2005*.

3. PKF Consulting and PKF Hospitality Research, *Trends in the Hotel Industry*, USA edition, 2007.

4. AHLA, *Lodging Industry Profile: 2008*.

5. Dave Arnold, "Trends in the Conference Center Industry," published by PKF Hospitality Research, www.pkfc.com.

6. ARDA International Foundation, *State of the Vacation Timeshare Industry: United States Study,* 2008 Edition, summary, www.arda.org.

7. "Caribbean Timeshares on the Rise," *Urban Land*, August 2005, p. 46.

8. Smith Travel Research; www.gophila.com.

Case Study 7.1

New Hotel: Downtown Austin, Texas, 2008

John Keeling

The Project

A major hotel chain has proposed to build a new, 350-room, full-service hotel in downtown Austin, Texas. The hotel will have 15,000 square feet of meeting space, including a 7,200-square-foot ballroom. It will offer a 2,500-square-foot spa and fitness center, a pool with poolside bar, and a fine-dining restaurant. The hotel will provide services and amenities typical of a four-diamond property, as defined by the American Automobile Association.

The market area for the proposed hotel is the Austin Consolidated Metropolitan Statistical Area (CMSA). The Austin CMSA includes five counties: Bastrop, Caldwell, Hayes, Travis, and Williamson. Located at the edge of the 32,000-square-mile Texas Hill Country, Austin is the capital city of Texas and the 27th-largest city in the nation. The area is economically driven by the Texas State Capitol complex, the University of Texas, and the technology industry (with major campuses for Dell Computers, Samsung, Advanced Micro Devices, National Instruments, IBM, Sematech, and others), as well as the scenic Hill Country.

From 2000 through 2003, the city of Austin, which had experienced unprecedented growth during the 1990s, suffered from a stagnant economy, layoffs, and job reductions. The downturn in the technology industry; the September 11, 2001, terrorist attacks; and the national economic recession slowed economic growth. However, the area's economy began a rapid recovery in response to a resurgent technology industry, the national economic recovery, and efforts by the city, evidenced by the growth in office, residential, retail, and convention activity in downtown Austin.

From the opening of the Austin Convention Center in 1997 to its expansion in 2002, Austin has matured into a state, regional, and national convention market. The Austin Convention and Visitors Bureau (CVB) has been successful at increasing its booking activity because of Austin's popularity as a destination city. In addition, the 800-room Hilton that opened in December 2003 provides an attractive convention center hotel, which is essential in attracting large groups. According to the CVB, 2008 was a record year for convention activity.

Methods

Seven steps are followed when conducting market research for a hotel project:

- Define the product to be evaluated.
- Identify the properties to be included in the competitive analysis and evaluate their strengths and weaknesses relative to the proposed facility.
- Collect information on competitive properties by interviewing property managers and owners and by accessing available databases.
- Evaluate the strengths and weaknesses of the proposed hotel facilities and site.
- Assess the strength of the area economy and the likelihood of change in hotel demand from historic patterns.
- Estimate future hotel market performance.
- Based on the hotel's strengths and weaknesses relative to its competitors, estimate its ability to penetrate the various market segments and the resulting occupancies and average room rates.

Competitive Supply and Room Demand

More than 190 hotels exist in the Austin metropolitan area, offering more than 25,400 guest rooms. The proposed development is a 350-room, full-service, chain-affiliated hotel to be located in downtown Austin. Hotel properties have been identified that are likely competitors because they share similar characteristics of location, size, and quality. A great deal of information on hotel properties can be collected from readily available publications. Among the more useful publications are the following:

- directories of the various hotel chains;
- *Mobil Travel Guide* (www.mobiltravelguide.howstuffworks.com);
- *American Automobile Association Tour Book* (www.aaa.com);
- *Hotel & Travel Index* (www.hoteltravelindex.travelweekly.com);
- *OAG Business Travel Planner* (www.oag.com);
- *Official Meeting Facilities Guide* (www.omfg.com);
- publications by local chambers of commerce, hotel associations, or CVBs; and

Table 7.1-1
Competitive Hotel Properties

	Number of Rooms	Year Opened	Square Footage Total Meeting[a]	Square Footage Ballroom	Mtg. Sq. Ft. per Room
Primary Competitive Set					
The Driskill Hotel	189	1886/1999	14,837	5,634	79
Omni Downtown	375	1986	20,747	4,059	55
Four Seasons Austin	291	1987	14,457	7,029	50
Hilton Landmark Convention Center	800	2003	55,525	27,452	69
Total	1,655				
Secondary Competitive Set					
Intercontinental Stephen F. Austin	189	1924	5,706	3,600	30
Radisson Suites Austin	413	1967	9,600	5,400	23
Hyatt Regency Austin	448	1982	19,378	10,290	43
Embassy Suites Downtown	261	1985	2,380	1,026	9
DoubleTree Guest Suites	189	1987	5,642	2,166	30
Sheraton Downtown	365	1988	17,252	9,600	47
Total	1,865				
Total Competitive Set	**3,520**				

a. Total meeting space is square footage of all meeting rooms and ballrooms, exclusive of prefunction space.

- Internet Web sites for the various chains or individual properties.

For this proposed hotel, the competitive properties are described in table 7.1-1.

Fortunately for those conducting hotel market research, an excellent national database provides accurate and timely data on most markets in the United States. For a fee, STR Global (STR; www.strglobal.com) "Standard Historical Trend" reports provide a six-year history of aggregate occupancies and average room rates by month and day of the week, as well as year-to-date (YTD) information for designated market areas. Of course, not every property in every market is tracked by STR. Professionally managed and chain-affiliated hotels tend to be included, whereas smaller, owner-operated hotels tend not to participate. For this case study, every hotel in the competitive set is a participant. A summary of data from a STR report for the competitive set appears in table 7.1-2.

A number of facts are immediately apparent from these figures. First, while the supply for the secondary competitive set of properties has remained static, the 800-room Hilton Hotel was added to the primary competitive set in late 2003. Room rates have demonstrated strong growth, almost twice the rate of inflation. The recovery of the market following the falloff in demand in 2001 as a result of the dot-com implosion and the terrorist attacks of September 11 started in 2005. The Hilton rooms have been absorbed quickly. Demand stopped growing in 2006, 2007, and the first half of 2008. It appears that the market has reached capacity and that additional demand cannot be accommodated within the competitive set but must seek accommodations outside the primary set. This unaccommodated demand—"turn-away demand"—is important because the addition of new hotel rooms in the market will present the opportunity to recapture this lost demand, as was demonstrated by the addition of the Hilton.

Although the STR reports are excellent for providing both a good statistical overview and a historical context, they are insufficient for gaining useful insights into the dynamics of the market. For this information, on-the-ground fieldwork is required. It is important to conduct interviews with hotel managers and marketing directors to get a qualitative as well as a quantitative sense of the market. From these interviews, the analyst should learn what the

Table 7.1-2
Summary of Historical Trends in Downtown Austin Market Area

	2003	2007	Annual Change (%)[a]	YTD June 07	YTD June 08	YTD Change (%)
Primary Competition						
Occupancy (%)	66.5	77.4		79.9	77.9	
Room rate ($)	161.21	196.67	5.1	198.18	210.09	6.0
Supply	336,895	604,075	15.7	302,220	302,220	0.0
Demand	224,035	467,554	20.2	241,474	235,429	-2.5
Secondary Competition						
Occupancy (%)	70.4	70.0		73.9	75.3	
Room rate ($)	119.02	156.41	7.1	159.15	165.13	3.8
Supply	694,230	697,150	0.1	348,575	348,575	0.0
Demand	485,267	488,005	0.1	257,946	262,826	1.9
Total Competition						
Occupancy (%)	68.8	73.4		76.7	76.6	
Room rate ($)	132.42	176.45	7.4	178.28	186.73	4.7
Supply	1,031,125	1,301,225	6.0	650,795	650,795	0.0
Demand	709,302	955,559	7.7	499,419	498,255	-0.2

Source: STR Global.
a. Compound growth rate.

makeup of competitors' business is: what percentage comes from individual business travelers, leisure travelers, conventions, in-house groups (groups that use the meeting facilities of the hotel and do not require a convention center), and any special sources of demand such as airlines, medical facilities, contracts, and government. Table 7.1-3 provides a breakdown of 2007 market segmentation for the competitive set of properties. Combining the market segmentation information accumulated during interviews with the statistics from STR results in the analysis described in table 7.1-4.

This analysis reveals some additional information. It appears that the market reached a stabilized occupancy of about 74 percent in 2005. The greatest increases in demand occurred in 2003 and 2004 as a result of the opening of the 800-room Hilton. It is not usual, particularly in high-occupancy markets like Austin, for the construction of a new hotel to have a positive effect on the demand for hotel rooms. For the past three years, the competitive set was running 75 to 77 percent and the overall market 73 to 74 percent average annual occupancy. Because occupancy is not distributed evenly throughout the week or month, on many days throughout the year the competitive set is sold out and can accept no more guests. This is true when there is, for example, a University of Texas football game, the South by Southwest music festival, and other big events. Guests who would have liked to stay in the competitive hotels downtown stay instead in other Austin hotels or even in communities surrounding Austin. With the construction of a new hotel, that turn-away demand is now captured by the new hotel's rooms so, from the point of view of the competitive set, demand is increasing because of the new rooms.

In addition, although Austin had a new convention center, it was handicapped by the lack of a convention hotel. For example, Texas state associations that make it a practice to rotate from one Texas city to another had been on a three-year rotation from Dallas to Houston to San Antonio and back. Austin lacked the headquarters hotel to handle all but the smallest association's business. With the addition of the 800-room Hilton, the state associations can now go into a four-year rotation, adding Austin to the original three venues. The large Hilton will also bring sizable conventions that are loyal to Hilton into Austin. Thus,

Table 7.1-3
Competitive Hotel Market Segmentation (%)

	Individual Business Traveler	Group/Convention	Leisure/Tourist	Government
The Driskill Hotel	34	34	29	3
Omni Downtown	31	50	15	4
Four Seasons	25	41	34	0
Hilton Hotel	25	61	11	3
InterContinental	51	16	31	2
Radisson Suites	32	55	10	3
Hyatt Regency	21	44	35	0
Embassy Suites	30	24	38	8
DoubleTree Guest Suites	35	50	5	10
Sheraton Downtown	25	40	25	10
Market Average[a]	28.5	45.4	22.1	4.0

a. Weighted averages.

Table 7.1-4
Summary of Estimated Competitive Market Conditions

	2003	2004	2005	2006	2007	Annual Change (%)[a]
Rooms available	1,031,125	1,301,225	1,301,225	1,301,225	1,301,225	6.0
Room nights of demand						
Individual business travelers	202,718	222,585	240,614	256,735	272,641	7.7
Group	318,618	464,077	506,249	464,790	433,450	8.0
Leisure	153,209	169,449	186,903	201,668	211,041	8.3
Government	34,756	36,111	37,411	38,781	38,427	2.5
Total demand	709,302	892,222	971,177	961,974	955,559	7.7
Market occupancy (%)	68.8	68.6	74.6	73.9	73.4	
Average daily rate	$132.42	$129.27	$142.36	$163.68	$176.45	7.4

a. Compound growth rate.

a large convention hotel can act as a demand generator in its own right, particularly if it is the first such hotel in the market.

Because some demand cannot be accommodated during periods that see no new additions, room occupancy alone will understate the true amount of demand available. The amount of apparent new demand during periods of hotel supply additions tends to overstate true demand as turn-away demand is recaptured. In 2006 and 2007, all segments of demand continued to increase except for "group," which exhibited some softening. This analysis confirms earlier observations that the market is at capacity.

The seasonality of the market can also be determined from STR data. Very little seasonality occurs in this market, which is typical for a largely commercial area like downtown Austin. December and January are "softer" months. Although many commercial markets see some seasonality in the summer months, Austin's summer occupancies are buoyed by strong summer leisure visitation. When the same analysis is performed in a tourism-driven

market such as Scottsdale or Aspen, it reveals dramatic differences in occupancies between in-season and out-of-season periods.

A type of seasonality that is particular to Austin is its even-year, odd-year seasonality. According to the Texas constitution, the state legislature may meet only in odd-numbered years, except when a special session is called by the governor. But because the market operates at near capacity, the effect of legislative sessions on occupancy is not pronounced.

Future Supply Additions

There is a lot of interest in hotel development in downtown Austin. During interviews, the analyst discovered that the following proposed projects are likely additions to the competitive hotel set:

- A 252-room W Hotel is under construction on Block 21, which is being developed as a private/public venture through a request for proposal process initiated by the city of Austin. Located on 2nd Street, directly behind the new Austin City Hall approximately three blocks west of the subject site, the project is expected to include a 1,000-seat *Austin City Limits* venue, the Austin Children's Museum, 200 condominium units, and the proposed W Hotel. Completion is likely to be in July 2010.
- White Lodging Services Corporation is planning a $250 million project with a 1,000-room Marriott Hotel on the block bounded by Congress Avenue, Brazos Street, 2nd Street, and 3rd Street—just two blocks from the convention center. The hotel will have 95,000 square feet of meeting space. It is scheduled to open by July 2011.
- A 186-room Seaholm Plaza Hotel is planned as part of the Seaholm Power Plant redevelopment mixed-use project. The site is located on the north side of Cesar Chavez Street adjacent to the north shore of Town Lake in the southwestern area of downtown. The development will include a 79,000-square-foot office and retail building; the original Seaholm Power Plant building, which will house retail, office, and meeting space; and a 22-story hotel and condominium tower surrounding a public plaza. The hotel is estimated to open in July 2011.

Several additional hotel projects were not included as additions to supply:

- The University of Texas will soon open a 300-room conference center hotel on its campus at Martin Luther King Boulevard and Lavaca Street. This facility has been designed to serve the executive education needs of the University of Texas. The facility will have 70,000 square feet of meeting space, a 250-seat amphitheater, three classrooms, and 12 additional meeting rooms when it is completed in August 2008. Owing to its university orientation, this property will not compete for demand in the downtown area.
- The 300-room Hotel Van Zandt is a boutique Kimpton Hotel that is planned for development in the far southeast area of downtown Austin, near I-35 and the Austin Convention Center. However, this project has been delayed and has not secured financing. No timeline has been set.
- The 21c Museum Hotel is being planned at Cesar Chavez and Red River streets. The project would include 243 guest rooms and 200 condominium units in a 44-story tower. The facility would also include a contemporary art museum. Plans are preliminary.

Sources of Demand and Projected Growth

It is also necessary to study who uses hotel rooms and how each demand segment is likely to grow in the future. To do this, one could examine past market trends, particularly over the most recent few years. This review is useful in markets where new development can occur with few constraints. In the case of downtown Austin, significant barriers to new development exist. With the market effectively operating at capacity, historical growth rates have been influenced positively by the opening of the Hilton; thus, historical performance alone may understate future growth in demand in years when no new hotels are added.

In this study, the primary competitive set captures a larger amount of group demand because of the competitive set's proximity to the convention center and its quantity and quality of meeting space. Group demand is generated by corporate meeting demand, citywide convention activity, and weekend SMERF (social, military, educational, religious, and fraternal) demand. Individual business traveler (IBT) demand is attributed to those who have business downtown or who prefer to stay downtown although they have business in the greater Austin area. Leisure demand is driven by visitors to local resi-

dents, attendees at local events including University of Texas sports events, and visitors to the popular Texas Hill Country area.

IBT Demand

Because of the strength of the Austin economy and the growth of Austin businesses, the IBT segment is expected to experience continued strong growth during the projection period. Interviews with local hotel operators reveal that the market has experienced a very strong increase in demand for business travel, group meetings, and conventions during 2006 and 2007. As the competitive hotels reach capacity in 2008, the rate of growth will slow. However, with the large number of hotel rooms being added to the market during 2010 and 2011, demand will increase more rapidly as new local and national marketing efforts are added to the market. IBT demand is estimated to increase at 3 percent through 2010. Then, IBT demand is expected to increase by 4 percent in 2011, 5 percent in 2012, and 4 percent in 2013 in response to the addition of new supply. IBT demand should grow at 3 percent per year thereafter.

Group Demand

The Austin CVB indicated that 2006 was a record year for convention attendance. Group demand is expected to slow through 2009 as the competitive hotels reach capacity. However, the addition of the new hotels in 2010 and 2011, all with adequate meeting space, will significantly increase the growth of group demand. Existing group demand is estimated to grow at 3 percent through 2009, 4 percent in 2010, 8 percent in 2011, 6 percent in 2012, 4 percent in 2013 and 2014, and 3 percent annually thereafter.

Leisure Demand

Downtown Austin has become a destination for visitors seeking restaurants and entertainment venues, especially along renowned 6th Street. The many sports complexes located on the University of Texas campus also generate demand for room-nights in the downtown area. The recently completed Downtown Austin Alliance Retail Development Strategy estimates that the downtown area, which currently has about 400,000 square feet of retail space, can support up to 900,000 square feet. Plans include the development of a retail corridor that would stretch from the 2nd Street District along Congress Avenue to 6th Street. In addition, more than 2,000 new residential units are planned for the downtown area over the next few years. As the retail corridor and residential community are developed, visitors to the downtown Austin area will increase. Leisure demand is estimated to increase by 3 percent in 2009. Then, leisure demand should increase with the addition of the new supply to 4 percent from 2010 through 2012, followed by a return to 3 percent thereafter.

Government Demand

As the capital of Texas, Austin is the site of headquarters for many state agencies and the home of the state legislature and capitol complex. Combined with the local and federal government activity, the government demand segment is a small but important part of the downtown hotel market. The government market segment is mostly price sensitive, which results in it contributing only 4 percent of the demand captured by the competitive hotels. The state legislature meets every other year in odd-numbered years. Therefore, government demand is estimated to increase at 2 percent in even-numbered years and 3 percent in odd-numbered years throughout the projection period.

An evaluation of economic indicators in the Austin market indicates that the growth in each market segment will occur as shown in table 7.1-5. Historic growth rates during 2004 through 2007 are shown to place the projections into context. The new rooms being added to the market at the W, Marriott, and Seaholm Plaza hotels, as well as the subject 350-room property, will accommodate IBT demand that was turned away during peak periods. The competitive set is estimated to capture approximately 22,500 room-nights of derived IBT demand from 2010 through 2013, as new hotels are added to the market.

In addition, new group meeting and convention activity is expected to be added to the downtown Austin market in response to the addition of the new hotel chains. The CVB indicated that the addition of these hotels will enable Austin to begin to reach the maximum capacity of the convention center, which has not been possible in the past. The addition of hotels with different brand affiliations, frequent traveler programs, increased marketing efforts, and national reservation systems usually results in an increase in the amount of demand attracted to a market. The Marriott and the subject property will have marketing staff to sell

group business that might otherwise have been accommodated outside the competitive set of properties—or even outside Austin. Therefore, the competitive set of hotels will capture demand that was previously unavailable in the Austin market. The competitive set is estimated to capture approximately 52,500 room-nights of derived group demand from 2010 through 2013, as new hotels are added to the market. (See table 7.1-6.)

Estimating Performance for the Subject

After the likely performance of the competitive properties is established, the next step is to estimate the performance of the subject hotel. The projection is usually accomplished through a fair-share analysis. *Fair market share* is the percentage of demand allocated to a given property based on the ratio of its available guest rooms to the total number of rooms in the competitive market. In this case, the fair market share of the subject property in 2011 is calculated as follows:

Size of subject property	350 rooms
Number of rooms in competitive set	4,761 rooms
Fair market share	350 ÷ 4,761 = 7.4%

Because the effect of the two hotels that will open in July 2011 will not be fully felt until 2012, the fair market share of the subject hotel falls to 6.6 percent in 2012.

Estimates of market penetration are based on the attributes of a hotel relative to the competitive market. Historic penetrations of properties in the competitive set are considered, as are any potential changes caused by changing property attributes or marketing strategies. A penetration rate of more than 100 percent indicates that a property is capturing more than its fair market share, while a lower rate indicates that the property is losing fair share to its competition. In general, a property's attractiveness to the various market segments will determine how it will penetrate each segment. Properties that have strong frequent traveler programs tend to penetrate the IBT segment at higher levels than other properties. Properties that have large amounts of meeting space tend to penetrate the group segment at higher levels than those with less. The competitive supply has penetrated its fair share of room demand at the rates shown in table 7.1-7.

The proposed hotel is anticipated to be similar in quality to the Hilton or Hyatt but to have amenities and features similar to the Omni and Intercontinental. The hotel

Table 7.1-6
Market Supply and Demand

	2007	2008		2009		2010	
Market Segment	**Demand**	**Change (%)**	**Demand**	**Change (%)**	**Demand**	**Change (%)**	**Demand**
Individual Business Travel							
Demonstrated	272,641	1.0	275,367	3.0	283,628	3.0	292,137
Derived							5,000
Group/Convention							
Demonstrated	433,450	1.0	437,785	3.0	450,918	4.0	468,955
Derived							10,000
Leisure/Tourist							
Demonstrated	211,041	1.0	213,151	3.0	219,546	4.0	228,328
Derived							
Government							
Demonstrated	38,427	1.0	38,811	3.0	39,976	2.0	40,775
Derived							
Total	**955,559**	**1.0**	**965,115**	**3.0**	**994,068**	**5.1**	**1,045,195**
Rooms available	1,301,225		1,301,225		1,301,225		1,364,225
Market occupancy (%)	73.4		74.2		76.4		76.6

Table 7.1-5
Demand Growth (%)

	Individual Business Travelers	Group/Convention	Leisure/Tourist	Government	Overall
2004	9.8	45.7	10.6	3.9	25.8
2005	8.1	9.1	10.3	3.6	8.8
2006	6.7	–8.2	7.9	3.7	–0.9
2007	6.2	–6.7	4.6	–0.9	–0.7
2008	1.0	1.0	1.0	1.0	1.0
2009	3.0	3.0	3.0	3.0	3.0
2010	3.0	4.0	4.0	2.0	5.1
2011	4.0	8.0	4.0	3.0	8.7
2012	6.0	6.0	4.0	2.0	7.2
2013	4.0	4.0	3.0	3.0	4.6
2014	3.0	4.0	3.0	3.0	3.5
2015–2022	3.0	3.0	3.0	2.6	3.0

2011		2012		2013		2014	
Change (%)	Demand	Change (%)	Demand	Change (%)	Demand	Change (%)	Demand
4.0	309,023	6.0	338,164	4.0	356,891	3.0	370,172
	10,000		5,000		2,500		
8.0	517,271	6.0	569,507	4.0	607,888	4.0	640,003
	20,000		15,000		7,500		
4.0	237,461	4.0	246,959	3.0	254,368	3.0	261,999
3.0	41,998	2.0	42,838	3.0	44,123	3.0	45,447
8.7	**1,135,753**	**7.2**	**1,217,469**	**4.6**	**1,273,270**	**3.5**	**1,317,622**
	1,754,410		1,970,855		1,970,855		1,970,855
	64.7		61.8		64.6		66.9

Table 7.1-7
Penetration Rates of Competitive Supply[a]

	Individual Business Travelers	Group/Convention	Leisure/Tourist	Government	Overall
The Driskill Hotel	70–75	80–85	70–75	40–45	90–95
Omni Downtown	95–100	140–145	45–50	100–105	100–105
Four Seasons Austin	80–85	100–105	165–170	0	100–105
Hilton Landmark Convention Center	70–75	175–180	45–50	70–75	105–110
Intercontinental Stephen F. Austin	170–175	15–20	140–145	50–55	95–100
Radisson Suites Austin	100–105	90–95	100–105	70–75	95–100
Hyatt Regency Austin	55–60	165–170	85–90	0	100–105
Embassy Suites Downtown	140–145	35–40	125–130	180–185	110–115
DoubleTree Guest Suites	115–120	85–90	70–75	250–255	105–110
Sheraton Downtown	90–95	80–85	140–145	240–245	100–105

a. *Penetration* is the percentage of each property's fair share demand based on size and its attractiveness to each demand segment.

Table 7.1-8
Estimated Property Performance

Year	Market Segment	Market Demand	Fair Market Share		Market Penetration		Occupancy (%)
			Share (%)	Demand	Share (%)	Demand	
2011	IBT	319,023	7.4	23,608	98.0	23,136	
	Group/Convention	537,271	7.4	39,758	95.0	37,770	
	Leisure/Tourist	237,461	7.4	17,572	90.0	15,815	
	Government	41,998	7.4	3,108	75.0	2,331	
	Total	**1,135,753**	**7.4**	**84,046**	**94.1**	**79,052**	**62**
2012	IBT	343,164	6.6	22,649	104.0	23,555	
	Group/Convention	584,507	6.6	38,577	105.0	40,506	
	Leisure/Tourist	246,959	6.6	16,299	95.0	15,484	
	Government	42,838	6.6	2,827	75.0	2,120	
	Total	**1,217,469**	**6.6**	**80,353**	**101.6**	**81,666**	**64**
2013	IBT	359,391	6.6	23,720	108.0	25,617	
	Group/Convention	615,388	6.6	40,616	110.0	44,677	
	Leisure/Tourist	254,368	6.6	16,788	98.0	16,453	
	Government	44,123	6.6	2,912	75.0	2,184	
	Total	**1,273,270**	**6.6**	**84,036**	**105.8**	**88,931**	**70**
2014	IBT	370,172	6.6	24,431	108.0	26,386	
	Group/Convention	640,003	6.6	42,240	110.0	46,464	
	Leisure/Tourist	261,999	6.6	17,292	100.0	17,292	
	Government	45,447	6.6	3,000	75.0	2,250	
	Total	**1,317,622**	**6.6**	**86,963**	**106.2**	**92,392**	**72**

Table 7.1-9
Estimated Rooms Revenue by Market Segment, Projected for 2013

Market Segment	Occupied Rooms	Room Rate ($)	Rooms Revenue ($)
IBT	26,386	220	5,804,896
Group/Convention	46,464	185	8,595,884
Leisure/Tourist	17,292	245	4,236,526
Government	2,250	160	359,942
Total	92,392		18,997,248
Average		206	
Average occupancy (%)	72		

will be affiliated with a national brand that is perceived as very attractive to the IBT segment. It is anticipated that the hotel will achieve slightly more than its fair share of demand from the IBT segment, starting at 98 percent in 2011 and peaking at 108 percent by 2013. The hotel will have the equivalent of 43 square feet of meeting space per guest room. It will support the efforts of the convention center but will be particularly attractive to small corporate groups that require high levels of attention. Accordingly, it is estimated that the proposed hotel will penetrate the group segment at 95 percent in 2011 and peak at 110 percent by 2013. Given its location near the entertainment and shopping venues downtown, the hotel is expected to penetrate the leisure market at 90 percent of its fair share in 2011 and to peak at 100 percent by 2014. Because of the price sensitivity of government demand, the hotel will penetrate this segment at only the 75 percent level. The resulting overall penetration level for the hotel is 94 percent in 2011, increasing to 106 percent by 2013. The resulting property occupancies are shown in table 7.1-8.

After a likely occupancy for the subject property has been arrived at, the next step is to apply the achievable room rates that were obtained from the market research to the various market segments, to estimate annual room revenue. Taking the stabilized year, 2013, the calculation would be as shown in table 7.1-9.

The final step would be to prepare cash flow estimates for the property to determine whether there is sufficient net revenue to support the anticipated capital structure. To perform this step, the analyst would either use financial statements of comparable properties or purchase custom reports on financial comparables from firms such as PKF Consulting (Benchmarker®, at www.pkfc.com) or STR Global (Host®, www.strglobal.com).

This method of determining a hotel's anticipated performance is the most widely used; however, it does not apply in all circumstances. It works well when the subject property will compete against a number of other properties. In such cases, the relationships between the properties can be discerned and the appropriate penetration rates applied. However, this method fails in circumstances when few or no competitive properties exist, as is often the case with resort destinations, executive conference centers, and large convention hotels. In Hawaii, Phoenix, and Palm Springs, where a large number of resorts exist, the penetration model would be useful. It would not work, however, in markets where there are few or no existing comparable and competitive properties. The methodology for evaluating such projects is beyond the scope of this case study.

Namba Parks, in Osaka, Japan, is a transit-oriented, mixed-use green development that combines office, retail, and residential with a network of rooftop gardens that serve as public open space. ***Hiroyuki Kawano***

Chapter 8

Mixed Use

Mixed-use development is complex for both the developer and the market analyst. It involves more than the sum of its parts. The developer must strategize the proper sizing, placement, and timing of components. Site planners and architects must deal with myriad building code requirements, parking standards, and design issues that can be different for each proposed use. The market analyst must evaluate each property type individually and understand the interactions—both positive and negative—that will be created. Financing can also be more complex as the developer and lender weigh the feasibility of loss leaders and the effect of shifting economic cycles on specific property components during the construction, stabilization, and holding periods (for example, the market may be good for the apartment component but not the office). This is the core reason why mixed-use development is hard to finance and many lenders shy away from the complexities.

Background

Mixed-use buildings were common before World War II. Older structures with retail shops on the ground floor and apartments or offices on the upper levels can still be found in city neighborhoods. Downtown office buildings usually included ground-floor space occupied by stores, restaurants, and banks, but only in the 1970s did truly multifunctional high-rise buildings appear in the nation's densest central business districts. Redevelopment generated projects that incorporated a variety of uses on a single city megablock.

The spread of transit-oriented development around commuter-rail stations in the 1990s brought the mixed-use concept to the suburbs, albeit at lower densities. Lifestyle centers combining housing, shops, eateries, and entertainment brought the mixed-use concept to suburban town centers that had no rail service.

Today, mixed-use development is accepted and often encouraged by government agencies because of its vitality. In densely developed neighborhoods, combining apartments or condominiums with retailing and entertainment has created 24-hour neighborhoods that are safer for residents and more inviting for tourists and business visitors. In the suburbs, the smart growth and new urbanist movements promote mixed-use development because it reduces travel and parking demands and enhances the pedestrian experience.

ULI's original definition of mixed-use development, first set forth in 1976, is little changed in the 2003 edition of the *Mixed-Use Development Handbook*. Such projects are characterized by

- three or more significant revenue-producing uses (such as retail, office, residential, hotel, and entertainment, cultural offerings, and recreation) that in well-planned projects are mutually supporting;
- significant physical and functional integration of project components (and thus a relatively intensive use of land), including uninterrupted pedestrian connections; and

- development in conformance with a coherent plan (which frequently stipulates the type and scale of uses, permitted densities, and related items).

Some observers distinguish *mixed-use* development from *multiuse* projects that offer different types of real estate product in separate, unconnected buildings. Mixed-use developments are not the same as master-planned residential communities. The latter, encompassing hundreds, or even thousands of acres, usually contain a variety of housing types and multiple commercial uses. They may have pedestrian connections and bike paths. But the primary focus—and profit generator—is residential. The community shopping centers, professional offices, health clubs, and other recreational facilities enhance the marketability of homes and apartments, but they are not big revenue generators for the developer. In fact, the master developer of a master-planned community often sells designated parcels for commercial use, preferring to focus on the housing. In a mixed-use project, one developer is likely to plan and build the entire project, although partnerships that bring together experts in the various components are increasingly common. Also, specialists may be brought in to handle the marketing of distinct components.

As discussed in chapter 6, large business parks often include warehouses, light assembly, and flex office buildings. Depending on their scale and the attractiveness of their locations, business parks can also attract convenience retail space, restaurants, hotels, health clubs, and daycare centers. However, in business parks the office and industrial uses dominate, and buildings function independently. The other commercial activities are supportive—they enhance the marketability of large parcels, while using portions of the property that might not be as attractive for large space users. Business parks are multiuse but not mixed use.

Three or More Significant Revenue-Producing Uses

Although many real estate projects have more than one use, mixed-use developments as defined in this chapter include at least three major revenue-producing uses. In most mixed-use projects, the primary revenue-producing uses are retail, office, residential, and hotel facilities. Other revenue-producing uses can include parking garages, cultural facilities (performing arts centers or museums), exhibition and meeting space, and recreation facilities. Some uses can be partially supported (and operated) by nonprofit organizations or government entities. It is worth emphasizing that these must be significant uses. A few shops in the base of an office building do not make it a mixed-use development, nor does a fitness center in a residential complex.

Each property type in a mixed-use development draws its own buyers, tenants, and patrons. In projects that involve residential uses, retailers not only generate sales from residents, but also draw shoppers from people who do not live in the development. The same is true of arts and cultural facilities. A small number of people may live and work in the same develop-ment, but this is more the exception than the rule.

Having at least three significant uses together in one development usually implies a project of considerable scale and impact. Typically, each component exceeds 100,000 square feet, and total project size is more than 300,000 square feet. The largest developments can be millions of square feet.

Developers often seek a minimum critical mass for mixed-use developments, to create the requisite public image and market penetration. The size and diversity of uses in these projects, if effectively programmed and designed, can result in a project that becomes a significant new draw. Mixed-use projects are much more than simply developments; they are exercises in place making. A good mixed-use development can turn a lesser location into a prime one.

A mixed-use project can improve the chances of success for a socially desirable but economically risky activity because the more profitable uses can carry the less profitable. For example, a performing arts center becomes feasible when paired with an office complex. Higher prices charged for market-rate homes provide funds to internally subsidize less-profitable units that are rented to moderate- or low-income households.

Local governments are becoming more comfortable with mixed-use projects; performance zoning is supplementing the traditional list of permitted and prohibited uses.[1] However, even after the numerous mixed-use successes that have been realized around the country, many localities are still tied to old notions of separate-use zoning and are reluctant to modify their codes in ways that encourage multiple uses in a single structure or even in a single block or site.

Physical and Functional Integration

The second descriptive characteristic of mixed-use developments is a significant physical and functional integration of the project's components. All buildings and outdoor spaces should be interconnected by pedestrian links, although this integration can take many physical forms:

- a vertical mixing of project components into a single mega structure, often occupying only one city block;
- combining single-purpose and multiuse buildings;
- careful positioning of key project components around central public spaces (for example, a street, park, plaza, atrium), or open-air shopping areas;
- linking project components through use of sidewalks, interior walkways, enclosed corridors, underground concourses, common lobbies, escalators and elevators, and even aerial bridges between buildings; and
- shared parking, which improves land-use efficiencies and reduces costs.

Mixed-use projects are usually developed from the outset in conformance with a coherent development strategy and plan. Master planning for a mixed-use development, compared with that for a single-purpose project, demands integrated participation from specialists in land planning, architecture, engineering, market analysis, marketing, leasing, property management, and finance. The planning process is therefore far more complex and takes more time than for simpler projects.

Parking, Circulation, and Transit

An integrated mix of on- and off-street parking is the most desirable goal for mixed-use centers. The convenience of short-term, on-street spaces in front of stores is a marketing plus, while off-street spaces are needed to accommodate the volume of longer-term residents, workers, and customers. If land values and planned densities are high, off-street structured parking decks, either above or below ground, will likely be justified—and certainly more desirable than endless parking fields. Parking garages can form the basis for future building phases, to be developed using the air rights above the garages or decks. Of course, the need to plan for this in advance underscores the complexity of planning large, multiphase, mixed-use developments.

Mixed-use developments also offer some limited opportunities for shared parking, but dedicated parking will still be expected for residents, office workers, and shoppers. The major opportunity to reduce parking needs will be in the evening, when shoppers, diners, and users of entertainment facilities will be able to park in spaces used by daytime office workers. The overall number of spaces needed can be further reduced because on-site residents, office workers, and nearby neighborhood residents will be able to walk to the commercial center.[2]

Pedestrian circulation is another critical element in the planning process, because without it, the project will not work as a whole and will not achieve the desired synergy and sense of place that are the hallmarks of mixed-use developments.

Many of today's most successful mixed-use projects started out in the 1970s as transit-oriented joint development projects. Private developers were eager to integrate new or renovated subway stations into their commercial buildings. Washington D.C.'s Metro and San Francisco's BART were willing to sell land adjacent to their stations or lease air rights over them. Transit agencies were true partners in the project. The process was complicated and subject not only to local land use controls but also to federal Department of Transportation (DOT) rules, because the transit systems received federal funds. It took many years to move from the initial concept to the start of construction. The earliest examples of joint development projects were primarily office oriented, with one or two floors of above-ground retail space (and more in the subway concourses), in their earliest forms. Only later did apartments and condominiums become part of the mix. What appears today to be a mixed-use project from the 1980s may have involved multiple developers over a long period of time.

Today's transit-oriented developments involve cooperation with transit agencies but are usually built on underutilized privately owned parcels within a short walk from station entrances. Some projects involve a combination of new construction and adaptive use of older industrial or office buildings.

Plans must also carefully consider vehicular circulation into and within the project site, and both location of parking and ingress and egress for it (whether structured or in surface lots). Cars need to move in and out without adversely affecting res-

Creating a Place

The Project for Public Spaces (www.pps.org) is a nonprofit organization, working with developers and municipalities on new mixed-use communities and town centers. PPS offers the following principles for creating successful mixed-use projects:

- Use public spaces as the framework around which housing, retail, and commercial buildings are planned and designed.
- Build a strong sense of community for residents and workers by creating social gathering places and space for community events.
- Reflect a consensus among members of the development team regarding public space goals and management policies.
- Provide a sense of place and a variety of destinations.
- Offer a wide range of uses and activities to create vibrancy and activity during all seasons, and to serve people of all ages and socioeconomic characteristics.
- Support transit options and smart growth principles through design.
- Integrate the project into existing communities and surrounding neighborhoods.
- Manage and program the space carefully, and taking advantage of public/private partnerships in operations.

According to PPS, busy plazas and pedestrian-friendly streets contribute directly to retail customer satisfaction. They can push building rents upward and reduce vacancy rates. They can also generate revenue from leases to food purveyors and special events organizers. Collaborating with tenants and the community on the use and management of public spaces will build strong ties with stakeholders.

idential buildings. Trucks need to be able to make deliveries to retail and restaurant spaces without blocking streets or generating noise. Lighting levels that convey a sense of safety to commercial patrons visiting at night must be tempered by the need to protect residents from glare. Residential tenants and homebuyers come to mixed-use projects because they like the ambience, but they want to be shielded from adverse effects. These issues are more problematic when marketing for-sale housing than rental units.

Analyzing Market Potential for Mixed-Use Projects

Mixed-use developments present certain unique challenges as well as opportunities for the market analyst. If conditions are optimal, the project's developer and investors can capitalize on synergy among complementary uses and create an overall cumulative market attraction that exceeds what the individual project components would generate independently. However, each element of the project must be able to stand on its own in terms of marketability. The challenge for the analyst is to determine whether any market premiums might be achievable as a result of the project's varied elements. Considerable effort has been spent trying to identify whether there is a rental rate premium for mixed use, with little success. In some ways, the task is similar to determining the premiums a condominium buyer would pay for upper-floor units with attractive views or the enhanced privacy afforded by an end unit in a townhouse building.

The basic real estate theory of mixed-use development is that people will take advantage of colocated land uses to concentrate their commuting, shopping, and entertainment trips. This kind of development can have the advantage of creating captive audiences for various project components. It can also create economies of scale from a shared investment in supporting infrastructure, such as off-site road improvements, on-site parking, and open space, as well as common services ranging from trash collection to marketing and advertising.

However, not all uses are equally compatible. Potential upper-floor residents may be concerned about odors, noise, and nighttime activity from street-level restaurants, theaters, or clubs. Condominium owners will worry about security and need assurances that office workers or hotel guests will not have access to residential floors in a high-rise building. Hotel guests will also have security concerns in a mixed-use building.

Negative effects can be minimized or eliminated through careful planning and design. The office and residential components of a mixed-use building will need their own lobbies with separate security. While residents and office users want privacy, retail tenants and restaurants want to be accessible to patrons who do not live or work in the building. Coordinating shared parking can be a problem at different times of the day or different seasons

Riverfront Park has enlivened downtown Denver with a mix of restaurants, shops, and residential development. ***Courtesy of East West Partners***

of the year, but an appropriate mix can also reduce the amount of parking required.

A good location for a mixed-use project is also a good location for a single-purpose development. Such a location has accessibility and visibility. Surrounding uses create no negative conditions that cannot be ameliorated. With sufficient scale, a development can be a successful pioneer, generating consumer interest and investment in an entire neighborhood. But multiple uses are also riskier:

- It is harder to time the market. All uses are built simultaneously, which increases exposure to market shifts that occur during construction. A single multiuse building might be ready for leasing at a time when the housing market is overbuilt but the office market is strong—or vice versa. Yet construction on all parts of the building will be completed at the same time. One component may lease or sell more quickly than others. The developer cannot postpone the completion of a portion of the building because the prospect of finding tenants is poor.
- In a project with multiple buildings, proper phasing of project components is crucial, as is the need for flexibility in planning and design. The original plan may need to be optimized in terms of scale or timing or even property type (a plan for residential rental space may need to be modified because the office market is hot and generates greater values, for example).
- Buildings in the initial phase must function independently of future activity, because there may be a considerable lag between completions of buildings. The project should begin with the uses that have the strongest current market potential, thereby creating cash flow that can be funneled into later phases of the project.
- Making decisions about where to place different activities within a mixed-use site can be difficult. Every potential commercial tenant wants the corner with the most visibility and the easiest access. A site plan for a large mixed-use project usually places offices and parking in the interior locations and hotel, retail, and entertainment uses at the edges for the best visibility and access.
- Hotels need to be directly adjacent to parking. This need is less critical for office or retail uses.
- Different project elements may appeal to distinct socioeconomic groups. Museums and cul-

tural facilities are attractive, but their patrons could be more affluent than workers in the office component. Prospective buyers of luxury condominiums might not like to see ground-floor retail space that caters to a less affluent demographic.

- Even if interactions among uses make sense when the project is first planned, changing market conditions can cause tenant targeting to shift. There is always the possibility that interactions among uses could be negative, not positive.

Notwithstanding the presumed advantages of mixed-use developments, the market analyst must start with the basics described in previous chapters: the analysis of market demand, an evaluation of the strengths and weaknesses of competitive properties, and a determination of potential market capture. These key steps are performed for each separate use as if each were to be independently located and built. The research can then be refined to reflect "cross sales" (if any) between colocated uses and to estimate any cumulative attraction in terms of greater market penetration and higher rates of capture of available outside patrons. It is also important to evaluate the socioeconomic levels of demand for each use: a luxury hotel is not usually in the same structure as a Target or a hospital outpatient facility.

Understanding Synergy

Where strong market synergy exists among the various uses in a mixed-use development, opportunities exist to realize market premiums from these combinations. Naturally, every mixed-use development is different in design, scale, and sources of market support, so there are no hard and fast rules. Nevertheless, certain land uses typically enhance the marketability of other uses. They are discussed briefly in the following sections.

Residential

Clearly, a powerful relationship can exist between residential development and retail space. Residents need a place to shop for basic necessities, creating demand for convenience stores and services such as dry cleaners. Mixed-use projects that include housing are attractive to young adults and empty nesters, creating support for restaurants, coffee bars, specialty food offerings, and drinking establishments. A variety of housing types (rental apartments, condominium flats, townhouses, and even single-family homes) cuts across several markets, allowing for faster absorption. A mix of household incomes can also help meet municipal goals for affordable housing.

People living in mixed-use developments will not be the most important source of sales for retailers (other than convenience stores). Consider a project with 500 housing units and 150,000 square feet of store space. Assuming that the retail space would need sales of at least $400 per square foot, each residential unit would have to spend $120,000 at the shopping center to make it successful—not very likely. Clearly, the shops and eateries in the mixed-use project would not survive if they failed to attract residents of other neighborhoods as well as nearby workers and visitors.

Even so, residents are an important source of vitality—and sales—for the retail space in a mixed-use project. In transit-oriented developments, residents patronize shops and restaurants during off-peak hours when commuters are at work or after they have gone home for the day. Because residents are on site, they will be the first to know about new store openings, and they will spread the word to others living within a reasonable distance.

Mixing housing and retail uses is not problem free. For example, mass-market stores (and especially big-box stores) may conflict with the image of quality sought by resident owners and renters. And there are issues to be resolved regarding noise, security, privacy, and parking.

Synergy between housing and office space is weaker, but there are fewer potential conflicts between these uses. A key question the market analyst must answer is whether the option of walking to work will attract residents. Employers may be intrigued by the idea of being able to find staff who live in the development, but residents may not be a good match for on-site employers. Surveys and focus groups with a sample of prospective residents and office employees will be needed.

Office

More than for any other use, demand for office space has been the driving force behind mixed-use developments in urban downtowns; nearly all such developments include an office component. However, office floors in a mixed-use tower may not convey the strong identity and corporate image of a free-

standing building; the office space may not appeal to all tenant types.

In low-rise suburban town centers, office space is often a secondary use, with retail and residential uses dominant. The demand for such office space tends to rely on the sense of place created by the project's other elements. As indicated earlier, analysts should not assume that a high percentage of people who work in a mixed-use development will want to live there, or vice versa.

Office development has clear market synergy with hotels, bars, and restaurants, and to a lesser extent with many types of retail activity. Most offices have occasional (if not frequent) out-of-town visitors and find it desirable to refer them to a nearby lodging facility. The extra boost to hotel patronage from a companion office facility can be readily estimated, especially if the likely types of office users are known and can be interviewed. Such research will indicate the frequency with which these firms attract overnight visitors and the types of accommodations those visitors prefer. Likewise, bars and restaurants are natural amenities expected by office employees and employers alike.

Limited synergy can also be gained from the location of medical office space within a mixed-use complex that includes both residential and general office components. As is the case for retailers, health care professionals will need to draw patronage from beyond the project's boundaries. The public needs to be aware that physicians' offices or clinics are part of the project. Affiliation with a hospital can help in marketing health practitioners to prospective patients living in and near the development.

Hotel

Hotels can be vital components of mixed-use developments for several reasons. A high-quality hotel can enhance the project's image and provide immediate name recognition. In some cases, secondary uses such as health clubs can be shared by hotel guests, office tenants, and residents, saving the hotel the cost of providing such facilities.

In assessing the feasibility of the hotel component, it is important not to overestimate the room demand that will be generated by the project's office tenants or residents. Neither use will generate enough room demand to support a hotel. In certain locations, hotel and residential uses can be totally or partially combined, offering hotel services to residential owners or allowing owners to put their residential units into the hotel room pool when they are traveling or living in another residence.

Hotel guests help support a mixed-use project's retail activity, especially unique specialty shops, bars and restaurants, sports arenas, and entertainment venues. However, the type of hotel can have a big influence on the amount of retail patronage that is generated. Most business travelers do not have much time to shop, whereas conference attendees, tourists, and vacationers do. Failure to understand the market niche served by the proposed hotel can lead to serious misjudgments of hotel-generated demand for retail goods and services in a mixed-use project.

Retail

Most mixed-use developments include a retail component, which can range from a small amount of convenience and service retail space ancillary to the project's major components to a super regional shopping center with a full array of shoppers' goods and services. In contrast to downtown projects, where office space is usually the dominant use, retail shops and entertainment have become the driving force in most suburban mixed-use development.

In the past, mixed-use projects might have included super-regional shopping malls, but as discussed in chapter 5, very few such spaces are now being built. Many of these were located in downtowns with the idea of attracting office workers, day-trippers, and tourists. Unfortunately, anticipated patronage did not generally meet projections, and retail performance in downtown mixed-use projects has been hard hit by anchor-store closings.

Specialty retail uses (upscale boutiques, unique gift shops) are also included in downtown mixed-use projects. Although such stores attract tourists and visitors to museums and entertainment venues (which may or may not be part of the mixed-use development), they will fail unless combined with other comparison shopping, entertainment, and dining uses that together achieve a critical mass capable of attracting patrons from a large trade area.

Depending on the scale and type of proposed retail space, the market analyst must determine the trade area that will be served, look at the demographics of demand, and evaluate competitive supply in the same way that would be done for a single-use shopping center. Once the amount of

supportable space for the other uses in the mix is determined, the analyst can calculate how much retail spending might be generated by the project's office, residential, or hotel components. The size of the site, available building area, and parking requirements will shape how much retail space is actually built.

Entertainment and Culture: Museums, Arenas, Movie Theaters

In addition to office, retail, and residential uses, several special property types can be part of mixed-use developments. Often the key factors affecting the success of a mixed-use development are related to the sense of place that the project can create and its activity cycle. Usually, a primary objective of mixed-use projects is to create an environment that generates activity throughout the day, including evenings and weekends. Entertainment and cultural facilities serve this objective well and have become key ingredients in many mixed-use developments.

From the developer's perspective, the addition of a cultural or entertainment facility to the project must be assessed to determine whether the facility would attract patrons, as well as what its impact would be on the remaining uses. For example, a public library does not generate revenue, but it generates activity; it may enhance the revenue of the overall project, but only by a few percentage points at best. Multiplex cinemas are the most common entertainment venue in mixed-use projects, but they are also the easiest to overbuild. They can put significant strains on parking and security for the entire project. In the 1990s, theme restaurants were viewed as entertainment uses, but most such chains are no longer successful.

Sometimes a museum or performing arts center is part of a mixed-use development. Such institutions add two elements that other entertainment cannot. They expand the mix in the audience, often adding well-educated and affluent visitors. Cultural facilities give the development a strong identity, marketing focus, and an image of quality. However, including these uses generally requires forging a public/private partnership involving private developers, public agencies, and nonprofit arts organizations.

Although bars and restaurants are not strictly "entertainment," they tend to have the greatest market synergy with both retail and other uses. Theaters are destinations in themselves and lack much interdependence with hotels, offices, or residential uses in a mixed-use project. For such projects, it is important to use market analysts who specialize in determining the demand for upscale restaurants, concert halls, museums, multiscreen cinemas, or arenas. Cultural facilities that are considering a move to a new location will have the data on their patrons, donors, and subscribers needed to determine levels of support for expanded space. They also know the location of their supporters, which is very helpful in identifying a market area.

Sports Facilities: Health Clubs, Spas, Marinas

As indicated earlier, health clubs are often included in mixed-use developments because potential revenues from residents living in the project (and those residing nearby) can be augmented by marketing the club to office workers. If the project contains a hotel, it may be willing to pay a fee to make the health club available to its guests rather than build its own exercise space or pool, thereby reducing its capital expenditures. Upscale health clubs in mixed-use projects also sell fitness apparel and may include spas offering a wide range of personal care services. Because fitness centers are now commonplace (and perhaps overbuilt), the market analyst will need to interview managers of existing facilities to learn about growth in membership and fee trends.

In waterfront locations, mixed-use projects may include commercial marinas. Purchasers of condominiums may have first rights to buy boat slips, but additional docks will be made available for seasonal or day use. Operators generate additional income from boat storage, fuel sales, and maintenance services. Analysts should study comparable marinas and learn about their sources of demand for an indication of how extensive the market potential might be. Slip usage statistics, seasonal and daily rental rate trends, and waiting lists for spaces at existing marinas are good indicators. State agencies will have information on boat registration trends, usually by county. As with other market sectors, it is crucial not to overstate potential and to understand that a new development cannot create demand—it can only capitalize on an untapped existing market.

Using Consumer Research

Insights into consumer preferences and cross-sales potential can best be derived from direct user research involving each of the key constituencies

In downtown Branson, Missouri, Branson Landing combines 450,000 square feet of shops and entertainment with residential condominiums, a convention hotel, and a 2,360-space parking garage.
Gayle Babcock – Architectural Imageworks, LLC

to be represented in the mixed-use development. This research would ideally involve some combination of focus group interviews, mail or Internet surveys, and interviews with representatives of potential retail and office tenants. The advantages and drawbacks of each approach have been discussed in earlier chapters. A combination of direct research methods may be most appropriate for a mixed-use project. Consumer research meets two objectives: getting user reaction to project plans, and determining whether tenants or users of one project component are likely to take advantage of other components. This helps the analyst determine whether the array of uses will make a rent premium achievable.

Putting It All Together

The final step in the market analysis for a mixed-use development is to estimate its overall marketability based on knowledge of the demand for and supply of effective competition. As in all market studies, this last step requires the application of informed judgment regarding the likely response of consumers to the development as envisioned. Large-scale mixed-use projects usually have few, if any, directly comparable projects in the same market area with a similar combination of uses (one notable exception would be North Michigan Avenue in Chicago, where at least three substantial mixed-use projects are situated within a few blocks of each other). If the market area has such analogues, their relative success or failure must be analyzed in detail. Analogues in other market can also be instructive in terms of hitting the right mix or avoiding pitfalls. At the same time, it is necessary to document and analyze the inventory of competitive space for each use component.

Even if each component is marketable on its own, the analyst must determine whether there is an increment of market capture (or higher rents/prices) for each use component that can be attributed to the cumulative attraction of the mix. As discussed above, cross-sales are "gravy"—they will not be sufficient to support a project component for which there is insufficient demand or excessive

supply in the market at large. After examining the market potential, the team of analysts will recommend refinements to the plan. These refinements could include changes in the size or location of project components, phasing, design, or marketing. Some elements might be dropped if there is insufficient synergy.

Mixed-use concepts are exciting, and it is easy to be unrealistically positive about a project's potential. Many projects have underperformed compared with predevelopment forecasts; some components have failed outright. There are many reasons why:

- Buildings with multiple uses cost more to construct. Each use may need a separate lobby and a separate bank of elevators. Noise reduction, fire protection, and ventilation systems will be more expensive. Residential components may be required to comply with costly building code provisions that are designed for commercial uses.
- In vertical mixed-use buildings, locating loading docks, freight elevators, and trash collection areas can be problematic. To make parking garages visually appealing, they must often be disguised with façades that look like office or residential buildings. Mixed-use design problems have solutions, but recouping the additional costs of those solutions may be difficult.
- Apartments "above the store" have different floor plate and design requirements than shops on the ground floor. Retail space is usually about 90 feet (27.4 meters) deep, whereas residential space is typically 60 feet (18.2 meters) deep. Retail space typically uses post-and-beam construction, with columns 24 to 30 feet (7.3 to 9.1 meters) apart, but residential space uses load-bearing wall construction, with columns 12 feet (3.7 meters) apart. Designers need to find an appropriate way to use the excess space on residential floors; apartments that have odd layouts will not be marketable.
- Assumptions about shared parking may not work out as expected. Government agencies may resist the concept, requiring that the number of parking spaces reflect the amount of space in each separate use. If there are issues with parking availability, residents and office tenants will demand reserved parking areas, and retailers may insist on typical suburban parking ratios before they will sign a lease.
- It is unrealistic for developers to expect that the mix of uses will generate sufficient demand to be self-supporting, no matter how innovative the project concept. Each component will need to generate a majority of its market support from outside the mixed-use development. Internal support will be a much smaller, albeit still marginally significant, share of the revenue stream.
- Demand for the component uses may not be equally strong. In the time it takes to plan and construct a multiuse project, the luxury residential market may weaken or competing office buildings may be started, for example.
- Financial projections often include overly generous rent or price premiums for space in mixed-use projects.
- Property managers who have office or retail expertise may not be familiar with how to deal with complaints from condominium owners or apartment renters. Even in low-density projects, residents will not be happy with early-morning commercial deliveries, restaurant odors, or unsightly trash collection areas.
- The first mixed-use project in a revitalizing neighborhood may be very successful for a while because it offers office space, housing, shopping, or services not available anywhere else nearby and because its rents are reasonable for the quality received. A project that is initially successful may be able to raise rents over time. But as the area improves, other mixed-use sites will be developed and more choices will be available to consumers; occupancy will slip.

Examples of noteworthy mixed-use developments are shown in table 8-1. In each example, the various project components contribute patrons to the other components, thereby achieving superior levels of occupancy, rents, and overall project value.

Mixed-use developments are risk-intensive and complicated real estate projects to implement. But they can be highly desirable and worthwhile for developers, residents, and the community as a whole. The premiums are difficult to quantify in a pro forma. Experience indicates that developers could see a premium of 15 to 25 percent on sales and rents for select components of a well-conceived mixed-use development compared to that for a single-use project. Much of this premium will be spent in advance on such features as higher-quality public environments, building finishes, and struc-

Table 8-1
Selected Mixed-Use Developments

Project/Location	Description	Land Uses	Size
Atlantic Station Atlanta, Ga.	138-acre mixed-use district on a brownfield site	Office Retail, entertainment Residential Hotel Parking	6,000,000 sq. ft. 2,000,000 sq. ft. 256 units 1,000 rooms 7,300 spaces
Belmar Lakewood, Colo.	104-acre Main Street plan on a former shopping mall site	Office Retail Residential Parking	900,000 sq. ft. 1,100,000 sq. ft. 635 units 9,540 spaces
Downtown Silver Spring Silver Spring, Md.	22-acre town center on a redevelopment site	Office Retail Hotel Public/cultural Parking	185,000 sq. ft. 440,000 sq. ft. 179 rooms 67,000 sq. ft. 3,800 spaces
Santana Row San Jose, Calif.	42-acre town center on a suburban redevelopment site	Retail Multifamily Hotel Parking	563,000 sq. ft. 529 units 213 rooms 4,000 spaces
Southside Works Pittsburgh, Pa.	37-acre urban redevelopment of a brownfield site	Office Retail Multifamily Parking	524,900 sq. ft. 288,100 sq. ft. 300 units 2,426 spaces
Time Warner Center New York, N.Y.	High-rise megastructure on a 3.4-acre urban site	Office Multifamily Retail Hotel Performing arts center Parking	1,100,000 sq. ft. 201 units 340,000 sq. ft. 248 rooms 3 venues; 1,970 seats 504 spaces

tured parking—which accounts for the higher risk. The challenge is to carefully determine early in the development process the proper balance between higher costs and higher payback.

Overview of Case Study

The case study of mixed-use development in Park Ridge, Illinois, involves a multiyear planning and development process that revitalized the central business district of an older, upscale Chicago suburb. The village was ultimately successful in attracting a mix of condominium apartments, townhouses, office space, shops, and restaurants that fit the character of the community.

Notes

1. Under performance zoning, buildings must conform to site coverage and height restrictions, but a wide range of uses is allowed as long as they do not harm surrounding properties by creating noise, generating fumes, blocking sunlight, increasing flood hazards, etc.

2. Michael Beyard and Bruce Leonard, "Process Before Place Making," *Urban Land*, August 2008, pp. 89–90.

Case Study 8.1

Mixed Use: Park Ridge, Illinois, 2000

The city of Park Ridge, Illinois, is an affluent inner-ring suburb of Chicago, located 15 miles northwest of downtown Chicago and 3.5 miles from O'Hare International Airport. It is in many respects the quintessential older suburb, with a business district and commuter rail station in its downtown (known as Uptown), and many walkable neighborhoods with tree-lined streets.

As Park Ridge developed, the Uptown business district grew to include a variety of stores, restaurants, small office buildings, and civic uses. By 2000, there was concern that the business district was tired looking and that it was losing business to other areas of the city and nearby suburbs. At that time, the city embarked on a comprehensive planning process to guide the future of Uptown. The first step in the process was an analysis of the market potential for retail, office, and residential uses to give the city a realistic assessment of the type and scale of development that could be supported and to assess the strengths and weaknesses of individual sites for future retail, office, residential and mixed-use projects. The results of the study guided decision making in the subsequent comprehensive plan for Uptown.

The market analysis incorporates the following scope of services:

- Review past studies and planning efforts in the city overall and specifically Uptown.
- Review all public participation reports and past surveys related to Uptown.
- Conduct in-person and telephone interviews with key individuals knowledgeable about real estate conditions and planning concerns, including public officials, real estate professionals, property owners, business leaders, and so on.
- Conduct field inspections of Uptown and competitive retail, office, and residential locations.
- Collect and analyze relevant demographic, economic, and real estate market data, including
  - — population and household characteristics;
  - — employment;
  - — commercial space inventory including occupancy, rents, and tenancy;
  - — retail sales tax revenues in total and by type of establishment;
  - — trade area retail spending potential; and
  - — residential sales prices and rents, and absorption and occupancy.
- Analyze the existing Uptown retail mix.
- Analyze the retail mix and residential development in five comparable downtowns (Highland Park, Wilmette, Arlington Heights, Glen Ellyn and Hinsdale) as case studies for Park Ridge.
- Identify the most marketable uses for Uptown, the sites most suitable for different types of development, and the issues that could affect the redevelopment of these sites.
- Quantify the amount of retail and office space that could be supported and make recommendations as to the potential users and their space requirements.
- Quantify the number and type of residential units, and the price points and rents that could be supported.

Project Area

Uptown's commercial buildings are generally one to two stories and were built from the early 20th century to the present. Key uses include the art deco Pickwick Building, listed on the National Register of Historic Places, which contains 12 storefronts, a 1,400-seat theater, and second-story offices; the Chase Bank office building; several residential and retail buildings; and an apartment building for senior citizens that was converted from a hotel. Additional anchoring properties include the Public Library, City Hall, and the Metra commuter rail depot. The overall impression is that of a flourishing community with a distinct and active commercial core. Surveys of residents indicate a strong desire to maintain this small-town atmosphere.

Access to Uptown Park Ridge is very good. It is approximately two miles north of the Cumberland Avenue exit from the Kennedy Expressway (I-90) that runs between downtown Chicago and O'Hare Airport, and the same distance east of the Touhy Avenue exit from the Tri-state Tollway (I-294), a major north-south bypass around Chicago. The Metra Northwest Line train station is in the center of Uptown and provides fast and frequent service to downtown Chicago.

Mixed Use: Park Ridge, Illinois, 2000

Heavy traffic at the six-corner intersection of Prospect Avenue, Touhy Avenue, and Northwest Highway had caused shoppers to avoid parking at a city-owned lot and hindered retail business on the north side of Touhy Avenue. Not surprisingly, traffic congestion was identified as a critical issue to the future of Uptown.

The study area is approximately 12 square blocks in the center of Uptown. The consultants were asked to evaluate five specific sites ranging from 1.5 to 3.75 acres that could be redevelopment opportunities in the near and medium term:

- Car dealership, 1.5 acres.
- Car dealership and adjacent corner lot, 1.5 acres.
- Car dealership, two properties of 1.6 acres and less than one acre.
- Library and adjoining parking lots, 3.75 acres (availability dependent on expansion or relocation of the current building).
- Parking lot over reservoir, 2.6 acres. The reservoir needs extensive repairs, and the city needs to study the long-term course of action. The reservoir could be relocated at a cost of approximately $18.5 million, allowing the site to be redeveloped.

Some, though not all, of the sites are available for development.

The zoning in the Uptown area is B-2, B-1, and B-4, which allowed general commercial uses, pedestrian-oriented retail and office space, and a commercial conservation district. The maximum building height as of right was 40 feet but could reach 60 feet in some locations with city council approval.

Demographic and Economic Trends

The consultant analyzed the demographics of Park Ridge residents, as well as residents within three miles of Uptown. Because it is the city's CBD, the primary market area was defined as the entire city of Park Ridge. Residents of such communities tend to see their downtowns as symbols of the municipality's identity and have a sense of ownership in their downtowns. The area within three miles is the total trade area and includes portions of other municipalities, some of which have their own CBDs. The designation of this area was based on the road network, ease of access, physical and perceptual barriers, and the quality, quantity, and locations of competitive shopping areas. The radius corresponded to these factors and gave potential developers and retailers data that they could use to compare Uptown to other potential locations.

As of 2000, demographic and economic trends that affect the area's market opportunities include the following:

- The population of Park Ridge was 35,200, a slight decline from 1990. Within the three-mile radius, the population was 155,400, also a slight decline from the previous decade.
- Park Ridge's market appeal is based on the high incomes and spending power of its residents.
- Household incomes are high compared with national averages ($84,800 versus $40,000 in 2000) but less than the average income of Chicago's most exclusive suburbs. This suggested that the price points for successful businesses and developers in this market would be at the top of the average range rather than the upper end.
- Incomes declined substantially as the distance from Uptown increased, further substantiating the positioning of products for the high-middle-income rather than upper-income market. Within a half mile, the 2000 median household income was greater than $90,000, but at three miles it was only $62,000.
- During the preceding decade the largest percentage increase was in the number of households with annual incomes over $100,000. This was partially explained by an increase in two-income households as well as in expensive new homes replacing more modest properties (the teardown phenomenon). Two-earner households seek convenience and are therefore attracted to nearby restaurants and convenience shopping.
- Average household size was larger closer to Uptown. Larger households spend more as they provide for the needs of children.
- The population of both Park Ridge and the three-mile ring was significantly older than the national average of 33, with a median age of 44.
- Homeownership rates were very high, causing high spending on items for the home such as furniture and decorative accessories.
- Almost half of all households were empty nesters, a very high share. These households were the primary target for new condominiums. Minimal growth was projected in this age and income range over the next five years.

Table 8.1-1
Park Ridge Demographic Trends

	1990 Census		2000 Census		2005 Projection		Change (%)	
	Number	Distribution (%)	Number	Distribution (%)	Number	Distribution (%)	1990–2000	2000–2005 Projection
Total population	36,372		35,230		34,430		–3.1	–2.3
Total households	13,553		13,451		13,098		–0.8	–2.6
Population by age								
0–5	2,417	6.6	2,476	7.0	2,378	6.9	2.5	–4.0
6–13	3,290	9.0	3,361	9.5	3,325	9.7	2.1	–1.1
14–17	1,761	4.8	1,578	4.5	1,520	4.4	–10.4	–3.7
18–24	2,882	7.9	2,201	6.2	1,996	5.8	–23.6	–9.3
25–34	4,491	12.3	3,217	9.1	2,702	7.8	–28.4	–16.0
35–44	5,389	14.8	5,600	15.9	5,275	15.3	3.9	–5.8
45–54	4,642	12.8	5,837	16.6	6,033	17.5	25.7	3.4
55–64	4,738	13.0	4,408	12.5	4,693	13.6	–7.0	6.5
65–74	3,894	10.7	3,245	9.2	3,088	9.0	–16.7	–4.8
75–84	2,114	5.8	2,309	6.6	2,275	6.6	9.2	–1.5
85+	757	2.1	1,002	2.8	1,151	3.3	32.4	14.9
Median age	42		44		45			
Employees			16,276					
Median housing value ($)			296,806					
Population density/square mile			5,066					
Vehicles			24,418					
Change in vehicles, 1990–2000 (%)			–0.75					
Average household size			2.62					

Source: MapInfo Corporation.

- There were an estimated 2,800 households over age 55 with incomes greater than $75,000. Some households with lower incomes ($50,000 to $75,000) could afford higher-priced condominiums if they were selling an expensive home. Even without this middle-income group, there was a sufficient base of income-qualified empty nesters to fill a new condominium building in Uptown.
- A small portion of the demand for condominiums, townhouses, and rental units would come from younger households with incomes over $75,000. As of 2000, there were an estimated 750 households under age 34 and another 1,700 between 35 and 44 years in this income range, for a total of 2,500 such households. However, it was expected that the majority of potential residents in the younger income categories were not already living in Park Ridge but could be attracted to the community by new townhouses, condominiums, or apartments.
- Private sector employment was approximately 17,800 in more than 1,300 establishments in the city. Over one-third of the city's private sector employment was in health services. Five of the city's largest employers were located in Uptown, providing an established base of office users on which to build.

Tables 8.1-1 and 8.1-2 depict demographic data for Park Ridge.

Table 8.1-2
Park Ridge Householders' Age by Income, 2000 to 2005

	2000		2005		Change, 2000–2005	
	Number	Share (%)	Number	Share (%)	Number	Share (%)
Total households	13,543	100.0	13,177	100.0	(366)	–2.7
Under 34	1,301	9.6	1,230	9.3	(71)	–5.5
Under $50,000	251	1.9	229	1.7	(22)	–8.8
$50,000–74,999	302	2.2	271	2.1	(31)	–10.3
$75,000–99,999	243	1.8	241	1.8	(2)	–0.8
$100,000 +	505	3.7	489	3.7	(16)	–3.2
35–44	2,789	20.6	2,735	20.8	(54)	–1.9
Under $50,000	410	3.0	369	2.8	(41)	–10.0
$50,000–74,999	652	4.8	625	4.7	(27)	–4.1
$75,000–99,999	489	3.6	501	3.8	12	2.5
$100,000 +	1,238	9.1	1,240	9.4	2	0.2
45–54	2,942	21.7	2,877	21.8	(65)	–2.2
Under $50,000	300	2.2	275	2.1	(25)	–8.3
$50,000–74,999	567	4.2	531	4.0	(36)	–6.3
$75,000–99,999	560	4.1	570	4.3	10	1.8
$100,000 +	1,515	11.2	1,501	11.4	(14)	–0.9
55–64	2,547	18.8	2,485	18.9	(62)	–2.4
Under $50,000	375	2.8	343	2.6	(32)	–8.5
$50,000–74,999	419	3.1	403	3.1	(16)	–3.8
$75,000–99,999	340	2.5	345	2.6	5	1.5
$100,000 +	1,413	10.4	1,394	10.6	(19)	–1.3
65+	3,964	29.3	3,850	29.2	(114)	–2.9
Under $50,000	2,209	16.3	2,077	15.8	(132)	–6.0
$50,000–74,999	683	5.0	676	5.1	(7)	–1.0
$75,000–99,999	476	3.5	497	3.8	21	4.4
$100,000 +	596	4.4	600	4.6	4	0.7

Sources: MapInfo Corporation; Valerie S. Kretchmer Associates, Inc.

Retail Development Potential

Store mix and business ownership in Uptown were analyzed. Commercial spaces ran from 500 to about 5,000 square feet. Net rents ranged fr om $17 to $25 per square foot. Except for two small strip centers, all retail spaces were at least 50 years old. A 35,000-square-foot strip center built in the late 1980s was considered subpar because of its poor visibility from the main roads.

Competing locations included nearby grocery-anchored shopping centers in Park Ridge, as well as a number of big-box centers and regional malls in nearby suburbs. Net rents for space outside Uptown ranged from $8 to $18 per square foot.

Demand for retail space in Uptown was strong and vacancies were low. The Illinois Department of Revenue publishes data on retail sales tax receipts by municipality by broad retail store category (general merchandise, food, eating and drinking, etc.). These data were useful in analyzing the extent to which stores in the municipality were capturing the resident-based retail sales potential.

Table 8.1-3
Analysis of Sales Potential, 2000

	Park Ridge	3-Mile Ring	Total
Sales Potential ($ Millions)	1,019.96	3,461.49	
Auto Related ($ Millions)	34.12	115.80	
Grocery ($ Millions)	217.72	738.85	
Adjusted Sales Potential ($ Millions)[a]	768.12	2,606.85	
Uptown Potential Share (%)	25.0	2.5	
Estimated Uptown Sales Potential ($ Millions)	192.03	65.17	257.20

Sources: SRC; Business Districts Inc.
a. Excludes automotive and grocery.

Reported 1999 sales tax receipts for the city suggested that nonautomotive sales were $254 million. When grocery sales were also excluded, total sales for the city were $182 million. (Note that because it was not possible to examine sales tax revenues from the Uptown area alone, these numbers covered all of Park Ridge.)

The consultant analyzed the potential demand for new retail stores in Uptown on the basis of actual retail sales. Many residents who lived outside of Park Ridge but within the Uptown trade area were strongly drawn to their own suburban downtowns, nearby malls, or businesses closer to their places of employment. Consequently, it was estimated that the area could attract 25 percent of the retail sales potential of Park Ridge residents, but a much smaller amount, perhaps only 2.5 percent, of the sales potential from residents in the larger trade area. Using these two capture rates, retail sales exclusive of automotive and grocery stores in Uptown Park Ridge could be approximately $257 million for 2000, as shown in table 8.1-3. Comparing actual sales with sales potential shows significant unmet potential for additional sales in apparel, restaurants, and home furnishings, as seen in table 8.1-4.

Interviews revealed a strong desire for both more shopping venues and preservation of the existing atmosphere and look of Uptown. In evaluating the available retail sites, it was important to recognize that not all sites are equal, and the success of a retail project is in part attributable to its specific site. Accessibility, preferably at a signalized intersection with a left-turn lane, and ample, visible parking are important factors.

Compatibility with nearby businesses and mutual attraction are also key factors. This means that there needs to be a sufficient number of stores selling the same types of merchandise so that shoppers can comparison shop. Finally, the best sites avoid the problems of congestion—frustrating access, long service lines, difficult parking, and overused amenities.

Using these criteria, the Uptown sites were analyzed for their potential for retail redevelopment on their own or as part of a mixed-use development. Depending on which sites would become available, up to 100,000 square feet of space could be supported in either freestanding buildings or as a lifestyle center.

Office Development Potential

The consultant analyzed the dynamics and relative desirability of the office market in both the city of Park Ridge and Uptown. Park Ridge is located within the O'Hare Airport office submarket (see table 8.1-5) and accounted for approximately 850,000 square feet, or 7 percent of the submarket's multitenant office space in 2000. With a vacancy rate of 11 percent and an average asking gross lease rate of $19.30 per square foot, it offered less expensive space with higher occupancy rates than most other nodes in this submarket.

However, the city was also home to a number of owner-occupied office buildings that housed consulting firms, trade associations, and medical companies, some of which were on the periphery of Uptown. Second-story office space catered to small, price-sensitive tenants at gross rents of $15 to $18 per square foot, with occupancy rates in excess of 95 percent.

Trends in the O'Hare office market over the preceding three years revealed a steady improvement in occupancy overall but a notable decline in occupancy in Class A space, which accounted for 40 percent of the total inventory. Average rents had been showing steady increases, and net absorption over the preceding year increased from –62,000 to +153,000 square feet.

Given the state of the O'Hare office submarket and the potential sites available in Uptown, there could be potential demand for additional office space in a freestanding building or as part of a mixed-use development. However, any building would need to attract one or more anchor

Table 8.1-4
Unmet Potential for Additional Annual Sales, 2000

Retail Category	Estimated Sales ($)	Resident Expenditure Potential ($)	Capture Rate (%)
Apparel	11,324,500	113,520,000	10.0
Eating and drinking	72,175,800	131,774,000	54.8
Furniture and household	5,278,700	33,283,000	15.9

Sources: Illinois Department of Revenue; SRC; Business Districts Inc.

Table 8.1-5
O'Hare Multitenant Office Market Conditions, Second Quarter 2000

		Average Space		Average Asking Rent ($/Sq. Ft.)[a]	
City	Total Sq. Ft.	Sq. Ft.	Share (%)	Multistory	Single Story
Overall	11,796,522	1,398,112	11.9	23.89	16.40
Park Ridge	842,028	92,273	11.0	19.32	–
Des Plaines	2,774,276	408,899	14.7	18.27	15.43
Rosemont	3,548,683	364,200	10.3	28.28	–
Chicago	4,127,303	475,517	11.5	27.96	20.75
Schiller Park	259,244	9,286	3.6	20.00	–
Bensenville	244,988	47,937	19.6	18.66	13.97

Source: Insignia/ESG, Inc.
a. Gross rent, which includes real estate taxes and operating expenses.

tenants or owner/occupants for a significant portion of the space before construction could begin. Potential occupants could be a trade association, a medical-related organization such as one of the nearby hospitals, or a financial services firm. The consultant contacted some of these potential users and found possible—though no definitive—interest in new Uptown office space. Depending on the level of commitment, a building of 40,000 to 50,000 square feet could be supported in Uptown.

Without such a commitment from a major user, a new building would have to attract small businesses or professional services firms. However, these types of businesses do not typically decide on a new location before a building is underway. Lacking an anchor tenant, a smaller, technologically up-to-date building with 20,000 to 30,000 square feet could be marketable. Potential tenants would likely need 1,500 to 5,000 square feet each, but would be more price-sensitive than the larger, high-profile firms found elsewhere in the O'Hare submarket. Some potential tenants were likely to be companies owned by local residents who desired a business location close to home.

The car dealership sites could be suitable for a free-standing office building of the scale described. Office space as part of a mixed-use building could work on these sites, as well as on the reservoir or library sites.

Residential

Uptown is a logical location for condominiums, rental apartments, and townhouses. Over the preceding five-year period, Park Ridge issued 660 permits for new housing units, 44 percent of which were multifamily. Since most potential Uptown condominium and townhouse buyers

At Uptown Park Ridge, in suburban Chicago, a master plan for revitalization helped spur mixed-use development. ***Valerie S. Kretchmer***

would be empty nesters selling single-family homes, it is important to understand the dynamics of the for-sale single-family home market. The housing market in the city was quite robust at the time of the analysis. The average single-family home price of almost $400,000 had increased by 20 percent over the preceding year; this average understated actual market dynamics, because many of the less expensive homes were sold as teardowns.

There were far fewer sales of single-family attached homes, because there were few such units in the city. The average price was almost $300,000, though several sold for $500,000. During the first eight months of 2000, 51 condominiums sold at an average price of $173,000 and a high of $350,000. These data understated the market since they did not include new properties, where a portion of the sales did not go through the multiple listing service. In this market, many new homes are sold directly by builders' sales staff, and not by Realtors.

For Sale

The most recently completed condominium and townhouse projects included three projects in Park Ridge and ten in nearby suburbs. Data collected included the number and size of units, prices, price per square foot, in-unit and common area amenities, parking, number of units sold, and absorption to date (see table 8.1-6).

The research on specific new projects in and near Park Ridge provided the necessary background data for determining what could work in Uptown. Developers reported that the market was very shallow for units in the $500,000 to $750,000 range. Many people who would be selling expensive homes were looking to downsize and buy a

Table 8.1-6
New Condominiums and Townhouses in Park Ridge Vicinity, Summer 2000

Name/Location/ Developer	Units	Unit Type (BR/BA)	Price Range ($)	Size (Sq. Ft.)	Price ($/Sq. Ft.)	Completion Date	Comments
Park Ridge Point 1705 Northwest Highway, Park Ridge The Regan Group and Philip I Mappa Interests	160 60	2/2 condo 3/2 condo TH	265,595–312,995 284,995–310,995 330,000–400,000	1,790–1861 1,804–1,976 2,000–2,900	149–168 157–158 138–180	1998–2000	TH sold out quickly. 5 mid-rise condo buildings with 32 units each. Last building to be finished 2000. 1 garage space/ unit. Smaller, less expensive units (high $100,000s to mid-$200,000s) sold out. Building 1 had some 1 BR units. Most condo buyers age 55+. THs attracted some younger buyers. Overlooks tollway. Attractive landscaping. 89% sold out.
Clifton Terrace 115 N. Clifton, Park Ridge Guido Neri	12	2/2	260,000–288,500	1,500–1,721	168–173	2000	Building sold out. Walking distance to train and Uptown. 2 parking spaces/unit. 2 balconies/unit. Mostly younger buyers.
1000–1016 Cedar Park Ridge The Dearborn Group	9	TH	Mid-high 200,000s	1,900–2,000	150	1998	Mostly young buyers attracted by proximity to Uptown and train.
Park Place 1327 Brown Street, Des Plaines R. Franczak & Associates	55	1/1 1/1 + den 2/1.5 2/2 2/2 + den 3/2	161,900 171,900–182,900 174,900 180,900–206,900 284,400–290,400 294,400	1,119 1,229–1,355 1,229 1,284–1,581 2,057–2,111 2,111	145 135–140 142 131–141 138 139	2000	Mid-rise. Half sold. Similar to other buildings in Des Plaines by same developer. Located downtown. Indoor parking.

second home in the Sunbelt. Or they preferred a less expensive condominium, leaving money for retirement or other future needs. This showed that demand would be much stronger for units in the $250,000 to $400,000 range with only a small number approaching $500,000 (in 2000 dollars).

Among developers interviewed, there was significant interest in constructing a mid-rise building in Uptown, with or without ground-level commercial space. Condominiums would cater primarily to empty nesters, with half of the residents likely to come from Park Ridge. The building would also be likely to attract some younger and middle-aged households seeking the convenience of the location.

The Uptown market could support 100 units, with half of the buyers likely coming from Park Ridge. This was based on a capture rate of 1.5 to 2 percent of households over age 55 with incomes greater than $75,000 yielding an estimated 42 to 56 Park Ridge households. The other half would likely come from outside Park Ridge and from younger households. Units in the $200,000 to $300,000 range would attract more of the younger buyers than those priced over $400,000.

The market analysis showed demand for one-bedroom units at the lower end of the price range, with the majority of units having two bedrooms, including some with dens. Several larger three-bedroom or combined units at $400,000 to $600,000 could be possible, but the majority of units were recommended to be priced at less than $400,000.

Demand was also strong for townhouses if suitable sites became available. However, a development consisting only of townhouses was not recommended, as it would be an underutilization of the potential development sites. A limited number of townhouses priced in the $350,000 to $500,000 range (in 2000 dollars) would be readily marketable in Uptown. The market analysis recommended two- and three-bedroom units, with smaller units in the range of 1,600 to 1,700 square feet and larger ones in the range of 2,500 to 3,000 square feet. All would need two-car garages and a high level of interior features.

Rental

Park Ridge had few apartments, and even fewer upscale rental buildings. Renter households accounted for only 11.5 percent of the occupied housing stock or 1,560 units.

The consultant surveyed the largest and best apartment buildings in and near Park Ridge. Most of the existing competition had small units, primarily studios and one bedrooms, and therefore catered to a younger clientele. These buildings maintained high occupancy rates and relatively high rents ranging from $700 to $950 for studio, one-bedroom, and two-bedroom apartments. It was notable that few apartments were listed for rent in Park Ridge, none of them upscale.

Most of the upscale apartments were in nearby suburban downtowns, where rents ranged from $850 for a studio to $1,585 for a large two-bedroom apartment. These buildings attracted a mix of tenants, including many young professionals, and had high occupancy rates and steady rent increases in recent years. On a per square foot basis, rents were in the range of $1.25 to $1.50.

Based on the limited supply and strong occupancy rates at better apartment buildings in nearby suburbs, there was an opportunity for new, upscale rental units in Uptown. A building there could achieve rents of $1.75 per square foot, equal to $1,050 to $1,100 for a studio, $1,250 to $1,400 for a one-bedroom, and $1,750 to $2,000 for a two-bedroom unit. New upscale buildings in comparable suburbs had achieved these rents.

Rental apartments would be particularly attractive to young working households, empty nesters, and retirees. Divorced men and women with family ties to Park Ridge would also be a source of demand. With its convenient location to both downtown Chicago and the northwest suburbs, it would also attract roommates who work in different parts of the metropolitan area.

Apartment developers expressed interest in new rental construction in Uptown. Depending on the configuration and sites, one or two mid-rise buildings with a total of 100 units could readily be supported here.

Recommendations and Conclusions

At the time of this market study, it was unclear which of the potential Uptown sites would be available for development. In addition, residents had significant concerns about height and density. The density permitted by the city would have a significant bearing on the price a developer would be willing to pay for the land. Existing zoning would not have permitted some of the marketable development opportunities. Interviews and public meetings showed support for a mid-rise five- to seven-story building but not a ten-story building.

The recommendations were based on the market study, as well as the likely density and height that would be accept-

able to public officials and residents. They provided a range of uses depending on how much land would become available.

- Two 1.5-acre sites could be suitable for a freestanding office building in the range of 50,000 square feet or a mixed-use project with residential space and 20,000 to 30,000 square feet of office space. A mixed-use building with residential and ground-floor retail space could be appropriate on one site, though it would not be likely to attract the national retailers desired by the city.
- A full block with 5.5 acres could hold a larger retail lifestyle center or include a broader mix of uses in multiple buildings, possibly with shared parking. One parcel would be appropriate for townhouses or a small residential building, possibly with ground-floor commercial or retail uses.
- If the city-owned reservoir parking lot were to become available, it would be a far better retail site than the car-dealership sites and would be suitable for a 100,000-square-foot retail/restaurant development, with or without some office space on upper levels. The reservoir site could be developed on its own or as a subsequent phase of a lifestyle center on one of the other sites. If the reservoir site were developed for retail, other sites could be used for residential and/or office development, or for a mixed-use building with a small amount of ground-floor retail space for convenience and service businesses.
- The library and its adjoining parking lot occupy the preferred location for significant retail development owing to its excellent visibility, accessibility, and connection to the Uptown business district. This three-acre site has tremendous appeal for developers of high-quality retail space. A developer could add six to eight highly sought specialty retailers such as book, clothing, and home furnishing stores in up to 80,000 square feet of new space. This would expand the drawing power of Uptown to make it the "shopping up" destination for an expanded total trade area. Because this site connects so well with existing development, the newly attracted customers would also support other Uptown businesses. The other sites would then be suitable for residential or office development.

Epilogue

In 2002, the city of Park Ridge completed its Uptown comprehensive plan, which included recommendations regarding land use, zoning, urban design, density, building height, traffic, parking, public transportation, and pedestrian access, and an implementation strategy. The city also commissioned a tax increment finance (TIF) eligibility study to determine the boundaries of a TIF district and a plan for using TIF funds. The city approved the TIF plan in 2003 and used funds to relocate the reservoir and the city parking lot.

The city already owned one of the car-dealership sites and began to negotiate with the owner of another key parcel. During that time, the Park Ridge Library also engaged in a study to determine whether it should relocate, expand, or renovate its existing building. The library board and city council ultimately decided to keep the library in Uptown and renovate rather than move or expand, so the library site was not available for redevelopment.

The city issued a request for proposals in 2003 for master developers for the car dealership and reservoir sites and received numerous responses from highly qualified teams of developers. In 2004, the city of Park Ridge selected a team that included a successful Chicago-area residential developer in partnership with a well-respected local retail development and brokerage firm. The development plan includes 70,800 square feet of retail space and 189 residential units.

The first phase of the residential development was 24 townhouses, completed in 2006 on one of the sites facing a park at the west end of the project area. The second phase, which included 25,000 square feet of retail space, was completed in early 2007. The third phase includes 46,000 square feet of ground-floor retail space with three and four floors of residential condominiums on the reservoir site.

Prices averaged $697,000 for the townhouses, which sold out quickly. The first phase of condominiums averaged $354,000 and sold out within a year. The third residential phase has condominiums ranging from $365,000 for a large one-bedroom unit to $870,000 for a large three-bedroom unit, with an average price of $550,000 as of 2008. The residential and retail buildings in this phase were scheduled for completion by late 2009, though the economic slowdown may extend that date another year.

Appendix A

Webliography

($ indicates data available for a fee or by subscription, although the site may offer basic information free)

Demographics

(Population, households, income, lifestyles)

Claritas

www.claritas.com ($)

Decennial census data; current-year population, household, age, and income estimates; five-year projections. Age-by-income cross-tabulations. Available for states, counties, MSAs, municipalities, ZIP codes, and customized geographies.

Claritas

www.mybestsegments.com ($)

Current-year PRIZM psychographics by place of residence. Workplace PRIZM for employees by place of work.

Demographics Now

www.demographicsnow.com ($)

Decennial census data; current-year population, household, age, and income estimates; five-year projections. Available for states, counties, MSAs, municipalities, ZIP codes, and customized geographies, as well as Mosaic lifestyle clusters.

Demographics USA

www.demographicsusa.com ($)

County (200 variables) and ZIP code data (50 variables) covering population, age distribution, percentage with college education, household, income, and purchasing power. Current estimates and five-year projections.

ESRI

www.esri.com ($)

Decennial census data; current-year population, household, age, and income estimates; five-year projections. Age-by-income cross-tabulations. Available for states, counties, MSAs, municipalities, ZIP codes, and customized geographies, as well as Tapestry lifestyle clusters.

Moody's Economy.com

www.economy.com ($)

Historic data, current estimates, and 30-year forecasts for states, counties, and metropolitan areas and divisions, covering population by age, number of households, net migration, average and median household income, and per capita income.

Policy Map (The Reinvestment Fund)

www.policymap.com (free and $)

4,000 variables, including decennial census, covering demographics, housing, schools, and neighborhood conditions. Uses Claritas projections. Government data free; current estimates and projections, customized geographies, and mapping by subscription.

U.S. Census Bureau

www.factfinder.census.gov

American Factfinder (portal to decennial census, American Community Survey). Data on population, age distribution, household and family characteristics, mobility, income. Summary tables and customized data searches. Tract maps.

Woods & Poole

www.woodsandpoole.com ($)

State, county, and metropolitan area forecasts for 900 demographic and economic variables to 2040, updated annually.

Labor Force, Employment, and Business Statistics

InfoUSA

www.infousa.com ($)

Employment and other information for businesses, available for census tracts, ZIP codes, municipalities, etc. Sortable by NAICS code.

Moody's Economy.com

www.economy.com ($)

Historic data, current estimates, and 30-year forecasts for states, counties, and metropolitan areas and divisions; including employment by two- and

three-digit NAICS codes; labor force; unemployment rate; and gross metropolitan product.

U.S. Census Bureau
www.census.gov/epcd/cbp/view/intro.html
County Business Patterns—establishments and employment for counties, larger municipalities, and ZIP codes, by industry, using NAICS codes.

U.S. Department of Labor, Bureau of Labor Statistics
www.bls.gov
www.bls.gov/sae (current employment statistics)
www.bls.gov/bls/blswage.htm (wages by occupation)
www.bls.gov/cew/cewlq.htm (location quotients)
www.bls.gov/opub/ee/home.htm (Employment and Earnings publication)
Portal to data on labor force by place of residence, unemployment rates, and at-place employment by industry; wages; and location quotients. Data available by state, county, and MSA, and for larger municipalities.

Housing

Case-Shiller Index
www2.standardandpoors.com
Home price indices for the United States and for 20 of the larger markets; based on repeat sales; revised monthly.

CoStar
www.costar.com ($)
Historic and current data and forecasts for apartment market performance; information on individual properties. Coverage of over 140 metropolitan markets and submarkets. Reports include demographic and employment background data. Searchable online databases on individual properties.

Federal Financial Institutions Examination Council
www.ffiec.gov/hmda/hmdaproducts.htm
Data regarding mortgage activity, submitted under the Home Mortgage Disclosure Act.

Federal Housing Finance Agency (formerly OFHEO)
www.fhfa.gov
Housing price index and home price calculator for states and metropolitan areas.

Hanley Wood Market Intelligence
www.hwmarketintelligence.com ($)
Project-specific information on for-sale housing developments underway. Also publishes "U.S. Housing Markets," quarterly reports covering all metropolitan areas.

Harvard Joint Center for Housing Studies
www.jchs.harvard.edu
"State of the Nation's Housing," annual report.

M/PF Research
www.mpfyieldstar.com ($)
Apartment market reports for selected metropolitan areas and submarkets, mostly in southern and western states, plus Washington, D.C., Chicago, Boston, and Denver.

National Apartment Association
www.naahq.org ($)
Publishes an apartment income and expense survey; compiles and analyzes government data on construction activity and vacancy.

National Association of Homebuilders
www.nahb.org ($)
Wide variety of magazines, newsletters, and special reports on housing design, finance, consumer preferences, and construction activity.

National Association of Realtors
www.realtor.com
Searchable database of for-sale housing listings.

www.realtor.org/research/research/metroprice
Median home and condominium sales prices for metropolitan areas, updated quarterly.

www.realtor.org/research/research/housinginx
Housing Affordability Index, monthly and quarterly, for metropolitan areas.

Appendix A: Webliography

National Investment Center for the Senior Housing Industry
www.nic.org ($)
Reports on supply and performance of housing for seniors, by metropolitan area.

National Low Income Housing Coalition
www.nlihc.org
Information on housing affordability gaps for state and metropolitan areas.

National MultiHousing Council
www.nmhc.org
Research on national apartment market conditions and tenant characteristics. Many reports restricted to members only.

Novogradac & Company
http://compsmart.novoco.com ($)
Searchable database on low-income tax credit properties. Also offers demographic data.

Portfolio & Property Research
www.ppr.info ($)
Historic and current data and forecasts for apartment market performance; information on individual properties. Coverage of numerous metropolitan markets and submarkets. Reports include demographic and employment background data.

REIS
www.reis.com ($)
Historic and current data and forecasts for apartment market performance; information on individual properties. Coverage of most metropolitan markets and submarkets. Reports include demographic and employment background data. Searchable online databases on individual properties.

Torto Wheaton Research
www.twr.com ($)
Historic and current data and forecasts for apartment market performance; information on individual properties. Coverage of metropolitan markets and submarkets varies by source. Reports typically include demographic and employment background data. TWR publishes a construction pipeline report in conjunction with F.W. Dodge.

Trulia
www.trulia.com
Searchable online database and maps of recent home sales and current listings.

U.S. Census Bureau
www.census.gov/hhes/www/housing/hvs/hvs.html
Housing vacancy and homeownership survey for states and 75 largest metropolitan areas.

www.census.gov/const/www/charindex.html
Characteristics of new housing (single-family and multifamily) by purpose (own/rent). National only.

www.census.gov/hhes/www/housing/ahs/ahs.html
American Housing Survey; data on housing stock, tenure, financial characteristics, and neighborhood indicators. National data collected every two years; data for 47 metropolitan areas collected every six years.

www.census.gov/const/permitsindex.html
Building permit data for states, counties, metropolitan areas, and permit-issuing places.

U.S. Department of Housing and Urban Development
www.huduser.org/publications/econdev/mkt_analysis.html
Metropolitan area housing market reports; ten to 20 issued annually.

http://socds.huduser.org/index.html
Portal for HUD State of the Cities Database. Decennial Census data, unemployment rates, city extracts from County Business Patterns, crime rates, and building permits.

www.huduser.org/periodicals/ushmc.html
Quarterly report on national and regional market conditions; each issue features a review of selected metropolitan markets.

www.huduser.org/datasets/usps.html
Quarterly vacancy survey conducted by postal letter carriers. Tract-level data can be downloaded.

Zillow
www.zillow.com
Searchable online database and maps of recent home sales and current listings.

Apartment Web sites and magazines
www.rent.com
www.apartments.com
www.forrent.com
www.apartmentguide.com
www.move.com
Consumer-oriented print and online apartment listings.

Retail Space and Retail Sales

Chain Store Guide
www.leadingchaintenants.com ($)
Searchable database of retail stores and their location and property preferences.

Claritas
www.claritas.com ($)
Reports on retail expenditure potential, sales, inflow, and leakage for user-specified geographic areas.

CoStar
www.costar.com ($)
Information on shopping centers (size, tenants, age, ownership, management), searchable by state, metropolitan area, and place.

Demographics Now
www.DemographicsNow.com ($)
Reports on retail expenditure potential, sales, inflow, and leakage for user-specified geographic areas.

Directory of Major Malls
www.shoppingcenters.com ($)
Directory (in print, on line, or on CD-ROM) for U.S. and Canadian centers over 225,000 square feet. Also publishes *Shopping Center Digest*.

ESRI
www.ESRI.com ($)
Reports on retail expenditure potential, sales, inflow, and leakage for user-specified geographic areas.

Food Marketing Institute
www.fmi.org ($)
Information on construction trends, store design, and sales for the supermarket industry.

International Council of Shopping Centers
www.icsc.org ($)
Publishes reports on mall sales by type of store; research and publications (*Shopping Centers Today*) on retail trends and the shopping center industry; directories of shopping centers and outlet malls. Publishes *Global Shopping Center* directory, available to ICSC members only.

National Retail Federation
www.nrf.org
www.stores.org ($)
Represents store operators. Publishes *STORES* magazine; NRF foundation sponsors research ($), tracks effects of online sales.

Plain Vanilla Shell
www.plainvanillashell.com ($)
Searchable tenant database. Links to reports on store chain performance and tenant mix at individual retail properties, including the *Retail Tenant Directory*.

Retail Tenant Directory
www.retailtenants.com ($)
Annual directory available in print or on CD-ROM.

Retail Traffic
www.retailtrafficmag.com ($)
Tracks store expansion plans.

Urban Land Institute
www.uli.org ($)
Publishes *Dollars and Cents of Shopping Centers/ The SCORE* in conjunction with ICSC biannually. Data on sales, size of stores, income, and expenses by type of center and type of store.

U.S. Bureau of Labor Statistics
www.bls.gov/cex/
Consumer Expenditure Survey.

U.S. Census Bureau
http://www.census.gov/retail/
Annual Retail Trade Survey, including data on sales and gross margins by store type; includes food services. Bureau also publishes monthly sales and e-commerce reports.

http://factfinder.census.gov/home/saff/main.html?_lang=en
2002 Economic Census of Retail Trade, available through American Fact Finder portal. Data by state, county, metropolitan area, and place, by store type (three-digit or more NAICS codes). Data for codes with few establishments are hidden to protect confidentiality. 2007 data to be released in 2009–10. ZIP code information available in 2011.

Office and Industrial Properties

Association of University Research Parks
www.aurp.net
Represents university-affiliated research facilities.

Building Owners and Managers Association (BOMA)
www.boma.org
Sets standards for measuring rentable area. Annual data on income and expenses for office buildings (*Experience Exchange Report*).

Commercial Real Estate Development Association (also known as NAIOP)
www.naiop.org
www.naiop.org/foundation/office&industrialterms.pdf
Glossary of terms.

www.naiop.org/foundation/home.cfm
Research on special topics related to office and industrial space.

Commercial Space Online
www.officespace.com
Searchable database of available office properties; summary statistics on vacancy rates, sublease space, and average rents.

Global Insight
www.globalinsight.com ($)
Reports on gross metropolitan product, freight flows, and trade dynamics.

Portfolio & Property Research
www.ppr.com ($)
Metropolitan and submarket reports on rent growth, vacancy, net absorption, transactions, and projected growth in supply and demand. *Construction Trak* report for planned offices by type, including status; uses data from Reed Construction.

U.S. Bureau of Labor Statistics
www.bls.gov/emp/empoils.htm
National employment and occupation matrix (for calculating office-prone employment).

Travel, Tourism, and Lodging

American Hotel and Lodging Association
www.ahla.org ($)
Publishes an annual profile of the lodging industry.

American Resort Development Association
www.arda.org
Trade association representing the timeshare industry.

D.K. Shifflet
www.dksa.com ($)
Consumer travel research, guest satisfaction surveys.

Hotel & Travel Index
www.hoteltravelindex.travelweekly.com
Extensive, worldwide hotel database.

Hotels Magazine
www.hotelsmag.com ($)
Trade journal for the hotel industry.

International Association of Conference Centers
www.iacc.org
Trade association representing conference center properties.

Lodging Econometrics
www.lodgingintelligence.com ($)
Construction summaries and data for individual projects; forecasts; and valuation trends.

Mobil Travel Guide
www.mobiltravelguide.howstuffworks.com ($)
Guides with details and ratings of hotels by location.

Official Meeting Facilities Guide
www.omfg.com
Extensive worldwide hotel database. Can be sorted by various criteria.

PKF Hospitality
www.pkfc.com ($)
www.pkfhotels.com ($)
Monthly and annual reports on hotel performance, nationally and for metropolitan areas, by type of hotel. Publishes *Trends in the Hotel Industry* annual report; *Hotel Horizons* forecasts; and custom *Benchmarker* reports. Links to local convention and visitors bureau sites.

Smith Travel Research
www.strglobal.com ($)
Customizable reports on local hotel market performance. *Market Pipeline Report* on supply, using TWR/Dodge construction data.

U.S. Commerce Department, Office of Travel and Tourism Industries
www.tinet.ita.doc.gov
Data on international travel to the United States by origin and destination.

U.S. Travel Association
www.tia.org ($)
Statistics and news on travel volumes and traveler characteristics.

U.S. Travel Insights
www.globalinsight.com ($)
Quarterly updates on U.S.-origin domestic and international travel volume and prices, produced jointly with D.K. Shifflett.

Web sites of hotel associations, local chambers of commerce, and convention and visitors bureaus.

National and Global Commercial Real Estate Brokerages

CB Richard Ellis
www.cbre.com

Colliers
www.colliers.com

Cushman & Wakefield
www.cushwake.com

Grubb & Ellis
www.grubb-ellis.com

Marcus & Millicap
www.marcusmillichap.com/services/research

Newmark, Knight, Frank
www.newmarkkf.com
Global, national, and metropolitan area–level data and analysis of commercial markets and apartments. Inventory, leasing activity, vacancy rates, rents, and sublet space. Reports often compare market conditions across U.S. metropolitan areas. Coverage and access varies by firm.

Appendix B

Glossary

Absorption rate. The pace at which properties are sold or leased. For apartments or for-sale homes, absorption is usually expressed as units sold or leased per month. For office or retail space, the measure is square feet of space leased per quarter or per year.

Adaptive use. Creating a new use for an older, but sound, structure.

Affordable housing. Housing units created to serve households earning less than 60 percent (rental) or 80 to 120 percent (for sale) of a metropolitan area's median income.

Amenity. Nonmonetary tangible or intangible benefit derived from real property (often offered to a lessee), typically recreational facilities, concierge services, or planned activities.

Anchor tenant. The major chain(s) or department store(s) in a shopping center, positioned to produce traffic for the smaller stores in the facility.

Appraisal. An opinion or estimate of value substantiated by various analyses.

Appreciation. An increase in the value of a house due to changes in market conditions or other causes.

Asset manager. A person who balances risk and reward in managing investment portfolios, including but not limited to real property and improvements. Asset managers either oversee property management or are responsible for it themselves.

Attached housing. Two or more dwelling units constructed with party walls (for example, townhouses or stacked flats).

Benchmarking. Updating and/or revising a data series based on new information or methodological changes.

Bottom-up approach. An approach to developing an analysis based on the most disaggregated data available.

Broker. A person who, for a commission, acts as the agent of another in the process of buying, selling, leasing, or managing property rights.

Brokerage. The business of a broker that includes all the functions necessary to market a seller's property and represent the seller's (principal's) best interests.

Build to suit. Construction of land improvements according to a tenant's or purchaser's specifications.

Building Owners and Managers Association International (BOMA). A trade association of owners and managers of apartment and office buildings.

Buildout. Construction of specific interior finishes to a tenant's specifications.

CAM (common area maintenance). Charges paid in a shopping center (in addition to base rent) to cover the cost of maintaining hallways, parking areas, etc., as well as for security and advertising.

Capital. Money or property invested in an asset for the creation of wealth; alternatively, the surplus of production over consumption.

Capitalization. The process of estimating value by discounting stabilized net operating income at an appropriate rate.

Capitalization rate (cap rate). The rate, expressed as a percentage, at which a future flow of income is converted into a present-value figure.

Capture rate. Percentage of total demand within a targeted market segment that a project can attract. Sometimes referred to as penetration rate.

Appendix B: Glossary

Cash flow analysis. The analysis of income and expenditures, usually on a year-by-year basis, from the project's inception to completion.

CBD (central business district). The center of commercial activity within a town or city; usually the largest and oldest concentration of such activity.

Client. The individual or group for which a property is developed. Could include community organizations, businesses, corporations, government agencies, and individual homeowners.

Commercial real estate. Improved real estate held for the production of income through leases for commercial or business use (for example, office buildings, retail shops, and shopping centers).

Common area. Areas of a property used or available for use by multiple parties. Common areas in office buildings include lobbies, stairways, hallways, restrooms, courtyards, etc. In an apartment building, they would include community rooms, clubhouses, lobbies, fitness centers, and rooftop social spaces.

Community development corporations (CDCs). Entrepreneurial institutions that combine public and private resources to aid in the development of socioeconomically disadvantaged areas.

Comparables (or comparable property). Properties that are similar to the subject; used to determine likely prices, rents, or property values.

Competitive clusters. The aggregation of office and industrial buildings and sites near highly traveled areas, such as along interstate highways and freight lines, or surrounding centers of activity such as airports, universities, and hospitals.

Comprehensive planning. Long-range planning by a local or regional government encompassing the entire area of a community and integrating all elements related to its physical development, such as housing, recreation, open space, and economic development.

Concessions. Discount given to prospective tenants to induce them to sign a lease, typically in the form of free rent or cash for tenant improvements.

Condominium. A form of joint ownership and control of property in which specified volumes of space (for example, apartments) are owned individually while the common elements of the building (for example, outside walls and lobbies) are owned jointly.

Construction loan. A loan to be used for the construction of improvements on real estate, usually made by a commercial bank to a builder and usually running six months to two years.

Convenience goods. Items typically purchased at the most convenient locations. They are usually not very expensive or long-lasting, and their purchase involves little deliberation. Convenience goods are distinguished from shoppers' goods when performing retail market studies.

Cooperative. A form of common property ownership in which the residents of an apartment building do not own their units, but rather own shares in a corporation that owns the property.

Credit tenant. Strong national retailers with solid credit ratings, needed in order to acquire financing for a shopping center.

Demographics. Information on population and household characteristics by location, including such aspects as age, employment, earnings, and education.

Density. A measure of the number of housing units or amount of commercial/industrial space per acre. For office and industrial space, often expressed as a floor/area ratio (FAR) of the building size to the lot size.

Appendix B: Glossary

Detached housing. A freestanding dwelling unit, normally single-family, situated on its own lot.

Developer. One who prepares raw land for improvement by installing roads, utilities, and other infrastructure; may also be a builder (one who actually constructs improvements on real estate).

Development fee. Compensation paid to a developer in return for managing a development project on behalf of a client such as a corporation or public sector agency.

Development process. The process of preparing raw land so that it becomes suitable for the erection of buildings; generally involves obtaining necessary government approvals, clearing and grading land, and installing roads and utility services.

Development team. The range of participants engaged by a developer, both public and private, to assist in the planning, design, construction, marketing, and management of a development project.

Discounted cash flow. Present value of monies to be received in the future; determined by multiplying projected cash flows by the discount factor.

Draws. Any incentive—whether it be access to amenities such as good school systems and places of entertainment or underlying social, economic, and environmental characteristics—that stimulates growth and development in a geographic area.

Due diligence. The timely analytical evaluation of all reasonable considerations, including environmental, financial, legal, and other aspects, that relate to developing a property.

Econometrics. The application of statistical methods to the study of economic data and problems.

Economic drivers. Industries that stimulate growth and create spin-off jobs in a region. Sometimes called export industries, because their products or services are exported beyond the local region.

Economies of scale. Financial advantages that result from business expansion. Refers to the market trend that occurs when the producer's or provider's average cost per unit decreases as the size or scale of the operation increases.

Effective rent. Rental income after deductions for financial concessions such as no-rent periods during a lease term.

Eminent domain. The power of a public authority to condemn and take property for public use on payment of just compensation.

Equity. That portion of an ownership interest in real property or other securities that is owned outright, that is, above the amounts financed.

Escalation clause. A provision in a lease that permits a landlord to pass through increases in real estate taxes and operating expenses to tenants, with each tenant paying a proportional share. Also a mortgage clause that allows the lender to increase the interest rate based on the terms of the note.

FAR (floor/area ratio). The ratio of floor area to land area, expressed as a percentage or decimal, that is determined by dividing the total floor area of the building by the area of the lot. Typically used as a formula for regulating building volume.

Feasibility study. A report that uses market analysis findings and financial modeling to determine a project's viability.

Fee simple. The most extensive interest in land recognized by law. Absolute ownership subject only to the limitations of police power, taxation, eminent domain, escheat, and private restrictions of record.

Focus group. Market analysis tool in which a moderator presents a set of carefully prepared questions to a group, usually eight to 12 people, to collect detailed, specific information on consumer attitudes and preferences.

Appendix B: Glossary

GAFO. In retailing, general merchandise, apparel, furniture, and other merchandise. Also called shoppers' goods.

Garden apartments. Two- or three-story multifamily housing that features low density, ample open space around buildings, and on-site parking.

Gravity model. Reilly's Law of Retail Gravitation, which states that shoppers will travel to the largest retail center that is most easily reached.

Gross leasable area. The total floor area of a commercial building, leased to a tenant, which may include restrooms, stairwells, elevators, and basements.

Gross lease. An agreement whereby the landlord pays for taxes, insurance, repairs, and other costs (including some or all utilities and trash removal) for space occupied by the tenant.

Gross leasing activity. The sum of all leases signed during a given time period, including renewals and leases signed in new buildings.

Ground lease. A long-term lease on a parcel of land, separate from and exclusive of the improvements on that land.

High rise. Tall building or skyscraper, usually more than 16 stories for office buildings or ten stories for apartments.

Highest and best use. The property use that, at a given time, is deemed likely to product the greatest net return in the forseeable future, whether or not it is the current use of the property.

Improved property. Land that has been developed.

Industrial park. A large tract of improved land used for a variety of light industrial and manufacturing uses. Users either purchase or lease individual sites.

Inflow. Retail spending from consumers living outside the trade area. (See "leakage.")

Infrastructure. Services and facilities provided by a municipality, including roads, highways, water, sewerage, emergency services, parks and recreation, and on the like. Can also be privately provided.

Intelligent building. A building that incorporates technologically advanced features to facilitate communications, information processing, energy conservation, and tenant services.

International Council of Shopping Centers (ICSC). A trade association for owners, developers, and managers of shopping centers.

Joint venture. An association of two or more firms or individuals to carry on a single business enterprise for profit.

Land development. The process of preparing raw land for the construction of improvements, through clearing, grading, installing utilities, etc.

Leakage. The portion of aggregate spendable income that is unsatisfied by existing retail offerings and escapes to retailers beyond the local trade area.

Lease. A contract that gives the lessor (the tenant) the right of possession for a period of time in return for paying rent to the lessee (the landlord).

Lease concession. A benefit to a tenant to induce him to enter into a lease; usually takes the form of one month or more of free rent.

Lease-up. Period during which a real estate rental property is marketed, leasing agreements are signed, and tenants begin to move in.

Lessee. The tenant who is renting a property.

Lessor. The landlord in a lease agreement.

Lien. The right to hold property as security until the debt that it secures is paid. A mortgage is one type of lien.

Lifestyle cluster. Population grouping based on prospective consumer location (urban, suburban, rural, small town), employment (white or blue collar, retired), education (high school versus college degree), affluence and wealth, age, social status, and psychographics.

Limited partnership. A partnership that restricts the personal liability of the limited partners to the amount of their investment.

Loan-to-value (LTV) ratio. The relationship between the amount of a mortgage loan and the value of the real estate securing it; the loan amount divided by market value.

Location quotient. Market analysis tool used to compare local workforce estimates with national averages, derived by taking the percentages of the workforce employed in each major industry locally and dividing them by the percentages of the workforce employed in those industry groups nationally.

Low rise. A building, usually in outlying areas, with one to three stories.

Market analysis. The synthesis of supply and demand analysis in a particular market.

Market area. The geographical region from which the majority of demand and the majority of competitors are located.

Market niche. A subgroup within a market segment that is distinguishable from the rest of the segment by certain characteristics.

Market penetration. The percentage of total demand in a market area that a project captures.

Market research. A study of the needs of consumers used to develop a product that is appropriate for an identifiable market segment.

Market screening. A broad overview analysis of the economics and demographics of a region.

Marquee tenants. Major tenants in an office building.

Mid rise. A building with four to 15 stories.

Mixed-use development. A development, in one building or several buildings, that combines at least three significant revenue-producing uses that are physically and functionally integrated and developed in conformance with a coherent plan.

MLS (multiple listing service). A computerized pool of information, shared by real estate agents, showing houses and condominiums currently for sale or recently sold.

Mortgage. An instrument used in some states (in lieu of a deed of trust) to make real estate the security for a debt. A two-party instrument between a mortgagor (a borrower) and a mortgagee (a lender).

Move-up housing. Typically, larger, more expensive homes that homeowners buy as their incomes increase. First homes, or "starter homes," are generally more modest in size and price.

MSA (metropolitan statistical area). An urban area containing multiple political jurisdictions grouped together for the purpose of tabulating statistics by the U.S. Census Bureau.

Multifamily housing. Structures that contain four or more units.

Neighborhood. A segment of a city or town with common features that distinguish it from adjoining areas.

Net absorption. The change in square feet of occupied inventory over a specified period of time, including the addition or deletion of building stock during that period of time.

Net leasable area. The floor area of a commercial building leased to a tenant that is usable, typically not including corridors, restrooms, and utility space.

Appendix B: Glossary

NOI (net operating income). Cash flow from rental income on a property after operating expenses are deducted from gross income.

Operating budget. A budget, usually prepared a year in advance, listing projected costs of maintenance and repair for a building.

Option. The right given by the owner of property (the optionor) to another (the optionee) to purchase or lease the property at a specific price within a set time.

Pass-through. Lease provision whereby certain costs flow through directly to the tenant rather than to the owner (for example, property tax increases on a long-term lease).

Penetration rate. Percentage of total demand within a targeted market segment that a project and its competitors can attract. Also called capture rate.

Permanent loan. A long-term loan on real estate that is used to finance a completed development (as opposed to a construction loan).

Present value. The current value of an income-producing asset, estimated by discounting all expected future cash flows over the holding period.

Pro forma. A financial statement that projects gross income, operating expenses, and net operating income for a future period based on a set of specific assumptions.

Property life cycle. The three periods in the life of a building—the development period, the stabilization period, and the decline period.

Property manager. An individual or firm responsible for the operation of improved real estate. Management functions include leasing and maintenance supervision.

Psychographics. Information on lifestyles, interests, hobbies, consumer preferences, and shopping habits of households residing in a market area; used in retail tenanting and housing design.

Purchasing power. The financial means that people possess to purchase durable and nondurable goods.

Rack rate. In hotels, the published or highest room rate charged.

Raw land. Undeveloped land, without any infrastructure or other improvements.

Real estate investment trust (REIT). An ownership entity that provides limited liability, no tax on the entity, and liquidity. Ownership is evidenced by shares of beneficial interest similar to shares of common stock.

Realtor. A member of the National Association of Realtors®.

Redevelopment. The redesign, rehabilitation, or demolition and rebuilding of existing properties.

Rentable area. The actual square footage for which a commercial or industrial tenant will pay rent.

Rent control. Limitations imposed by state or local authorities on the amount of rent a landlord can charge in certain jurisdictions.

RevPAR. A hotel's revenue per available room, calculated by multiplying annual occupancy by average room rate.

Risk. The possibility that returns on an investment or loan will not be as high as expected.

Segmentation. The classification of a population group into segments for the purpose of identifying marketing subgroups.

Shoppers' goods. Items purchased after some degree of deliberation or shopping around. Generally differentiated through brand identification, the retailer's image, or the ambience of the shopping area. Such purchases are made less often, and the product is typically more durable and expensive than convenience goods.

Shopping center. Integrated and self-contained shopping area under common management, usually in the suburbs.

Single-family housing. A dwelling unit, either attached or detached, designed for use by one household and with direct access to a street; it does not share heating or other essential building facilities with any other dwelling.

Stabilization. The point when a new property reaches its target occupancy level.

Subdivision. Division of a parcel of land into building lots. Can also include streets, parks, schools, utilities, and other public facilities.

Subject property. The site and/or building being analyzed or appraised.

Submarket. A geographic area surrounding a site that will provide a substantial portion of the customers for a real estate project.

Tenant. One who rents from another.

Tenant allowance. A cash payment made by the developer to a tenant (usually on income property) to enable the tenant, rather than the developer, to complete the interior work on the leased premises.

Tenant improvements. Improvements made to the property at the tenant's expense.

Tenant mix. The combination of various types of tenants in a leased building.

Title. Evidence of ownership of real property to indicate a person's right to possess, use, and dispose of property.

Top-down approach. An approach to market analysis that is based on using aggregated data first.

Townhouse. Single-family attached residence separate from another by party walls, usually on a narrow lot with small front- and backyards. Also called a rowhouse.

Trade area. Geographic area from which a retail facility consistently draws most of its customers. Also called market area.

Warehouse. A building that is used for the storage of goods or merchandise; can be occupied by the owner or leased to one or more tenants. Increasingly, warehouse buildings are used for order fulfillment and/or repackaging.

Zoning. Classification and regulation of land by local governments according to use categories (zones); often includes density designations as well.

Index

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