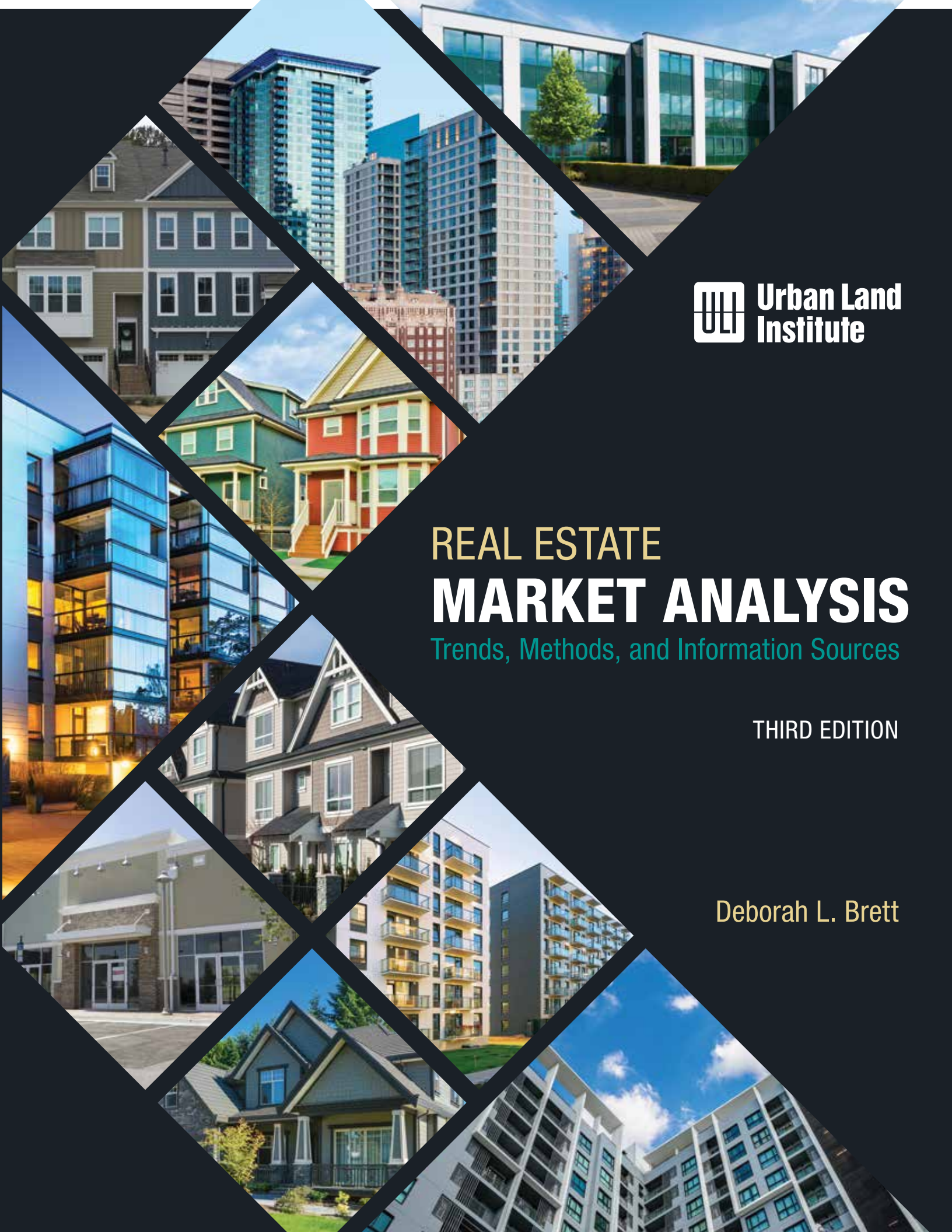

Urban Land Institute

REAL ESTATE MARKET ANALYSIS

Trends, Methods, and Information Sources

THIRD EDITION

Deborah L. Brett

ABOUT THE URBAN LAND INSTITUTE

The Urban Land Institute is a global, member-driven organization comprising more than 44,000 real estate and urban development professionals dedicated to advancing the Institute's mission of providing leadership in the responsible use of land and in creating and sustaining thriving communities worldwide.

ULI's interdisciplinary membership represents all aspects of the industry, including developers, property owners, investors, architects, urban planners, public officials, real estate brokers, appraisers, attorneys, engineers, financiers, and academics. Established in 1936, the Institute has a presence in the Americas, Europe, and Asia Pacific regions, with members in 81 countries.

The extraordinary impact that ULI makes on land use decision-making is based on its members sharing expertise on a variety of factors affecting the built environment, including urbanization, demographic and population changes, new economic drivers, technology advancements, and environmental concerns.

Peer-to-peer learning is achieved through the knowledge shared by members at thousands of convenings each year that reinforce ULI's position as a global authority on land use and real estate. In 2018 alone, more than 2,200 events were held in about 330 cities around the world.

Drawing on the work of its members, the Institute recognizes and shares best practices in urban design and development for the benefit of communities around the globe.

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Urban Land Institute
2001 L Street, NW, Suite 200
Washington, DC 20036-4948

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Primary Author

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

Reviewers and Contributors

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

Tony Biddle
Principal
Biddle Hotel Consulting
Philadelphia, Pennsylvania

Jon B. DeVries
Founding Director
Marshall Bennett Institute of Real Estate
Roosevelt University
Vice President, Research
Lambda Alpha Foundation
Chicago, Illinois

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

M. Leanne Lachman
ULI Foundation Governor
Executive in Residence
Columbia Business School
New York, New York

Stephen H. O'Connor
Associate Professor of Practice in Real Estate
Freeman College of Management
Bucknell University
Lewisburg, Pennsylvania

Project Staff

James Mulligan
Managing Editor

Publications Professionals LLC Editorial Team
Manuscript Editors

Brandon Weil
Art Director

Amy Elfenbaum, Arc Group Ltd
Book Design and Layout

Craig Chapman
Senior Director, Publishing Operations

ABOUT THE AUTHOR

Deborah Brett, AICP

Deborah L. Brett is a real estate and planning consultant to a wide range of private and public organizations for which she provides project-related market studies, consumer surveys, and trend analysis. Areas of specialization include demographic and economic analysis, survey research, and project planning for commercial and residential developments, including mixed-use plans, commercial revitalization, market-rate and affordable housing, and transit-oriented development.

In 1993, Brett formed Deborah L. Brett & Associates, an independent consulting practice. She previously was 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, housing analyses, and retail and office market studies 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. With Adrienne Schmitz, she wrote the first and second editions of *Real Estate Market Analysis* and was 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.

With M. Leanne Lachman, she cowrote two editions of *Global Demographics: Shaping Real Estate's Future* in 2008 and 2009. Also with Lachman, Brett conducted two national surveys of millennials' shopping habits and housing preferences that were published by ULI as monographs in 2013 and 2015, respectively. For ULI Washington, they cowrote two surveys of millennials' housing circumstances and satisfaction with living in the District of Columbia and its close-in suburbs; the surveys were published in 2015 and 2018.

Brett is a member of the American Institute of Certified Planners (AICP) and Lambda Alpha, the real estate and land economics honorary society. She taught online classes in residential and retail market analysis for Rutgers University's Bloustein School of Planning and Public Policy.

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This effort would not have been successful without the efforts of ULI senior editor Jim Mulligan, Barbara Hart and the editorial team at Publications Professionals LLC, ULI art director Brandon Weil, and designer Amy Elfenbaum. They substantially improved both the text and the visual appeal of the book.

PREFACE

Like the first two editions, this third edition of *Real Estate Market Analysis* was conceived as a practical guide for analyzing the market potential of real estate development and property acquisitions. Other textbooks on this topic have emphasized economic theory and mathematical formulas, but most practitioners combine data analysis with their understanding of the subjective aspects of real estate. This book emphasizes the importance of fieldwork and hands-on experience: seeing the subject property and its competition, talking to brokers and property managers, and understanding the needs and preferences of tenants and buyers in today's economy. It also provides guidance about data sources and their limitations, as well as ways to present data to support market conclusions.

This book does not focus on aspects of development finance—sources of equity and debt capital, loan terms, and expected rates of return—that are critical to project feasibility. Nor does it closely examine the various financial or tax incentives available from government agencies to encourage commercial and industrial development or affordable housing construction. For all but the smallest deals, multilayered financing has become the norm. The availability of equity capital and the terms that can be obtained for construction loans or permanent mortgages are influenced by results of market studies, which is why market research is so important.

This book is organized around real estate product types: the first three chapters introduce that topic, discuss the basic approaches, and instruct readers on where to find and how to present or interpret data (with an emphasis on employment information). Chapter 4 highlights demographic information needed to understand demand; discusses residential product types (both for sale and rental); and introduces niche developments that target students, seniors, and low-income households. Chapter 5 covers retail development, where market changes have been most dramatic since the second edition was published.

Chapter 6 covers office markets, including growth in shared office spaces (typically referred to as "coworking") as a growing source of tenancy, especially in urban centers. Chapter 7 presents an expanded discussion of industrial real estate as it reflects on how the growing importance of e-commerce and omni-channel retailing affects the market for warehouse or distribution space. It also notes the concentration of industrial development in major port and railroad intermodal centers. Chapter 8 provides information about hotels and other short-term lodging options. Chapter 9 explains mixed-use projects and what is needed for them to succeed. An appendix includes a glossary and a webliography.

Throughout the book, considerable attention is given to providing information about data that are available from both public and private-sector sources. Note, however, that new information sources (and providers) are always emerging, while established ones may merge or change, with their products evolving over time. With greater use of "big data" to guide real estate investment decisions, competition among information providers is heating up, and fewer supply-side sources are available to market analysts without paid subscriptions or one-time fees.

Where possible, we have provided examples of information that can be obtained free. Those examples come from publicly available reports that are commissioned by government agencies or provided on commercial brokerage websites (where quality data and analytic reports can help persuade property owners or tenants to use the brokerage firms' sales, leasing, financing, or property management services). The examples are not intended to suggest the full range of market information that can be obtained from private providers whose primary business is selling research services. Also, this book does not indicate prices for statistics obtained from private vendors because availability, geographic coverage, and costs change over time.

This book is intended for real estate, planning, architecture, and business students. It is also a useful reference for individuals who are starting a career with real estate investment, development, or property management companies, as well as related public sector agencies. It will also be helpful for experienced professionals who are shifting to different disciplines within the real estate development field and the public sector or for those who just want to gain an understanding of real estate market analysis methods and information sources.

CONTENTS

ABBREVIATIONS AND ACRONYMS

3PL	third-party logistics company
AAA	American Automobile Association
AARP	formerly known as American Association of Retired Persons
ACS	American Community Survey
ADR	average daily room rate
AGI	adjusted gross income
AHS	American Housing Survey
AMI	area's median income
APA	American Planning Association
ARDA	American Resort Development Association
ASHA	American Seniors Housing Association
B&B	bed-and-breakfast
BEA	Bureau of Economic Analysis
BEBR	Bureau of Economic and Business Research
BLS	Bureau of Labor Statistics
BOPUS	buy online, pick up in store
CAM	common area maintenance
CBD	central business district
CBP	County Business Patterns
CBSA	core-based statistical area
CCRC	continuing care retirement community
CES	Current Employment Statistics
CEX	Consumer Expenditure Survey
CMD	Construction Market Data (firm)
CPS	Current Population Survey
CRE	Counselors of Real Estate
FAR	floor/area ratio
FHA	Federal Housing Administration
FHFA	Federal Housing Finance Agency
FMR	Fair-Market Rents (HUD)
GAFO	general merchandise, apparel and accessories, furniture and home furnishings, and other goods
GIS	geographic information system
GLA	gross leasable area
HUD	U.S. Department of Housing and Urban Development
HVAC	heating, ventilation, and air conditioning
ICSC	International Council of Shopping Centers
IRS	Internal Revenue Service
JLL	Jones Lang LaSalle
LAUS	Local Area Unemployment Statistics
LED	Local Employment Dynamics
LEED	Leadership in Energy and Environmental Design
LEHD	Longitudinal Employer-Household Dynamics
LIHTC	low-income housing tax credits
LMA	labor market area
LODES	LEHD Origin Destination Employment Statistics
LQ	location quotient
MHI	Manufactured Housing Institute
MPC	master-planned community
MSA	metropolitan statistical area
NAA	National Apartment Association
NAHB	National Association of Home Builders
NAICS	North American Industrial Classification System
NAIOP	NAIOP, the Commercial Real Estate Development Association (formerly National Association of Industrial and Office Parks)
NAR	National Association of Realtors
NCHMA	National Council of Housing Market Analysts
NIC	National Investment Center for Seniors Housing & Care
NIMBY	not in my backyard
NLIHC	National Low Income Housing Coalition
NMHC	National Multifamily Housing Council
OM	offering memorandum
PPS	Project for Public Spaces
PUMS	Public Use Microdata Sample
QCEW	Quarterly Census of Employment and Wages
R&D	research and development
REIT	real estate investment trust
RevPAR	revenue per available room
RevPOR	revenue per occupied room
SMERF	social, military, educational, religious, and fraternal
SNAP	Supplemental Nutrition Assistance Program
STEM	science, technology, engineering, and math
TIF	tax increment financing
TOD	transit-oriented development
ULI	Urban Land Institute
USDA	U.S. Department of Agriculture
VA	U.S. Department of Veterans Affairs
Vrbo	vacation rental by owner
ZBP	Zip Codes Business Patterns

REAL ESTATE

MARKET ANALYSIS

Trends, Methods, and Information Sources

CHAPTER 1

CHAPTER 1

UNDERSTANDING REAL ESTATE MARKET ANALYSIS

Real estate market analysis provides guidance for the many decision-makers—in both the private and public sectors—who are involved in real estate development. It is an ongoing process that conveys 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 from a variety of sources with nuanced interpretation of the data based on real-world experience and on-the-ground observations. Although market studies are filled with data, interpreting the data takes experience, conversations with knowledgeable local professionals, and fieldwork. 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, a county, a group of zip codes, suburbs, or city neighborhoods); demographic profiles (millennials, empty nesters, seniors); and product types (off-price stores, big-box warehouses, upscale hotels, class A office space). Economists refer to both buyers and sellers when describing markets in terms of supply and demand, while marketing professionals consider sellers to be the client and buyers to be the market.

In real estate, *product* refers to property type (for example, apartment buildings, offices, warehouses), which is further classified by locational attributes, size or layout, quality, design features, project amenities, services, and prices or rents. Hotels are subdivided into convention and conference properties, full-service or limited-service establishments, and resort facilities oriented to tourists. Retail projects can 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 warehouses with 36-foot-high ceilings; "last mile" distribution facilities serving e-commerce; research laboratories; and modest low-rise "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. Most types of real estate can be customized to some extent to meet the needs and wants of the buyer or tenant. For-sale housing offers numerous options, including upgraded appliance packages, a choice of exterior facades, bonus rooms for additional space, and decor (flooring, cabinetry, countertops).

Hotels offer rooms with different bed configurations and spacious suites. Office buildings typically offer a tenant improvement allowance to a company that is leasing new space or renovating its existing space as an incentive to remain in place; tenants may opt to spend more. Companies providing shared workspaces offer desks, private offices, or group project space with flexible arrangements by the day, week, or month.

A mid-rise apartment building with ground-floor shops at the Domain II in Austin, Texas. *(CBRE Austin office)*

Neotraditional homes on small lots in a suburban town center. *(Deborah L. Brett & Associates)*

Most rental property types offer standard tenant services (building management, maintenance of common areas, security, janitorial service). In today's marketplace—where up-to-date digital connections and high-tech capabilities are vital—high-speed internet, wi-fi, cable television, streaming video connections, and sophisticated security systems are required, not optional. Such features are not just for luxury properties. Enclosed shopping malls, town centers, and outlet malls typically provide joint marketing and promotional services for all the tenants, with the cost typically passed through on a pro rata basis. Office buildings, apartment complexes, and hotels offer an array of concierge services, exercise facilities, meeting and event space, and social activities. Housing for seniors might offer optional meals, maid service, and personal care on an as-needed basis, along with a variety of group activities. Hotels catering to business travelers often include shops, restaurants, and bars. Their fitness centers are more spacious and provide more equipment than offered 10 years ago, or a hotel may provide complimentary passes for its guests at a nearby gym. Depending on distance, hotels often provide airport shuttle service. Guests can enjoy free breakfast buffets—a time saver for business travelers and a stress saver for families with children. Some of those services provide additional income to management; others are covered by room revenue but are needed to be competitive. Developers must consider all of those "extras" when they evaluate 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 forecasts sales, rents, vacancies, and absorption, further qualitative insights are increasingly important. For example, a housing market analyst looking at a proposed condominium building needs to know what design features appeal to homebuyers in certain communities. Surveys, psychographic research, and focus groups are useful tools in doing customer research.

A strong overall market does not necessarily equate to a good opportunity for development. Neither does a weak market mean that a good idea is not feasible. 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 slow-growth market. Moreover, not all demand is driven by growth; many opportunities exist to replace obsolete properties—those buildings that are deteriorated, are poorly located, or are no longer meeting 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 execution 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 a large percentage of residents in adjacent neighborhoods will patronize). Location influences the target market. 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 (although a home located in a good school district will have better resale prospects, all other things being equal).

Analyzing competition helps a developer determine how to set prices or rents. Homebuyers will pay more for a home if it offers more attractive or up-to-date features or styling than is found in 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. It should be noted, however, that consumer preferences are always changing. Trendy features in today's market may quickly seem dated or unnecessary. 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 either 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 (as discussed in chapter 9). 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 city or county who want to live in a vibrant neighborhood or closer to their jobs. However, the main source of patronage for the retail space could 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 will help set the context for project-level decision-making. For hotels and other lodging, competitive supply will consist of nearby properties with comparable services, amenities, and price points, but demand is not estimated on the basis of local population demographics.

A narrowly focused market study will yield the most useful results. For example, providing background information on performance for all hotels in a region is a good starting point, but more useful data come from focusing on directly competitive properties in the same price and amenity categories in nearby locations.

Most real estate market analyses examine both the market potential and the marketability, or competitiveness, of the proposed project. The analysis of market potential examines aggregate data about 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 that has not been successful. Such studies accomplish the following:

- *Provide input for preliminary project planning.* Developers will often commission a market overview when they are deciding whether to exercise an option on a parcel or to proceed with the initial stages of land planning and engineering for a project. This type of market study is often a memo or brief 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 are possible given current market conditions. The developer can then decide whether it makes sense to hire a site planner to examine zoning requirements, how many units or buildings the site could accommodate, what traffic issues to consider, and whether detailed environmental studies will be necessary.
- *Generate inputs for financial feasibility analysis.* The results of the market analysis lead to assumptions that developers use to analyze 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 the absorption and vacancy rate forecasts are important in determining projected cash flows and returns on investment. Developers can also run alternative scenarios to predict the effect on the bottom line if market conditions change.
- *Demonstrate the potential for a new product or an unproven location.* As demographics of an area change, existing property types may not meet current need. For example, a more upscale retail center may be appropriate for an

evolving neighborhood even though it is untested in that marketplace. Sometimes a developer can create a market for a new product type. A new rental apartment community can quickly render existing apartments obsolete in the minds of renters, thus creating a market for more "on-trend" units. Using environmentally friendly design, materials, and equipment can enhance marketability, although not all tenants or buyers are willing to pay the additional short-term costs associated with ecofriendly features. The notion of what constitutes the most desirable hotel accommodations, office floor plans, retail locations, or apartment features can change seemingly overnight, thus 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, thereby offering opportunities to savvy, pioneering developers.

- *Attract equity investors, debt financing, or government financial assistance.* 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, or 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. Staff members or consultants may conduct those studies.
- *Create a better, more marketable product.* Market studies can help fine-tune the product by revealing the characteristics and demands of consumers or commercial space users. For large projects, the market analyst should be an active member of the developer's pre-construction team, which will also include land planners, civil and environmental engineers, architects, traffic consultants, financial analysts, public relations specialists, and attorneys. Give-and-take among the development professionals is likely to result in a more successful project.
- *Build community support for private development.* Few projects can proceed without some type of approval or assistance from a government agency, be it a zoning variance, a modification of site planning standards or permitted uses, or help in assembling land for a redevelopment project. When evaluating development proposals, local staff members, elected officials, and consultants usually focus on density, utility capacity, parking, and traffic. However, developers who are requesting public subsidy or tax increment financing (TIF) for a project may be required to submit a market study and financial projections that demonstrate the need for government funding and to conclude that the development has the potential to succeed.

A rooftop bar in New York City. *(Gregorio Koji/Shutterstock.com)*

- *Provide input for public-sector housing or economic development strategies.* Government agencies need to 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 while 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 those agencies will issue revenue bonds or allocate tax credits for affordable housing or commercial projects.

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 metropolitan 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. In most cases, an appraiser will create a formal estimate of value. Either the market analyst or the land planner will investigate the development climate of the jurisdiction while looking for answers to the following questions:

- Is the proposed project likely to meet with public acceptance?
- Is the proposed development compatible with existing zoning for the site?
- If not, how likely is it that variances or rezoning will be approved in a timely manner?
- Are utilities readily available? For a residential project, which schools would additional children attend, and do the schools have the capacity to serve them?
- What public improvements are scheduled or planned for the area that would enhance the project's appeal?
- Are there difficulties that might slow or hinder development? Although the market analyst will not be qualified to deal with environmental and engineering issues, an analyst may identify potential problems that need further exploration.

Recognizing that entitlement authorities represent the citizens who must be sold on a project, experienced developers have learned that it is useful to address local concerns from the onset. A series of negotiations transpire as developers adjust their projects to respond to local issues. It is far better to identify and address community concerns early in the project approval process than to face a concerned (or hostile) audience at 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, developers and owners must continue to monitor market conditions throughout the project design, approval, construction, sales or leasing, and management stages. Once the project has been completed for a few years, market analysts might be asked to evaluate the project's performance, comparing its occupancy, rent levels, and other metrics with predevelopment forecasts. It is very common for market analysts to be consulted for repositioning strategies after a project is up and running if the developer sees that absorption is not meeting projections. Property managers continually monitor their competitors, either through direct contact or by using data from third-party providers, checking to see how occupancy has changed, determining whether rents have moved up or down, and using new information to reposition the project as conditions change.

Who Uses Market Analysis?

Developers cannot rely solely on instinct or even experience to decide what to build or to assure prospective investors or lenders that a project will succeed. A rigorous market study early in the process stimulates development ideas, improves initial concepts, and helps control risk. However, developers are not the only players who benefit from market analysis. Research benefits not only the parties with a financial stake in the project but also the community whose well-being the proposed project will affect.

Developers

Real estate developers are probably the most frequent users of market studies, especially if they will continue to own or manage their buildings after construction is completed. Although the need for market analysis is most obvious during the predevelopment process, reports are often updated when a developer applies 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 consider alternative locations.
- Identify a product or mix of products that best meets the demands of the market.
- Understand existing and potential competition, and then evaluate their advantages and disadvantages when compared with the proposed project.
- Identify the nature and depth of demand.
- Provide guidance for land planners and architects and offer input for initial design concepts and later refinements.
- Suggest project pricing, sizing, and phasing.

The Wynwood Walls art installation in Miami has stimulated neighborhood reinvestment. *(Jenner Furst)*

- Generate key inputs for cash flow analysis in support of loan applications or equity syndication.
- Persuade elected officials and government agency staff members to provide entitlements, financial incentives, or utility services for a proposed development.
- Devise a marketing plan by identifying market niches or prospective buyers or renters and then suggest how to reach them.
- 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 staff members 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 focus on a specific neighborhood, industrial area, local business district, or proposed development site. Examples of areawide studies are the "Comprehensive Housing Market Analysis" 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 hire the consultant, with the developer paying the fee. Or the developer will hire a consultant who provides a scope of services that the government agency or department has approved.

Public officials use market studies to help with the following:

- 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 effect 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 TIF districts.
- Identify likely 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 when negotiating impact fees.

- Justify using incentives to stimulate a neglected market niche, such as artists' housing.
- Provide employers with information about housing stock, prices, rents, and vacancies for use when recruiting personnel.
- Support infrastructure investment in facilities that will draw tourists and other visitors.

Investors and Lenders

Market studies provide input for cash flow analysis, which demonstrates to lenders if a project's income is likely to cover its debt service and tells investors what returns they could expect on their investments. A lender will look at the developer's market study to decide whether to consider a loan application, but the lender may ultimately commission its own 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, costly renovation, or adaptive use 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 estimated by the developer's consultant or staff members.
- 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.
- 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 developers buy or sell a piece of vacant land or when they acquire or dispose 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 owners identify an appropriate selling price for a completed project. For a vacant tract, land value can be determined by having the purchaser use market study results to model total project value upon completion and then by assigning a share of the value to the land itself.

If a property's performance is not meeting expectations, a market study can suggest how upgrading or repositioning could improve occupancy or rent levels. Such a market study might be initiated by the owner's property or asset manager or by investors.

Tenants or Buyers

Commercial tenants, such as office-based businesses, retail stores, or warehouse users, may conduct their own market research when they consider signing or extending a lease. Large space users 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 will examine the suitability of buildings that they are considering 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 will consult online sources to determine the asking rents at nearby competitive projects.

Figure 1-1 depicts the many participants in the real estate industry who use market analyses and the reasons they do.

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, by research departments of brokerage firms, or by commercial real estate appraisal firms. Large developers often have a team of in-house analysts. Contact information for market analysts can be found in the membership rosters of organizations such as the Urban Land Institute (ULI), Lambda Alpha International (the land economics honorary society), Counselors of Real Estate (CRE), and American Planning Association (APA). Other professional organizations represent analysts who cover niche markets. For example, the National Council of Housing Market Analysts (NCHMA) publishes a directory of market study providers, which is available on its website. Retail market specialists are likely to be members of the International Council of Shopping Centers (ICSC). Public accounting firms also have active real estate practices; their staff members include market analysts who specialize in hotels, resort and timeshare communities, affordable housing, and other real estate investments.

Larger market research firms often have multiple offices, and their analysts work in metropolitan areas throughout the United States and worldwide. Many firms concentrate their efforts in specific cities or regions. Specializing in only one or two land uses—housing or retail, office and industrial space, or hotels—is common because it allows staff members to develop in-depth knowledge and data sources that reflect their specialties.

Real estate brokerages also prepare summary 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 about

market performance and future construction announcements. Brokerage reports tend to focus more on supply than on demand, but good reports will include an economic overview that covers trends in key indicators like employment or household growth. Major firms such as CBRE Group (formerly CB Richard Ellis), Colliers International, Cushman & Wakefield, JLL (formerly Jones Lang LaSalle), Marcus & Millichap, NAI Global, and Newmark Knight Frank publish data on their websites. Some data are available only to clients, but all such firms regularly release information and insights about market conditions for public use. Those data either are on their global websites or are available through local affiliates. When a brokerage represents a property that is being offered for sale, it often will prepare a market overview in addition to providing information and photographs for the specific property; thus, an offering memorandum (OM) for a sizable project or portfolio will be quite detailed.

The past two decades have seen dramatic growth in private subscription data services that provide overviews of market conditions for one or more land uses. Their reports cover broad trends and, like broker reports, emphasize the supply side. They provide information about 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-oriented, luxury, budget, etc.). Some private data vendors focus on single-family housing or senior housing only. Vendors then further segment the inventory into geographic submarkets, with information about rent or price trends, occupancy, absorption, and construction activity. Unlike brokerage reports, some private data services permit customized geographies, which will allow the analyst to narrow in on the most competitive properties. In addition, private data vendors offer a wealth of historical information that may not be included in a publicly available brokerage report. This book's later chapters and annotated webliography in the appendix contain more information about data sources.

Trade associations also compile data that provide important insights into market conditions for the nation and larger metropolitan areas. For example, the website of the National Association of Realtors (NAR) provides regular updates on the median sales prices of homes in metropolitan areas. The National Association of Home Builders (NAHB) has resources on its website that focus on new home construction and affordability; some data are available free of charge, while other information requires a fee. Local

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/expansion decisions								X	
Devising/revising real estate investment strategies	X	X							
Product planning, design, pricing, phasing	X								
Obtaining zoning or other government approvals	X					X			
Input/assumptions for cash flow analysis	X	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		
In ongoing asset management		X						X	

Source: Deborah L. Brett & Associates.

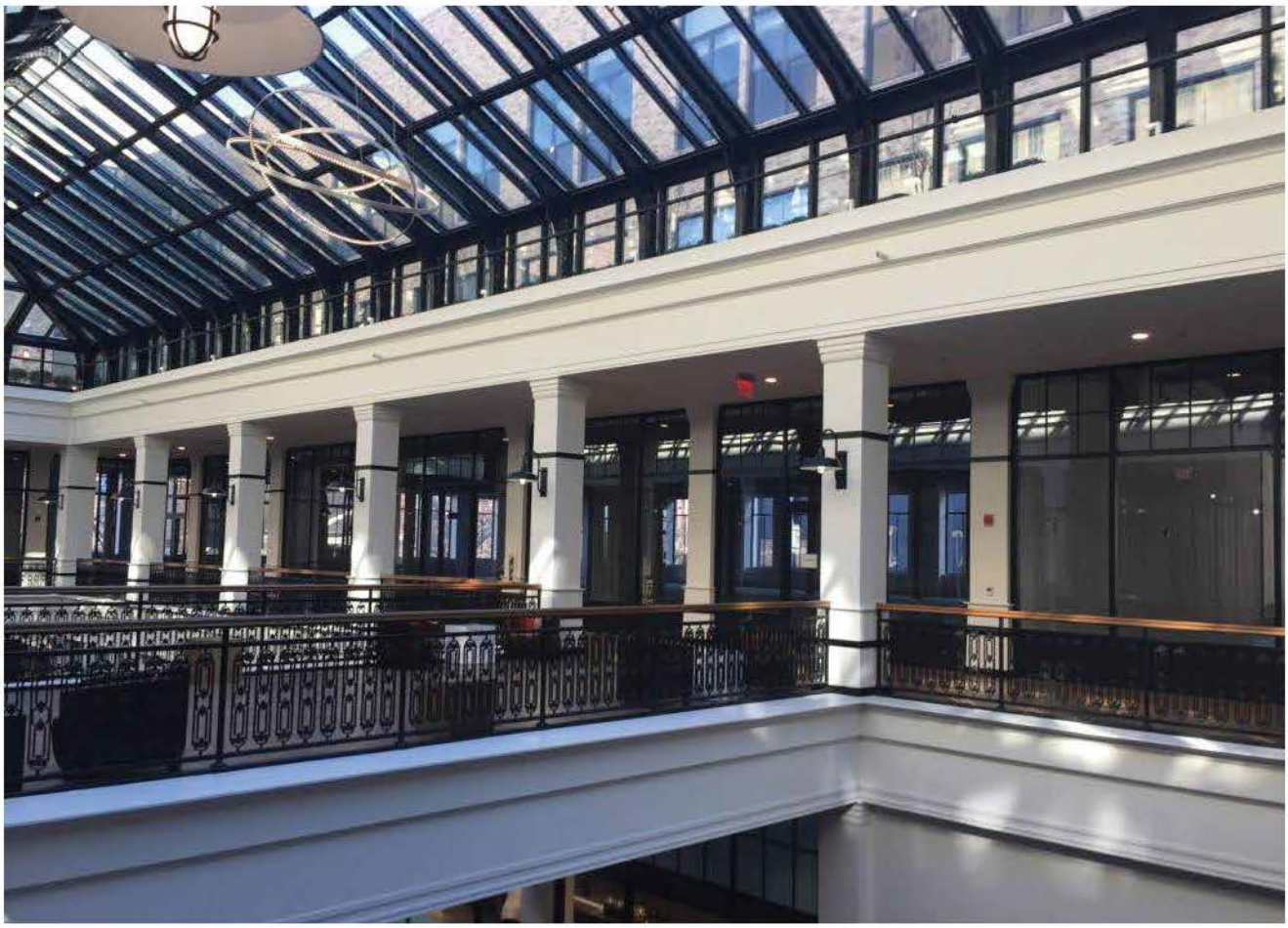
NAHB affiliates may provide more detailed data for smaller geographic areas, which allows the market analyst to compare price levels and sales activity in different parts of a state or in specific counties.[1] Local appraisers who specialize in residential development or resales may also have this information (available for a fee) in the counties where they work.

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 the services of other professionals—an architect, land planner, and engineer, at a minimum—to get plans approved, but they see no need to pay for an outside market study unless a lender or a government agency asks them to do so. 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 conduct a market study must take into account a number of factors when budgeting for the work:

- *Number of land uses to be studied.* The volume of data that a consultant must collect and analyze 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 about 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 comprising office space, a hotel, and condominiums will require more detailed analysis of employment data and sources of demand for hotel rooms 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 (as discussed in chapter 9) than are single-use projects. In some cases, more than one consultant will be necessary, and the scope of services for each expert analyst must be crafted carefully to avoid duplication of effort.



Adaptive use of the former Hahne & Company department store in Newark, New Jersey. The building provides apartments, retail space, a chef-branded casual restaurant, and arts collaboration space. *(Deborah L. Brett & Associates)*

- *Level of detail required.* 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 must include a careful exposition of methodology as well as detailed information about competitors and demand segments.
- *Using a market analyst with experience and credentials.* The level of experience that staff members need for a particular study will affect its cost. If senior consultants are needed, the study will obviously be more expensive than if it had been prepared by junior staff members. If relatively inexperienced personnel are doing field research or report writing in order to minimize fees, senior personnel who are familiar with all aspects of the work program should supervise them and review their 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 engaging a nationally known consultant or a person whose judgment they trust, even if doing so increases the fee.
- *Buying data.* Purchasing demographic data or supply inventories from private vendors can save time, but it can cost hundreds or even thousands of dollars, depending on the scope of the market study. Reports requiring high-quality photography, graphs, or mapping may also require outside assistance.
- *Hiring subcontractors.* If a consumer survey or focus groups are necessary for the market study, the consultant will probably need to find a specialist. Increasingly, consumer surveys are conducted online, but they must be structured by an experienced firm that can design a workable questionnaire, find the target audience, and tabulate responses. (See chapter 3 on the different types of consumer surveys.) Focus groups are still widely used, especially to get consumer reactions to proposed plans and designs. Such groups require experienced moderators who work with the client to structure the conversations, gauge reactions, and record comments.
- *Scheduling.* A developer or lender who asks a consultant to prepare a market study in a short time will often have to pay a premium; the consultant may need to bring in outside assistance to get the job done on time.

Summary

Market research is an investigation into needs and wants *(demand)* and into products *(supply)* that compete to satisfy those needs and wants. The availability of data has greatly improved over the years, but an experienced market analyst can and should ask questions about geographic coverage and breadth of building information. For example, industrial and office space statistics vary widely in what minimum building size they cover or whether the data include both single-tenant and multitenant occupancy. Reams of information must be synthesized using instinct born of experience, lest the analyst drown in the data and be unable to formulate conclusions. And nothing takes the place of old-fashioned shoe-leather fieldwork and driving the neighborhood for understanding the competition.

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

Book Outline

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 national and regional economic overviews and development product trends) and highly focused (for example, fine-tuning features for kitchens at an apartment complex or the truck docking and loading facilities in a warehouse).

Subsequent chapters explain how to perform market analysis. Chapter 2 outlines the content of a market study, from researching the background of a 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. Chapter 3 provides general guidance about explaining economic trends and analyzing demand and supply, with a focus on labor force and employment information as a starting point for evaluating the need for all types of properties. Chapters 4 through 9 describe how to tailor the process to each product type by explaining how market areas differ for each land use, what product-specific methods are used for analyzing supply and demand, what types of data are needed, and where to find information. Each chapter includes commentary about national trends and how-to advice about interpreting available data. The 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—applies to real estate anywhere in the world. Product characteristics, consumer preferences, location considerations, and data sources are unique to each country; in many places, information about current conditions is relatively limited. The techniques for analyzing supply and demand, however, are the same no matter where they are used.

Note

1. Professional associations and trade groups—such as the National Apartment Association; National Association of Homebuilders; National Association of Realtors; NAIOP, the Commercial Real Estate Development Association; and National Multifamily Housing Council—can be useful sources of data and perspective about development trends and market conditions. Other organizations cover specialized properties, such as manufactured housing/mobile homes, senior housing, affordable housing, office parks, and tourism. Information on these organizations can be found in chapters 4 through 8 and in the webliography.

CHAPTER 2

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 describes 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 create persuasive reports.

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 figures and sidebars throughout the book, as well as 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. This introduction demonstrates 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, the airport, and other regional draws).[1] 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, thus providing an opportunity to easily compare and contrast regional or metropolitan areawide 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 old, the analyst will need to provide more current estimates and projections. For a fee, private data vendors such as Claritas and Esri issue current-year estimates and five-year projections for a variety of demographic indicators. Their data are available by subscription (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 metropolitan, county, and municipal population estimates every two years). For metropolitan areas and larger places, the Census Bureau's American Community Survey (ACS) provides selected demographic and housing statistics annually. The scope of the ACS has expanded over the past decade.[2] However, the ACS does not cover small suburbs and rural counties annually, nor does the Census Bureau issue population projections at the metropolitan and local levels.[3] 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 job growth creates demand for real estate products. The data on employment should indicate how the number of jobs has grown over the preceding five to 10 years, with a discussion of industries that expanded or declined. A market study often includes a look at the characteristics of the area's largest employers. For hotel studies, the overview should discuss areawide trends in tourism, convention attendance, and business meeting bookings—data that are usually available from the convention and visitor bureaus in large cities or from state tourism agencies. Chapter 8 adds information about finding visitor data.

In addition to the federal government's Bureau of Labor Statistics (BLS), state labor departments are useful sources of information on employment by industry as well as trends in unemployment rates for metropolitan areas and counties. Analysts must look carefully at the data series when they create tables with historical information, because the BLS frequently benchmarks or revises the numbers. 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. Most federal and state labor information sources do not provide data for small areas (individual suburbs, zip codes, or census tracts). Usually, states have information for individual counties or multicounty labor market areas (LMAs). Some local statistics are available through the Census Bureau's interactive OnTheMap program.[4] It is important for market analysts to use a consistent data series when they track trends and to note exclusions or omissions. Chapter 3 provides more information on employment data, where to find them, and how to present them.

The regional or metropolitan overview should also include information on construction activity. For housing studies, the analyst should track building permit information for at least five years, preferably with separate tabulations for single-family and multifamily activity. Because the Census Bureau collects residential permit data from individual permit-issuing jurisdictions, it is possible to calculate the percentage of permits in a metropolitan area that are captured in a local market with multiple jurisdictions. Some state websites tabulate the number of units for which permits were issued.

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. Local affiliates of large national commercial real estate brokerages will have this information; it may be available on the company's national website. Local brokers who track commercial and industrial construction activity can also be helpful. However, metro area data that are available on brokerage websites do not always provide the needed level of detail. Better information may be available from regional/local real estate professionals, government economic development staff members, and local business and real estate publications (online and in print).

Defining the Market Area

One of the initial challenges facing the market analyst is how best 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 most potential tenants or buyers will be drawn and another in which key competitors are located.

Preliminary studies may define a market or trade area using three-, five-, or 10-mile radius 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, barriers, or density into consideration. Ring data are relatively inexpensive to obtain from private vendors.

For a retail market study, simple trade area rings are useful for an initial review of a market's population size or expenditure potential, but they will not accurately portray a site's actual "draw." A precise trade area definition will not extend equally in all directions because it needs to 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; analysts must also consider data availability and the cost of information collection when they draw a market area.

More precise 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 typically assemble census information for city-defined neighborhoods. (As noted earlier, decennial census counts become dated over time, especially in neighborhoods experiencing rapid change.)

The analyst should recognize that zip codes often do not conform to municipal boundaries, nor do they necessarily reflect neighborhood residents' sense of "turf" or local traffic patterns. However, private data vendors have sophisticated geocoded software that permits creation of customized market or trade areas that the analyst can specify—perhaps a polygon, an area between arterial streets, or a corridor with multiple highway interchanges—that realistically reflect where local residents will shop or where office tenants will look for space. Once the market area is mapped, the analyst can request demographic data for that geographic area.

For commercial properties, competitive market areas are likely to cluster in downtowns, in master-planned office parks, or at suburban retail nodes along highways or major arterials. Industrial/warehouse competition may be found near ports, airports, or at interchanges where two or more interstate highways connect. Distance (miles and travel time) to customers or local distribution centers are the key factor for highway-oriented warehouse properties. For manufacturing, key factors could be availability of natural resources, skilled labor, or utility services. Rail connections may be a consideration, depending on the types of goods being produced. For all types of industrial properties, the availability of labor and accessibility for workers (including public transportation) are increasingly important.

Factors to Consider

Seven key factors affect the size and shape of a 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 proposed development. As a general

An office/warehouse building in a business park. *(Deborah L. Brett & Associates)*

rule, households will not want to cross a major barrier for everyday needs but will accept some inconvenience to reach a large shopping center. The absence of bridges across bodies of water can have a similar effect.

- *Traffic congestion.* Chronic traffic congestion can limit the size of trade areas and discourage potential homebuyers, apartment renters, or office tenants from looking at an otherwise attractive location. 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 will 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 on the basis of walking distance—usually no more than a half mile. In rural areas where shopping choices are limited, customers will travel farther to shop for everyday necessities.
- *Political boundaries between cities and suburbs or between school districts.* Residential properties in communities with low crime rates and good schools will draw from a large trade area, all other things being equal. 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.* Sizable projects will draw from large areas; smaller projects from small ones. A mixed-use development can cover multiple trade areas (for example, housing, offices, entertainment, and retail space) and thus draw potential buyers or tenants from different parts of the metropolitan region.

Primary and Secondary Markets or Trade Areas

More sophisticated residential or retail market studies will define both a primary market area, from which 60 to 80 percent of residential or retail patronage will be captured, and a secondary market area, 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 upscale super-regional shopping centers or outlet malls. (See chapter 5 for definitions of different types of retail centers and 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 homebuyers from nearby municipalities, but there are examples of developments where a majority of residents moved from quite a distance to be closer to family members or friends.

Hotel, resort, and second-home properties will target consumers who live well beyond a metropolitan area.

Demand is less dependent on local demographics than on transportation access (easy interstate highway or air connections), conditions in the general economy (growth in tourism, increasing affluence), interest in natural and built features (ski slopes, beaches, golf courses, hiking trails), and price points of the proposed development. The nearest competition may be located outside the immediate area or even out of state.

Competitive Clusters

As discussed earlier, 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 developers evaluate a prospective location for such commercial buildings, ease of access—to a 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 commercial and industrial 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, having fewer residential neighbors is preferable, thereby avoiding conflicts over truck traffic, noise, odors, or other factors that could delay project approvals.

As already discussed, a metropolitan area will typically encompass 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 analyst examines the marketability of a proposed new office or industrial development (or the economic potential of an existing property that is being considered for acquisition) 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 a site and its environs without visiting the property. Maps can show the property's size and shape, and Google Earth can show aerial views of its surroundings, but visiting the site itself gives an analyst a sense of its topography, natural features, and views. The presence of mature trees on the site can be an asset for selling single-family homes but may be a cost concern for projects that require clearing land. Attractive views (mountains, lakes, rivers, skylines, historic features) can bring premium prices, but building on a parcel with steep slopes will increase the cost of 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 reveal potential visibility issues or problems with access from nearby roads. The field visit offers the opportunity to meet with local planners to learn about the existing zoning, whether any

Food hall vendors and customers in downtown Chicago. *(Valerie S. Kretchmer Associates Inc.)*

variances might be needed for the envisioned uses, and if future infrastructure improvements might affect the marketability of the site. Field interviews with government agencies can also yield important information about potentially competitive development projects in the area that are in the planning 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. It should briefly note the site's topography and vegetation, along with the presence of streams, ponds, or wetlands. The analyst should mention both positive and negative characteristics of the property or its location.

Site advantages might include location in a historic district (although architectural restrictions could impose development constraints), attractive views of the downtown skyline, or presence of mature trees that will remain after construction. Incompatible neighboring uses such as deteriorating nearby buildings; proximity to environmental hazards or landfills; and noise from highways, rail lines, or airports are negative characteristics—especially for residential development. The analyst should note access or visibility problems that could hamper marketability and therefore require corrective action. (The developer may have to pay for certain off-site infrastructure improvements.) If any changes are planned (such as a new commuter-rail station, highway construction, road widening, intersection improvements, or new traffic signals), the report should note when these improvements might be completed.

The analyst can assess certain site attributes as either positive or negative, depending on the proposed land use. 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 would not draw seniors to a retirement community but would attract shopping center developers and their tenants.

In addition to studying the site and its immediate environs, the analyst must consider factors such as community character and reputation. Low crime rates and the proximity to services that are necessary for daily living are also important for assessing a location's suitability for residential use. If new housing is targeted to young families, information about the reputation of the local school district, the availability of nearby daycare, and the location of community park and recreation programs should be part of the report. For office space, proximity to transit may be important for attracting tenants in a tight labor market. The presence of shops, restaurants, and entertainment in the area creates an identity that can lend prestige to an office location.

The analysis should discuss the property's zoning and permitted uses and should note whether any zoning changes or variances will be necessary before development begins. Knowing the allowable density—calculated as a function of floor/area ratio (FAR) for a commercial or industrial property and as units per acre for housing—is critical for determining project feasibility.

Proximity to Amenities

Nearby amenities can be key when a developer is selling a location to prospective tenants and buyers. Proximity is obviously important for a resort or second-home property that is intended to attract skiers, golfers, or boaters, but it is also important for conventional residential development. Homebuyers and renters want to walk, bike, or take only a short drive to shopping, recreation, schools, and entertainment facilities. Access to public transportation can make all the difference to potential residents in urban neighborhoods or mature suburbs. However, certain homebuyers still prefer remote, semirural locations where lots are larger or purchase prices are lower. Homebuilders assume that buyers in these areas will be comfortable with driving long distances to shop and with sending their children to school on buses. The market analyst must also determine whether bus pickup for students is even available. Some districts do not pick up students who live within a mile or two from school.

It is important for the analyst to drive around the area near the subject property while noting the location of amenities that buyers or tenants will consider essential. For example, for a residential development, the analyst should note the location of neighborhood stores, parks, schools, houses of worship, libraries, and health care services, as well as other basics in daily life. For an office building, convenient access to highway interchanges, rail stations, or express bus service is key. In downtown locations, nearby parking garages and lots should be identified. 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. Businesses whose staff must frequently travel out of town will require proximity to the airport. In contrast, a retail chain's regional warehouse/distribution facility must be within an overnight drive of dozens of stores, so a location at the intersection of north–south and east–west interstate highways could be advantageous. For other types of industrial properties, rail service and proximity to ports and cargo airports may be essential.

Demand Analysis

As indicated earlier, it is useful to compare demographic trends in the trade area with those in the larger region, metropolitan area, or county. However, local characteristics beyond total population and household estimates and projections should receive greater emphasis. Age characteristics are especially important when analyzing the market for senior housing or for apartments that cater to young adults. Household composition (families with children, empty nesters, and singles) should also be noted.

Class A apartments in southern New Jersey. All units have two bedrooms and two baths; some have a den and a one-car garage. *(Deborah L. Brett & Associates)*

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 those who have incomes sufficient to afford the rents or prices. Chapters 4 and 5 provide more insights into presenting this information.

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 using information from the BLS's Consumer Expenditure Survey, but this is a time-consuming task; it may be more efficient to purchase data from private vendors, as chapter 5 explains. Analysts should recognize, however, that the way Americans shop and where they make purchases have changed dramatically in the past decade. Omnichannel retailers generate both in-store and online sales, but government retail trade surveys do not always reflect this change in sufficient detail.

Demand calculations for retail centers located in downtowns or other business nodes, or in tourist destinations, must also identify the spending potential of office workers and the inflow from purchases by visitors to the market area. These calculations are difficult to complete, because purely local data sources are limited. 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.[5]

For office and industrial properties, demand analysis may be limited to an examination of employment trends, a review of recent job growth in the competitive submarket, and a look at changes in space absorption over time. It is important for the analyst to discuss how growth in employment translates into need for office space. Chapters 6 and 7 discuss approaches to office and industrial market demand analysis in greater detail.

Hotel demand is a function of projected growth in convention attendance, local business activity, and leisure visitor generators such as historic sites, outdoor recreation areas, beaches, amusement or theme parks, indoor water 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 restaurants, meeting-space rentals, and banquets. In addition to examining housing and other commercial uses, national data vendors track the number of occupied hotel rooms in local markets—a good indicator of changing demand parameters. Chapter 8 provides more detail on the unique features of hotel market analysis.

Supply Analysis

To understand the supply side of the equation, the analyst must look at existing and planned competition. Competitors can be identified through readily available (free or inexpensive) secondary sources—a directory of office properties or apartment listings in print or online—but these sources may not be comprehensive, current, or accurate. Using information from data vendors to provide up-to-date supply information has grown in popularity (and can save time), but the analyst must still field-check data about competitors by driving around the area and by talking to building managers. Most market analysts will tell property managers

or leasing agents that they are conducting research in the area, but others will "shop" competitive buildings while posing as a prospective buyer or tenant to see a model unit or to get information on vacancies. It is important to recognize that not all competitors will be cooperative about sharing such information.

Analysts use summary tables or individual project data sheets to show details about competitive properties in their reports, and they may also provide a brief narrative for each property. Either way, the supply analysis should also draw comparisons between conditions in the local market area and those 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 in the report should be provided for those projects in the local market area that are most comparable to the planned development. Data sheets and summary 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, if known.
- For residential properties, the number of models offered (by number of bedrooms and baths) and the size of each unit type; for business parks, the range of building sizes; for office space, the floor plate sizes.
- Project or building amenities (for example, green building features, concierge services, and ground-floor coffee shops in an office building; pool, jogging trail, and dog run in an apartment complex).
- In-unit amenities (tech features, balconies, fireplaces, and any above-standard appliances, flooring, cabinetry, countertops, or trim).
- Monthly rent (total and per square foot) for each unit size in an apartment property; annual rent per square foot for commercial and industrial space.
- Lease concessions offered (for example, months of free rent, above-standard tenant improvement allowances in office buildings).
- Utilities and services included in the rent; extra charges (for example, parking or exercise facility fees, 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.
- Absorption rates for recently built projects (see discussion of absorption later in this chapter).

The analyst must also investigate projects that are still in the pipeline and that may ultimately become the direct competitors for the proposed project. Of course, many details about these projects will not be available, but it is useful to provide as much information as possible—the size of the project, the market niche it is targeting, if it has received the necessary government approvals, if any anchor tenants have been signed, and when it is expected to open. Much of this information can be collected by calling or visiting the local jurisdiction's planning office. In a trade area with multiple jurisdictions, however, 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 they provide little insight other than the number of residential units or the approved square footage for commercial projects. It is possible that the most competitive developments (the ones most similar to proposed projects or existing buildings being studied for an investor or lender) 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; they 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 is likely to be. For the acquisition or refinancing of an existing building or complex, the report should spell out the key risk factors: Does the project face an overbuilt market? Is tenant turnover high? 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 and should use 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 a subject property's main features compare with those of its competition. These features will vary by product type; not all of the ones listed here will be essential in every analysis:

- Location (access, convenience, visibility, prestige);
- Unit sizes and mix by number of bedrooms and baths, plus lot sizes for single-family homes;
- Observed condition of buildings and grounds;
- 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;
- Ability to support current and future technologies; and
- Security.

Of course, competitive rents or prices are critical to all land uses. When an analyst looks at new construction,

it is important to compare asking rents in current dollars, even though a new building could take two or more years to complete.

Capture Rates and Penetration Rates

Growth in target market groups must be sufficiently strong that a new project will not swamp the market. As a result, market analysts look at *capture rates*—the share of projected demand growth that a project must attract to fill its rentable space (allowing for reasonable vacancy) or to sell its lots or homes. *Penetration rates*—the share of total demand that is captured by current competitors and how this share will change with construction of additional product—are also important, especially for specialized market niches (for example, affordable housing for seniors, who must meet strict income- and age-eligibility guidelines set by the federal government).

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 new project in a dynamic market (with a growing number of income-qualified households, a surge in high-paying jobs, or evidence that existing buildings are being renovated/upgraded) might succeed even if it has to capture a relatively high share of future demand. How high is too 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 not expect a high 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. But with the economy slowing, much of the space already under construction has yet to be pre-leased. 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. 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 these three office buildings are 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, the project 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-restricted living. Owners would have to spend

A historic building in Woodbury, New Jersey, converted to affordable housing for seniors. Ground-floor space was slow to lease. *(Deborah L. Brett & Associates)*

A clubhouse in a new single-family-housing development.
(Deborah L. Brett & Associates)

heavily on advertising outside the trade area to attract tenants. Thus, this project is probably too big for the local market area.

As a practical matter, capture-rate calculations assume that a portion of space (usually 5 to 10 percent depending on property type and 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).

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 will 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, and 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 neighborhood shopping center is fully (or nearly fully) leased.

Quarterly net absorption information for new apartments or for commercial and industrial properties in a given submarket can often be obtained from brokers or purchased from data providers,[6] but the average monthly or quarterly absorption experience of individual buildings is more difficult to find. It is important not to equate gross leasing activity with net absorption, which takes into account move-outs as well as new leases.

Absorption rates are important inputs in financial feasibility models; they determine 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. Analysts must also factor pre-leasing (renting space before construction is completed) 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 the 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 (say 200 or more units) 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 community center in a growing trade area might have 60 percent of its gross leasable area (GLA) committed to two or three anchor tenants before construction starts, plus 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 function is one of the most valuable that an analyst can perform. Such recommendations might include the following:

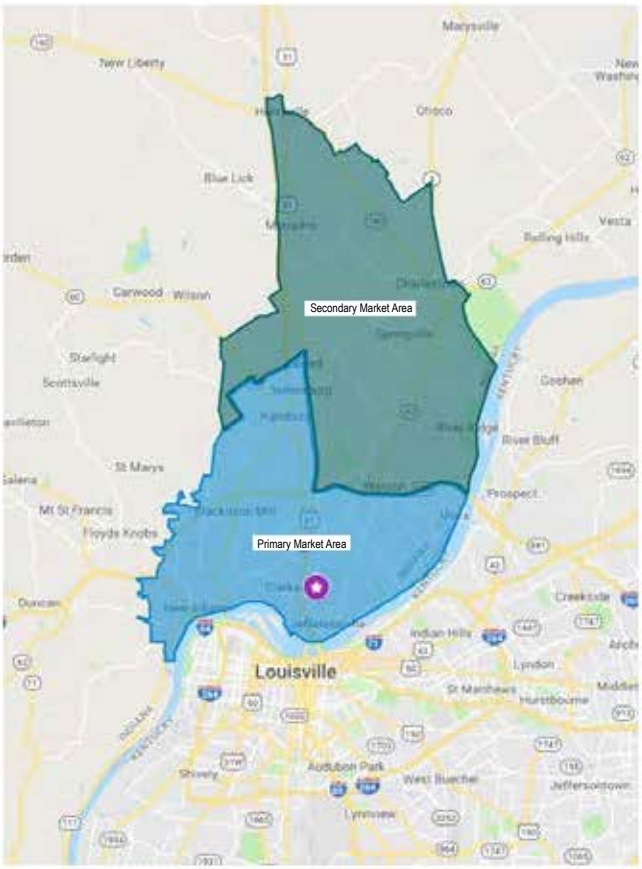
- Shifting the mix of units in a proposed apartment building project to include more (or fewer) two-bedroom units.
- Offering tenants an amenity or service that was not originally envisioned (such as a concierge or rooftop lounge).

- Reducing rents to be more in line with what the competition is offering.
- Modifying the mix of large and small shop space in a proposed shopping center.
- Changing construction phasing in a multibuilding complex if a slowdown in absorption is anticipated.

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 investor or a lender) might be located elsewhere and unfamiliar with it. Using maps and photography helps orient the reader who does not know 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 or a major city. At a smaller scale, a map should show the boundaries of the primary and secondary market areas, location of the site, nearby interstate highways, and key



Primary and secondary housing market areas for a proposed assisted-living facility in Jeffersonville, Indiana, a suburb of Louisville, Kentucky. *(Valerie S. Kretchmer Associates Inc.)*

Transportation

1 SEPTA Bus Stop — Route 6
2 SEPTA Bus Stop —Routes 6 & K
3 SEPTA Bus Stop — Route L
4 SEPTA Bus Stop — Routes 16 and 22
5 SEPTA Olney Transportation Center

Recreation and Places of Worship

6 West Oak Lane Senior Center
7 Center in the Park — Senior Center
8 H&H Community Development Center
9 Simons Community Recreation Center
10 West Oak Lane Public Library
11 Awbury Arboretum
12 Mt. Airy Baptist Church

Social Services and Health Care

13 Albert Einstein Medical Center
14 Rite Aid — RediClinic
15 Wedge Recovery Center
16 Fresenius Medical Care-Olney

Shopping

17 CVS Pharmacy — North Broad Street
18 Aldi Grocery Store
19 PNC Bank
20 Mini-Market
21 8 Brothers Meat Market and Deli
22 Ogontz Avenue Retail Strip Center
23 Relish (Full-service Restaurant)
24 Citizen's Bank
25 Cheltenham Square

A map of amenities and services near a proposed housing development in Philadelphia. The map key identifies shopping, bus routes, parks, and health services. The circle indicates a half-mile distance from the subject location. *(Real Estate Strategies Inc./RES Advisors)*

arterial roads. For an industrial study, the map should show the location of (and distance to) airports, harbors, main highways, and freight rail service. If the market area includes many neighborhoods or political jurisdictions, they should be identified. Mapping software programs can enable the user to specify boundaries, place names, roads, and natural features.

Another map should point out the locations of key amenities 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, parks, recreation centers, and libraries. Reports about housing for seniors should include the locations of the nearest senior centers, hospitals, and medical offices. (If such facilities cannot be easily shown on the map, they should be noted in the text along with their distances from the subject site.)

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 transit stations.

Competitors should also be mapped to show how close they are to the proposed development site or the subject building being analyzed. If the map is not large enough to include property names and addresses, the analyst should substitute a number or letter key with the names and locations of the competitors.

Aerial photographs are useful to illustrate road access and nearby land uses. Photographs of the most comparable properties help the reader to visualize design, density, building heights, construction materials, and other features that are characteristic of the local market area. Reports should also contain pictures of the subject site (even if it is a tract of vacant land) and its immediate neighbors. Investors and lenders will want to feel confident that the surroundings are appropriate for the proposed development.

Providing an Executive Summary

Busy readers will greatly appreciate an executive summary. A thorough summary should cover key observations regarding the site and its surroundings, 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 successful.

Notes

1. For a warehouse market study, it is also important to show other metropolitan areas within a day's driving distance.
2. The ACS replaced what used to be called the decennial census "long form," which provided detailed socioeconomic and demographic information derived from a sample of the population, rather than a full count.
3. ACS and other census data can be accessed through a new website that will be available after June 2019 at www.data.census.gov.
4. Provided through the Local Employment Dynamics (LED) partnership, which combines data collected by states with federal censuses and administrative records.
5. Estimation methods and information sources will not be consistent among metropolitan areas.
6. The Census Bureau conducts a quarterly sample survey of apartment absorption (rental and condominium) in buildings with five or more units, and it provides reports on absorption as of six, nine, and 12 months postcompletion. Data are provided at the national level and for the 45 largest metropolitan areas. https://www.census.gov/history/www/programs/housing/survey_of_market_absorption.html.

CHAPTER 3

CHAPTER 3

MARKET CONDITIONS: EMPLOYMENT, DEMOGRAPHICS, DEMAND, AND SUPPLY

National, regional, and local economic conditions all affect property demand. Macroeconomic variables (interest rates, inflation, unemployment rates, international trade imbalances, 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, what new online and bricks-and-mortar store concepts are introduced, when families move up to pricier homes, and whether 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 data on national trends, 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 understand that the national economy is cyclical. Conditions observed today may change dramatically by the time a new building breaks ground, let alone by the time it is ready for occupancy.

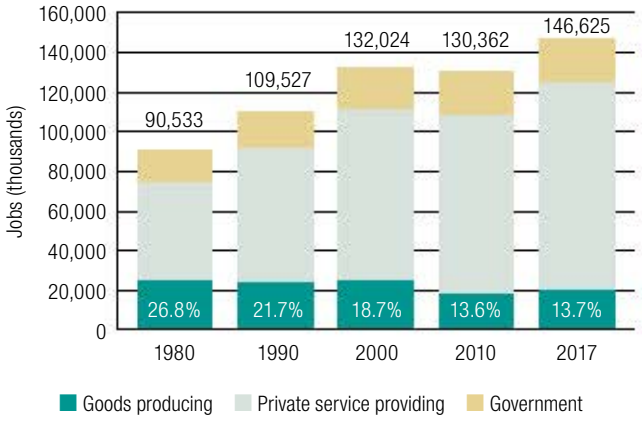
Local conditions may not precisely mirror national trends. Not every metropolitan area benefits from a national economic boom, and some communities will survive a national recession relatively unscathed. As a result, real estate market studies usually give greater weight to metropolitan area economic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

Metropolitan market dynamics are the most important factors considered in projecting housing demand. The only exceptions are for second-home or senior-housing projects that draw from a wide area or for projects that serve special-needs populations, such as persons 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. Although online food shopping and expanded delivery services are growing in popularity, it is still true that most households prefer to buy groceries and other daily needs without traveling far from home. As population growth and the availability of relatively inexpensive land at the urban fringe turns farmland into subdivisions, demand for new convenience retail stores is generated. At the same time, the relatively recent growth of online shopping and off-price, discount, and outlet stores has negatively affected performance of all but the best enclosed super-regional shopping centers.

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, empty nesters, seniors, young singles, or childless couples), depending on the product they plan to build or lease. Discount department store chains will want to locate in areas with middle incomes, while high-end retailers 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 generally more spacious than are those in government buildings. Flexible, shared offices (referred to as coworking spaces) are increasingly popular, especially in urban downtowns and mature suburbs. They provide little in the way of private space per worker. Standards for average space per worker have changed over time, as warehouses became more automated, executive offices were downsized, shared office operators offered flexible lease commitments, and so on. More information on this topic can be found in chapter 6.

Figure 3-1
Change in the Composition of U.S. Nonfarm Employment, 1980–2017



Source: U.S. Department of Labor, Bureau of Labor Statistics, Historical Data, Establishment Employment. www.bls.gov/data.

Note: Percentage figures are goods-producing jobs as share of total employment.

In some cases, real demand cannot be demonstrated on the basis of household growth or income gains. Housing market analysts must consider 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. Analysts should include replacement demand for a small percentage of older or deteriorated housing units and class C commercial/industrial space.

The market analyst must also devote considerable attention to supply factors that affect development feasibility. Typically, supply-side analysis considers (a) macroeconomic trends affecting the market and current conditions (metropolitan area or countywide absorption, vacancy rates, and rents and prices); (b) local area market performance indicators and construction activity; and (c) characteristics of competitive buildings, both existing and proposed. As discussed in chapter 2, brokers and private data vendors are the usual sources of raw information on conditions in the metropolitan area and the submarket, both current and 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; learning about the competition requires field visits and personal or telephone interviews with building owners or managers.

Economic Indicators

A thorough market analysis begins with a review of the local economy and includes highlighting indicators that are most relevant to the particular land use or property type being studied. Real estate developers and their financial partners will want 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, and so they look for evidence of a growing labor force and new job creation. Conversely, when labor markets are tight (unemployment rates are below 5 percent) or when the education and skills to support a specific type of business are lacking in the local area, businesses may be reluctant to expand or seek new locations.

Over the past 50 years, many metropolitan areas underwent a near-total economic transformation. Heavy industry departed, and even light assembly operations shifted overseas. Although there is some evidence that these trends have slowed as wages paid to overseas workers increased and shipping costs rose, U.S. domestic employment in manufacturing and other goods-producing industries is still below levels seen in 1980 and continues to be a declining share of total jobs, as shown in figure 3-1. Manufacturing, construction, and utilities workers totaled more than 24 million in 1980 and accounted for 26.8 percent of all nonfarm jobs. In 2017, only 20.1 million persons worked in these industries, and their jobs accounted for just 13.7 percent of nonfarm employment. Telecommunications, computer services, and data processing firms that did not exist in 1980 were formed, grew, and generated millions of jobs, despite outsourcing of customer service operations to overseas locations.

Although the share of jobs in manufacturing has declined, growth in technology-related industries has created new opportunities for well-paid work. In most metropolitan areas, health care employment has expanded (and will continue to do so as the population ages and as new approaches to medical care are introduced). Educational institutions, both private and public, became more important job generators

Bottling process at the Woodford Distillery in Versailles, Kentucky. *(karenfoleyphotography/Shutterstock.com)*

Figure 3-2
Comparing Sources of Employment Data from the Bureau of Labor Statistics

Topics	Current Employment Statistics (CES)	Local Area Unemployment Statistics (LAUS)	Quarterly Census of Employment and Wages (QCEW)
Description	Employment, average production worker wages, and average weekly hours by industry and geographic area (place of employment)	Employed and unemployed persons by geographic area (place of residence)	Employment, number of employers, average weekly wage, and total wages, quarterly and annual average, by industry and geographic area (place of employment)
Methodology	"Payroll survey" uses a sample of employers	"Household survey" estimates of employed and unemployed persons during a specified week each month	Census of all employers liable for unemployment insurance (97%–99% of total nonagricultural employment)
Populations excluded	Self-employed, agriculture, domestic workers, military	Individuals not in the labor force; persons in the military and in institutions	Self-employed, unpaid family workers, railroad workers, student workers, some agricultural workers
Currency	Monthly data available by the third week of the following month	Monthly data available by the third week of the following month	Quarterly data available six months after the close of the quarter
Geographic detail	United States, states, metropolitan statistical areas (MSAs), counties outside MSAs	United States, states, regions, MSAs, counties, cities larger than 25,000	United States, states, MSAs, counties
Advantages	Current employment data	Current household data	Complete universe of employers, and fine level of geographic and industry detail
Limitations	Uses statistical sample, not universe of employers; not an estimate of employed persons; person holding two jobs is counted twice	"Employed" can be working only a few hours per week; frequent revisions	Six-month time lag and some data confidentiality
Other products	Monthly press release	Monthly press release	

Sources: U.S. Bureau of Labor Statistics; New York State Department of Labor.

as college enrollments expanded and older adults sought "lifelong learning" opportunities both to meet the needs of a changing economy and for personal enrichment.

In today's economy, the largest employers in many markets are hospitals, universities, school districts, supermarket chains, and discount department stores. The mix of industries found in a 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 will one dominated by small high-tech businesses or financial services firms.
- Tourist destinations and convention cities (such as Honolulu, Las Vegas, New Orleans, and Orlando) will need far more hotel rooms than their resident populations would support.
- A city located at the confluence of three interstate highways is often a center for warehousing and distribution uses. Deepwater ports, intermodal rail centers, and international air cargo terminals also create above-average demand for warehouse space.

The market analyst must go beyond analyzing the existing economic base. It is important to learn about announced expansions, new business formations, and companies that may be moving into—or out of—the area.

Employment Statistics

Government agencies publish two types of employment data. *At-place* statistics count jobs according to their location; 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. BLS and state labor departments) are workplace-based. In contrast, *worker-based* statistics (including unemployment rates[1] and much of the information about the occupation and education of the labor force) from the BLS are tabulated by the respondent's place of residence. In addition to the BLS's extensive online databases, state labor, employment, or economic development departments are good sources of information at the state, metropolitan, and county levels, as well as for larger cities.

Figure 3-2 shows the differences among three employment data series from the BLS. CES and QCEW data are based

on place of employment; LAUS provides information on worker characteristics.

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 figure 3-3. For office market studies, jobs in three-digit (and even four-digit) employment sectors may have to be tallied. Comparisons with state and national norms will be helpful in highlighting those industries that are underrepresented or overrepresented in the metropolitan job mix.

For most market studies, the economic overview should include data about total growth in nonfarm jobs over the preceding five to 10 years and about 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 and large municipalities) to the extent they are available. Employment growth rates for the local market area can be compared with state and national statistics. Annual averages should be used when they are available. If monthly data series are used, the analyst should use the same month for every year shown to avoid inconsistencies resulting from seasonal variations.

State labor department websites are often the best sources of monthly and annual employment data for metropolitan areas, counties, and larger cities. Annual averages for selected metropolitan areas can also be found online on the BLS website.[2] BLS data are revised frequently, so it is important to use information from a single data series.

Because real estate developments take years to complete, the market analyst will want to obtain employment projections if they are available. The BLS's 10-year employment projections by industry and occupation are revised every two years. However, they are national in scope; therefore, market analysts should use them cautiously when looking at future employment prospects in a specific metropolitan area or county. Many states, large counties, and regional planning agencies issue their own employment projections but do not update the projections frequently. Private econometric firms such as Moody's Analytics and Woods & Poole Economics provide short- and long-term projections for a fee.[3]

Figure 3-3
Two-Digit Industrial Classifications Used in Employment Statistics

Code	Industry
11	Agriculture, forestry, fishing, and hunting
21	Mining, quarrying, and oil/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 and rental and leasing
54	Professional, scientific, and technical services
55	Management of companies and enterprises
56	Admin, support, waste management, and remediation 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, 2017, www.census.gov/eos/www/naics.

Seasonally Adjusted Data

Monthly employment statistics for the United States, individual states, and metropolitan areas are presented in two ways: seasonally adjusted and not seasonally adjusted. Seasonal adjustment is a statistical technique used by the BLS and state labor departments to measure and remove the influences of predictable seasonal patterns to more accurately reveal how employment and unemployment change from month to month.

Over the course of a year, the size of the labor force, levels of employment and unemployment, and other measures of labor market activity fluctuate because of seasonal events, including changes in weather, harvests, major holidays, and school schedules. Because these seasonal events follow a more or less regular pattern each year, their influence on statistical trends can be eliminated by adjusting the statistics from month to month. These seasonal adjustments make it easier to observe cyclical trends and other nonseasonal movements in the series.

As a general rule, the monthly employment and unemployment numbers reported in the news media are seasonally adjusted data, which are useful for comparing several months of data. Annual average estimates are calculated from the data series that is not seasonally adjusted.