

**Digital Disclosure in the Marketplace:
A Case Study of the REIT Industry**

by

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Bachelor of Science in Planning
Massachusetts Institute of Technology (1996)

Submitted to the Department of Urban Studies and Planning
in Partial Fulfillment of the Requirements for the Degrees of

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and

MASTER OF CITY PLANNING

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Abstract

All REITs can provide information to their wired investors in person, through the mail, a telephone, a fax or a computer. However, with the exception of a hand-full of REITs, REITs do not offer investors the time-based advantage of real-time data through the electronic delivery of information. Although REIT managers recognize that capital is a scarce resource, they have not yet recognized that technological progress demands a more immediate, efficient, inexpensive and environmentally-responsible means of making information available to wired investors.

This thesis addresses the topic of digital or electronic disclosure with an emphasis on real estate investment trusts (REITs). In chapter one, we question the prevailing wisdom and suggest that the traditional ways of providing paper-based disclosure documents to the market are slowly becoming obsolete. In chapters two and three, we provide evidence that the paper-based methods used for disclosure are in fact slow and inefficient. Finally, in chapters four, five, six and seven we entertain new concepts and use new methods and we argue that digital disclosure is a legitimate alternative to paper-based disclosure.

Thesis Supervisor: Blake Eagle
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Thesis Reader: Dr. Michael Shiffer
MIT Department of Urban Studies and Planning

To

Arthur Constantine
"Connie"
MIT Class of 1900

&

Laura Constantine de Ordorica
"Mi Lala"

Acknowledgment

It is proper that I should begin this research by thanking those to whom I owe the completion of this work.

I thank my parents for the gift of life. I thank my mother for giving me the courage to confront and transform every hurdle along the way into a steppingstone. I know of no person more courageous than her. I thank my father for teaching me how to dream. No amount of success can take the place of fulfilling one's dreams. He has taught me to aim high, for every goal begins with a dream; our dreams are the pathway to our destiny.

I thank my sister Grace. It is difficult to express my appreciation to her because one cannot see brotherhood, neither can you hear it nor taste it. But you can feel it. I am blessed to have a sister like her, and whether I am far or by her side I will always be grateful to her.

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Finally, I thank "mi precious". Every sunrise would not be the same without her delightful company and support.

I thank you all.

A handwritten signature in black ink, appearing to read 'Roberto Ordorica', written in a cursive style.

Roberto Ordorica
May 23, 1996

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I. Motivation and Relevance of this Work

What is the value of ensuring instant access to information about the properties in the portfolio of a Real Estate Investment Trust (REIT)?

What is the impact of using the World Wide Web (WWW) to supply information to wired investors?

What is the value to a REIT if it can provide a quantum jump in investor service by providing wired investors with timely financial data in a half hour rather than three days?

All REITs can provide information to their wired investors, computer literate investors with access to the Internet, in person, through the mail, a telephone, a fax or a computer. However, with the exception of a handful of REITs, REITs do not offer wired investors the time-based advantage of real-time data through the electronic delivery of information. Although REIT managers recognize that capital is a scarce resource, they have not yet recognized that technological progress demands a more immediate, efficient, inexpensive and environmentally-responsible means of making information available to wired investors (Furlong 1995). (See Table 1 and Table 2 for a listing of uses of the Internet.)

This research argues that REITs who adopt the technology to provide information to wired investors electronically will have an advantage in securing the attention of wired investors over those REITs who do not (Furlong 1995). Furthermore, this research argues, that REITs who fail to use new ways to reach wired investors and provide them with the information they need and want electronically, will be at a disadvantage in the competition for investor capital.

This research addresses issues surrounding wired investors accessing information about REITs. Due to the maturation of the Internet and the emergence of the World Wide Web (WWW), wired investors can already use a number of services to access information electronically. However, with the exception of the Internet's EDGAR service, there is very little information about individual REITs on the WWW. As a result, before wired investors can continue to access information about individual REITs electronically, REITs must provide investors with entry points on the WWW.

Three years ago, there were no REITs on the Web. Today, a search in any of the major Web search engines calls up approximately twenty. While the presence of REITs on the WWW now represents a small portion of the REIT community, this research argues that REITs who recognize its potential will have an advantage in technology and experience over those who do not (Furlong 1995).

Table 1. Uses of the Internet

Percent of Persons 16+ in U.S. and Canada Using the Internet In the Last 24-Hours Who Used it to

Access the WWW	72 %
Send E-mail	65 %
Download Software	31 %
Participate in an Interactive Discussion	21 %
Partake in an Non-Interactive Discussion	36 %
Use Another Computer	31 %
Utilize Real-Time Audio or Video	19 %

SOURCE: The CommerceNet/Nielsen Internet Demographic Survey, (October, 1995).

Table 2. Uses of the Internet

Percent of Persons 16+ in U.S. and Canada Using the Internet In the Last 3 Months Who Used it to

Access the WWW	44 %
Send E-mail	48 %
Download Software	19 %
Participate in an Interactive Discussion	21 %
Partake in an Non-Interactive Discussion	43 %
Use Another Computer	21 %
Utilize Real-Time Audio or Video	17 %

SOURCE: The CommerceNet/Nielsen Internet Demographic Survey, (October, 1995).

This chapter describes why making information available to REIT investors electronically is an important but sensitive issue, reviews background material, and provides an overview of this research.

1.1 Defining the Research Effort

Real Knowledge is to
know the extent of one's
ignorance.

Confucius

The title of this work, *Digital Disclosure in the Marketplace: A Case Study of the REIT Industry*, is important because it provides an overview of the main subjects addressed in this research. Working our way through the key words in the title, each word is defined in the context of this document:

1.1.1 Real Estate Investment Trusts (REITs)

The four areas, or "quadrants," available to investors in real estate are: private equity, which typically has drawn the lion's share of investors through commingled funds and separate accounts; public equity, most common as REITs; private debt, in the form of commercial mortgages and whole loans; and public debt, such as commercial mortgage backed securities (Hudson-Wilson 1995).

This research focuses on REITs because they are the most common vehicle for public collective ownership of real estate portfolios (For a listing of the driving forces behind the securitization of REITs, see Table 3). A REIT is essentially a conduit, similar to a mutual fund, which escapes corporate income tax if it passes through 95 percent of its income to its shareholders; these shareholders then must report their REIT income, which is taxed at the shareholder level. There are two types of REITs, public and private. Publicly traded REITs usually trade on the major exchanges, such as the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX) or on NASDAQ ("over-the-counter") markets. This research focuses on publicly traded REITs (See Table 4 for a summary of the rules and regulations governing the REIT structure). Whether REITs are public or private, they can be further classified into three groups: equity, mortgage and hybrid. Equity REITs are vehicles which own actual real estate. Mortgage REITs own real estate-backed debt. Hybrids own both debt and equity.

1.1.2 Disclosure

This research focuses on ways REITs can adopt a stance of true communication with wired investors and not just compliance. Investors cannot make a reasoned investment decision without information. Some REITs refuse to provide information beyond what is required by law, or balk

Table 3. Driving Factors Behind REIT Securitization

Factors	Actions
Alternative Investment Vehicles	Retail investors' were dissatisfied with real estate partnerships. Institutional investors' were dissatisfied with commingled funds, group trusts and some direct investments.
Appraisals	There was displeasure among retail investors and institutional investors with the valuation of their investment based on real estate appraisals;
Successful Implementations	The global real estate marketplaces' already had well established and developed public real estate markets that served as examples to the securitisation of REITs.
Tax Reform	The 1986 tax reform reduced real estate capital formation in tax shelters in favor of real estate capital formation for income and growth.
Wall Street	The disappearance of traditional sources of capital that fueled the investments of the '70s and '80s brought forth the emergence of Wall Street as the leading source of capital for real estate.
Liquidity	Investors, both retail and institutional, were in desperate need of some liquidity in their diversified real estate investment;
Structure	The structure of REITs offers unique characteristics: a) a corporation that doesn't pay tax; b) corporate governance, c) liquidity, d) diversity, e) public market valuation, and f) independent directors on REIT governing bodies.
Performance	The performance of many REITs that had relatively low leveraged portfolios and strong, add-value management were performing consistently better than other alternative investments.

SOURCE: Decker, M. "REIT Industry Celebrates 33rd Year; Seeks Active Role In Securitization" *National Real Estate Investor* 35 (1993): 52.

Table 4. REIT Structure: Summary of Rules and Regulations

Rules and Regulations	Highlights
Shareholders Regulations	<p>REITs must have at least 100 shareholders.</p> <p>Five individuals cannot own more than 50% of the stock.</p>
Asset Rules	<p>Seventy-five percent of assets must be in real estate equity, mortgages, REIT shares or cash.</p>
Income Rules	<p>Seventy-five percent of income must come from rents or mortgage interest.</p> <p>No more than 30% of operating income can come from properties held less than 4 years.</p> <p>Ninety-five percent of taxable income must be paid out annually.</p>

SOURCE: McMahon, J. "The long view - A perspective on the REIT market." *Real Estate Issues* 19 (1994): 14.

at disclosing updated information to potential investors or anyone else who is not already a shareholder. REITs often regard financial information as proprietary data fearing that a competitor could figure out where they are making money if they release that information. However, REITs are beginning to pay more attention to disclosure, which can have as dramatic an impact on stock price as the operating earnings themselves (Dowd 1994).

1.1.3 Digital

For the purposes of this research, the term "electronic" and "digital" can be interchanged and refers to Internet Web sites and computer networks (e.g., local area networks and commercial on-line services) used to provide disclosure documents to investors, security holders, and offerees. The WWW offers the capability to provide wired investors electronic or digital substitutes for the traditional paper-based forms of disclosure. Standard reports, such as REIT annual reports, investment research reports, 10-Ks and 10-Qs, can be delivered to the investment community in electronic or digital form. Better yet, standard reports can be made to be interactive when downloaded from the WWW. In addition, interactive multimedia-based electronic publications, available on the WWW, can substitute traditional "road shows" with an added advantage, that they can be delivered in real time from a REIT's database to the terminal or laptop of an investor. Likewise, new forms of digital or electronic communication such as e-mail, virtual chat rooms, and electronic bulletin boards are moving occasional face-to-face encounters, between investors and REITs, to frequent meetings on the WWW, in the information-defined realm of the digital world.

1.1.4 Marketspace

This research focuses on an area of growing interest and of crucial importance for REITs in the future - the "marketspace." Unlike a physically defined "marketplace," the marketspace refers to an electronically, or information-defined, arena in which REITs and wired investors exchange information. Throughout this research it is argued that whenever REITs serve the needs of wired investors through an electronic medium rather than a physical medium, they are operating in the marketspace.

Wired investors are computer literate investors with access to the Internet. The pool of wired investors can be divided in two groups. The first group, properly defined as institutional wired investors, is easily defined because it includes REIT analysts, investment advisors and institutional investors which own or have a propensity to own REIT shares. The second group is a larger more ill-defined grouping because it includes the rapidly growing population of retail investors with access to the Internet.

While institutional wired investors represent approximately 1,000 firms, the number of retail wired investors is not known. However, approximately 37 million individuals have access to the Internet and, although the estimates of computer ownership vary from survey to survey, it is anticipated that

computer ownership will grow dramatically in the next few years. One recent survey suggests that 31% of American households own a personal computer. (Morrison 1995). Another survey found that nearly half of all American households own at least one computer and about 16% of those households that own a computer subscribe to on-line services (McLaughlan 1995).

1.2 Motivation for this Work

He who asks is a fool for
five minutes, but he who
does not ask remains a
fool forever.

Chinese Proverb

The REIT industry has entered the era of the wired investor. In the years to come, the WWW will continue to create great excitement and opportunity. But it is the establishment of digital connections to wired investors, both institutional and retail, and the recognition of the necessity to operate in the marketplace that will transform the traditional REIT-investor relationship over the next decade and beyond. The explicit goal of this research is to cut through the headlines and hype surrounding the information superhighway and to grasp the real impact of the WWW on REITs.

In the coming decade, REITs are in for a surprise if they fail to embrace the information age. Clinton Smullyan, chairman of the executive committee of Teleres, a joint venture between Dow Jones and Aegon Insurance which is building a comprehensive on-line system for the real estate industry, argues that "there has been a genuine structural change in both the [real estate] business and in the world and much of that change is reflected in the failure of the real estate industry to embrace the cybernetic age (Smullyan 1994)."

As the WWW matures and financial data becomes digitized and more widely available, REITs will have to compete more aggressively for capital and the attention of investors. REIT stock prices will have extraordinary pressures as investors will demand better and more information delivered to them anywhere in the marketplace, anytime in the marketplace. As a result, the underlying business processes and core competencies required to compete in the new marketplace will be alien to REITs that do not embrace advances in technology now.

It cannot be assumed, however, that embracing technology and establishing a presence on the WWW will be the solution to everything. In thinking about their investments in technology, REITs must apply the wisdom of Clinton Smullyan: "Electronics will never replace the people in this

business. No one will write a program that can kick the dirt or fall in love with an idea, or be inspired by the smell of fresh poured concrete, or build an edifice out of conviction and sheer persistence. No computer will ever, ever, ever replace wisdom, character, judgment, vision, or sacrifice (Smullyan 1994).” However, the time is ripe for REITs to create long-range plans for harnessing and creating value in the marketplace.

This research argues that the current paper-based disclosure methods used by the REIT industry to provide information to the market limits the ability of REITs to provide timely information to current shareholders and future investors. Furthermore, REITs rely on an antiquated information distribution system that often depends on time-sensitive information being sorted into postal zones and carrier routes before it is physically delivered to investors. Often REITs spend additional resources circumventing the United States Postal Service in order to guarantee faster delivery of important information. However, all of this is being done at a time when digital information will make printed material inefficient and obsolete.

The impact of the information revolution on real estate will make available a whole new set of tools for the wired investor. However, it remains the responsibility of REITs to make the decision to establish a presence on the WWW and, like investors, become “wired REITs”.

1.2.1 The Problems

Historically, REITs have targeted their investments in technology to track statistical information about their properties and/or tenants (Melson 1996). REITs have not yet realized that technology can also be used to build and further the relationship that exists between a REIT and its investor base.

The framework of professionals in the real estate industry has always been that their data is part of their proprietary competitive advantage. However, as Smullyan explains, “data is not a proprietary competitive advantage unless it is valid. Scattered samplings of data held by even the biggest owners, manager, brokers or lenders is not sufficient for the increasingly complex world of the real estate business. The proprietary advantage of limited data is destructively mythical (Smullyan 1994).”

James E. Melson, Jr., founder of Melson Technologies, Inc., a developer of proprietary real estate management and portfolio accounting software, agrees with Smullyan. Furthermore, according to Melson, “real estate has lagged behind other industries in its use of information technology (Melson 1996).” Citing an Ernst & Young / Grubb & Ellis survey, Melson, argues that, to date, corporate real estate has been slow to invest significant resources in technologies that would relate directly to the use of the information superhighway. Cost, Melson reports, is the major concern of those surveyed (Melson 1996). However, Melson concludes that “the [real estate] industry’s use of information technology - or its resistance to it - must change, as the transformation of real estate from private to public

ownership continues, and as corporate America looks more closely at real estate as a tool for operating efficiency and cost reduction (Melson 1996)."

Many industry groups are trying to formulate strategies to penetrate the information age. Of particular interest has been the Institutional Clearinghouse efforts of MIT Center for Real Estate Chairman Blake Eagle, NAREIT's efforts to establish a presence on the WWW and the efforts of TELERES to build a comprehensive on-line system for the real estate industry. However, for the purpose of this research, the Clearinghouse is targeted at commingled funds, and although TELERES has a component exclusively dedicated to REITs, called the REIT Advisor, TELERES is targeted at the professional real estate investor, the buy-side analysts, the sell-side analysts, the fee-paid advisors, and the largest portfolio managers, which means not all wired investors have access to this system. Although NAREIT has established a presence on the WWW, it does not provide specific information on individual REITs. In summary, we are left with the REITs themselves, and when you evaluate the presence of REITs on the Web, one discovers that REITs are not using the Internet and the WWW to increase exposure, track investor interest on their REIT, manage data economically, or to provide the opportunity for wired investors to download data.

This research addresses the following three problems about the ways REITs distribute their information to investors and about the existing tools available on the WWW to find the Web sites of individual REITs.

1.2.1.1 Time, Time, Time

For many years, REITs have operated with a silent partner, whom they trust delivers their data on time to their investors: the U.S. Postal Service (USPS). Furthermore, they have relied on a response-per inquiry system to prepare and package investor kits that is labor intensive, environmentally negative, and that requires excessively complex and inefficient preparation procedures.

Today's technology provides REIT managers with the opportunity to position their REIT on the Web so it can interact with future investors and current shareholders when any of these requests information, not on a per-order basis, but in real time. However, to accomplish this, REITs must focus on time in order to give their investors what they want when they want it.

In the early 1980s, Japanese firms demonstrated the power of a new dimension of competitive advantage: fast response time (Ruch 1990). Japanese companies became formidable competitors because they learned to compress the time needed to make and distribute products, and simultaneously reduced the time required to develop and introduce new ones. Their ability to offer a broad product line, target a wide spectrum of market segments, and increase the technological sophistication of their products has been nothing short of revolutionary.

The time-based disclosure techniques that REITs can adopt are a powerful means to gain a competitive advantage. In the future, REITs with an ability to satisfy requests for information from wired investors faster should draw investment capital from their competitors who have not dedicated themselves to providing information to their wired investors faster than anyone else.

How quickly do REITs respond to a request for information? Until a formal evaluation is performed, it is usually difficult to deny that REITs have fast response times to an investor's request for information. This research, therefore, conducts a formal evaluation and provides a better insight into how quickly REITs respond.

1.2.1.2 Content, Content, Content

For wired investors, one of the most precious resources is time. However, another priceless resource is knowledge. To make an investment decision, wired investors want to be able to have all the information they need, when they need it. Many industry publications are published every week, but there is hardly the time to read them all, confirm the information, and make an investment decision on-time. Furthermore, although wired investors are surrounded by televisions, radios, computers, telephones, and fax machines, with only 24 hours in a day, it seems almost impossible to analyze everything that is relevant when trying to determine which is the best REIT to invest in. That is why wired investor are more concerned with the quality of the information they receive from a REIT than they are with the quantity.

The vast amount of information available in the marketplace and the marketspace defines the business and market environment within which a REIT operates. The rapid growth of the WWW has not yet touched the REIT community in full force. Nevertheless, REITs must not pass up an opportunity to increase the amount of information available to wired investors through the WWW. However, they must do so without making it more difficult to sort through what is relevant and what is not. The WWW has opened a wide range of possibilities for REITs. To take advantage of these opportunities, REITs must find ways to provide information to wired investors that are not only timely, accurate and consistent, but also in a format which can be used and combined with other data.

In other industries, businesses have recognized that the information function extends beyond internal accounting systems (Lemieux 1996; Richardson 1995; Dallas 1995; Devlin 1995). In the 1990s, providing wired investors effective information resources has become a core element of successful corporate strategy (Earl, Sampler and Short 1995; Sabherwal and King 1995). What makes up a traditional REIT investor kit? Can the information REITs provide their investors be easily used and combined with other data? Can the information be disclosed in digital form? This research provides a better insight into what type of paper-based information REITs

provide a wired investor that requests information. Furthermore, the content of REIT investor kits is analyzed to determine if the information contained can be presented in digital form.

1.2.1.3 Location, Location, Location

Imagine a college-educated REIT investor who wants to capture some of the geographic diversification opportunities that REITs provide. Or imagine a wired investor, with a median income between \$50,000 and \$60,000, who knows what region of the United States he wishes to invests but does not know what is the product type focus (Office, Residential, Retail, Hotel, Health, or Industrial) of the REITs in that region.

It should be easy for this hypothetical wired investor to find the information he needs quickly on the WWW, or at least while the interest remains. Chances are that a visit to the Web site of the (NAREIT) will point him in the right direction. However, what happens when our hypothetical wired investor wants financial information or property-specific information, etc.? Furthermore, the wired investor wants to receive this information free of charge. If this is the case, chances are that this type of information is neither centralized, easily accessible, easily manipulated, and free.

Wired investors who strive to diversify their real estate investments need information about the actual spatial distribution and property type distribution of the portfolios of REITs. The REIT universe is expanding very rapidly. In this changing environment, wired investors are lacking a system that allows them to constantly monitor the changing pattern of REIT investments. There is currently no system on the WWW that serves as a comprehensive on-line real estate aid that enables wired investors to track the portfolios of REITs. Furthermore, there is no filtering system on the WWW that allows wired investors to choose from a selection of REITs and to eliminate those that do not fit into their investment criteria, based on property type or geographic region. A comprehensive on-line real estate aid is needed to link REITs to wired investors.

Imagine, for example, if a wired investor who wanted to invest in retail properties in Georgia, could electronically find out what retail REITs had properties in Georgia. Furthermore, imagine if the wired investor could upload the most current financial data on each of those REITs, and use a spreadsheet at home to decide whether to invest or not. To make the analysis better, imagine if the investor had a way to reach the managers of these REITs to clarify some of the numbers, the REIT's strategy or even to confirm a rumor.

This research suggests the design of a prototype which incorporates a geographically based database overlaid by a set of multimedia representational aids to create a comprehensive on-line real estate aid that wired investors can use to find out what REITs have properties where and into what property type categories these properties fall into. An

organizational structure is discussed to enhance the presence of REITs on the WWW.

1.3 Relevance of this Work

Like the bee, we should
make our industry our
amusement.

Oliver Goldsmith

As we approach the turn of the century, REITs are firmly established in the equity markets. However, as it happens with all investments, investors are beginning to discover that not all REITs were created equal. REIT investors, more than ever, have become concerned with earnings quality and realistic growth scenarios. This has created a great demand for REIT information, specifically property data and information on the management teams of REITs and their capacity to grow the REIT over time (McMahan 1995). This information is critical to properly valuing these real estate securities.

1.3.1 Accomplishments of the REIT Industry

During the first half of the 1990s, the REIT industry enjoyed the largest boom period in its 36 year history. Never before had there been a larger wave of equity initial public offerings (IPOs). Merrill Lynch initiated the boom with the now famous Kimco Realty Corp. offering of 1991. The Kimco IPO proved to be the first sign that REITs were back as an investment device to finance real estate but, more importantly, real estate operating companies. Every year, between 1991 and 1994, the number of money raised by REIT IPOs increased:

- 1991: Eight IPOs raised \$808 million.
- 1992: REIT IPOs raised \$919 million.
- 1993: Seventy-five equity IPOs raised \$11.1 billion.
- 1994: REIT IPOs raised \$9.5 billion (Himmel 1995).

To put the amount of money raised in 1993 and 1994 in perspective, during the five years prior to 1993, 62 issues had only raised \$3.7 billion (McMahan (1994).

In 1994, rising interest rates put a stop to the upward trend of IPOs. However, by 1994 the industry had doubled in size and investors looking to invest in REITs could choose among a list of 226 (Baker 1995). A few more REITs were added to the list between 1995 and 1996. All in all, an investor wanting to invest in REITs found an industry were even neighboring REITs

were as different from each other as a modern day building and one build during the renaissance.

By 1996, an investor could find REITs off all property types and of all sizes, owning or operating properties throughout the United States. Furthermore, such a wide diversity of REITs prompted investors to “shift their focus to participation in the future economic growth of geographic areas and property types through investment in REITs with the ability to add value through development, redevelopment and active management (McMahan 1995).

1.3.2 Challenges of the REIT Industry

The REIT Industry is currently facing three challenges:

1. Increasing the size of the investor base.
2. Making a successful transition to real estate operating companies.
3. Providing more and better information to the market.

1.3.2.1 Investor Base

Industry observers concur that among the most important obstacles that need to be overcome to ensure a strong REIT sector is the size of the investor base (Baker 1995). It is no secret that for the REIT industry to continue to expand, it must continue to attract institutional investors (Gibbs 1995).

During the first half of the 1990s, the size in market capitalization of the REIT industry, coupled with the growth in the number of REITs were not the only things that changed. During this same period, the REIT industry saw a brief shift in ownership to institutional investors from retail investors. A review of the REIT industry’s investor base reveals that between 1991 and 1994, the initial public offerings by REITs attracted a heavy-dose of investment by mutual funds, insurance companies and institutional money managers (National Mortgage News 03/28/94). In 1992, retail investors owned about 75% of REIT shares. Between 1992 and 1995, the share ownership of retail investors decreased steadily. By 1995, institutional investors owned almost half of the shares trading publicly (Baker 1995).

Although the increased participation by institutional investors is good for the REIT industry, it also has its discomforts. As institutional investors become more prevalent, REIT stock-trading also becomes more volatile. Institutional investors are more active traders; they go in and out of a stock, and they are never afraid to short it (Mortgage-Backed Securities Letter 09/26/94). (See Table 5 for a summary of the driving forces behind the REIT slowdown.)

Table 5. Driving Forces Behind Slowdown in REIT Investment Since 1994

Factor	Action
Interest Rates	<p>Interest rate increases created alternative investment opportunities that diverted capital from REIT IPOs and secondaries, and caused selling pressure for REIT stock prices.</p> <p>The increases in interest rates in 1994 gradually eroded the difference between the REIT dividend yields and the return on risk-free investments.</p> <p>A significant amount of capital left the REIT market and was placed into alternative investments.</p>
Mutual Funds	<p>In 1994, the withdrawal of mutual fund investments caused selling pressure for REIT stocks and, in turn, pushed public REIT stock prices down.</p> <p>A combination of an increase in interest rates and the poor performance of the mutual funds holding REIT shares, prompted mutual funds to seek other investment alternatives.</p> <p>Institutional holders of REIT stock decreased their holdings in REIT shares during the fourth quarter, 1994.</p>
Retail Investors	<p>Lack of retail support of REIT stocks caused downward pressure on stock prices.</p> <p>REIT stocks need a solid retail support to maintain stock prices. This support, albeit growing, is not yet able to sustain a stock price.</p> <p>As retail investors become more sophisticated, they will serve as more of a stabilizing factor.</p>

SOURCE: McDonnough, C. D. "State of the REIT Industry." National Real Estate Investor 37 (1995): S11.

As a result, as the number of institutional investors grows, REITs cannot lose sight of the importance of retail investors. Unless retail investors maintain a solid share of the market for REIT stocks, the industry runs the risk of losing long term stability (McDonnough 1995).

Conservative retail investors typically divide their portfolios into thirds, allocating each third to sectors such as equities, fixed income, and real estate. REIT stocks need a solid retail support to maintain stock prices (McDonnough 1995). Many industry observers believe that "retail investors are currently staying on the sidelines and that they are not as attracted to REITs. It is expected that the share of retail investor will grow towards the end of the decade (Landauer 1996)." However, before this can happen, retail investors need to become more knowledgeable and better informed about the opportunities that REITs provide (McDonnough 1995).

1.3.2.2 Real Estate Operating Companies

Historically, equity REITs were a passive investment vehicle managed by outside advisors. In contrast, the initial public offerings of the 1990's have been fully integrated real estate operating companies with experienced management. However, many of the REIT investors who fueled the recent boom were lured to the market by the higher dividend yields offered by REITs relative to other asset classes. Since this is not always the case, especially when interest rates rise, industry observers believe that REITs must reconsider their strategies and learn new ways to earn investor confidence in the public markets (Libert and Ribaudo 1995).

Some industry observers believe that the key to attracting more investors is to convince investors that REITs have made a transition from firms whose primary goal was the accumulation of assets to true corporations (Libert 1994). Other recommendations being made is that REITs must provide investors with better information about their operations (Libert 1996). If investors are not given access to quality information, interest in REITs can diminish and effectively shut down future growth in the market.

1.3.2.3 Information

Since I began conducting research on the REIT industry, I have been frustrated by the time and expense needed to collect data for analyzing REITs. In my frustration to find data, I have discovered that I am not alone. Discussions with members of the REIT community have confirmed my own experience that investors are frustrated at the effort and expense required to gather information about REITs, their properties, and markets where these properties reside. Although several information services have been launched to fill that information need, none use the WWW for distribution. Furthermore the more complete ones cost several thousand dollars a year to use.

Equity real estate that is securitized and sold in the public markets is subject

to the same disclosure standards as other publicly-traded companies. Since going public, REITs have been under increased pressure to offer more information on their financial statements and property portfolio. However, many investors lack expertise in this sector. This concern is driving REIT investors to seek more information on individual REITs as well as the behavior of the REIT market as a whole.

A legitimate concern exists that unless more and better information is provided to investors, these sometimes inexperienced REIT investors can easily overlook the quality of a REIT's assets as well as the underwriting standards of some of the IPOs. As history has shown, it is never long before aggressive adjustments to FFO, or loose underwriting standards hurt a REIT (Dowd 1994).

1.3.3 The Future of the REIT Industry

There is clearly a perception that REITs have the ability to grow and that the industry should continue to flourish. The REIT market has reached a point of greater sophistication and investors are becoming more selective, better educated and increasingly more demanding. Though the initial public offering market largely remains closed to new REITs, investment bankers have continued to broaden the capital markets reach of existing ones through secondary equity, unsecured debt, and most recently medium-term note offerings. Some industry observers expect to see more REIT mergers, and a few REITs have begun studying how they can expand internationally (Baker 1995).

1.4 Related Work

I hear and I forget. I see
and I remember. I do
and I understand.

Confucius

This research draws from diverse disciplines, integrating theories, ideas and techniques in important ways. There is a wide body of knowledge and literature that addresses particular aspects of the three problems presented in the previous section. Rather than immerse the reader in an extensive literature review here, only to have him refer back to this section when each of the problems above are addressed, a comprehensive literature review of the subjects addressed in each section of this document will be presented at the beginning of each chapter. This method should facilitate the reading of this document for those readers who are only interested in certain aspects of this research.

1.5 Cluster Analysis

To each according to his
needs.

Karl Mark

Cluster analysis results in the meaningful clustering of a smaller number of mutually exclusive groups. Throughout this research, cluster analysis is conducted to help identify clusters of REITs which have similar attributes, and to determine the significance placed on distinct variables by each sub-group in isolation (Wiggins and Ruefli 1995).

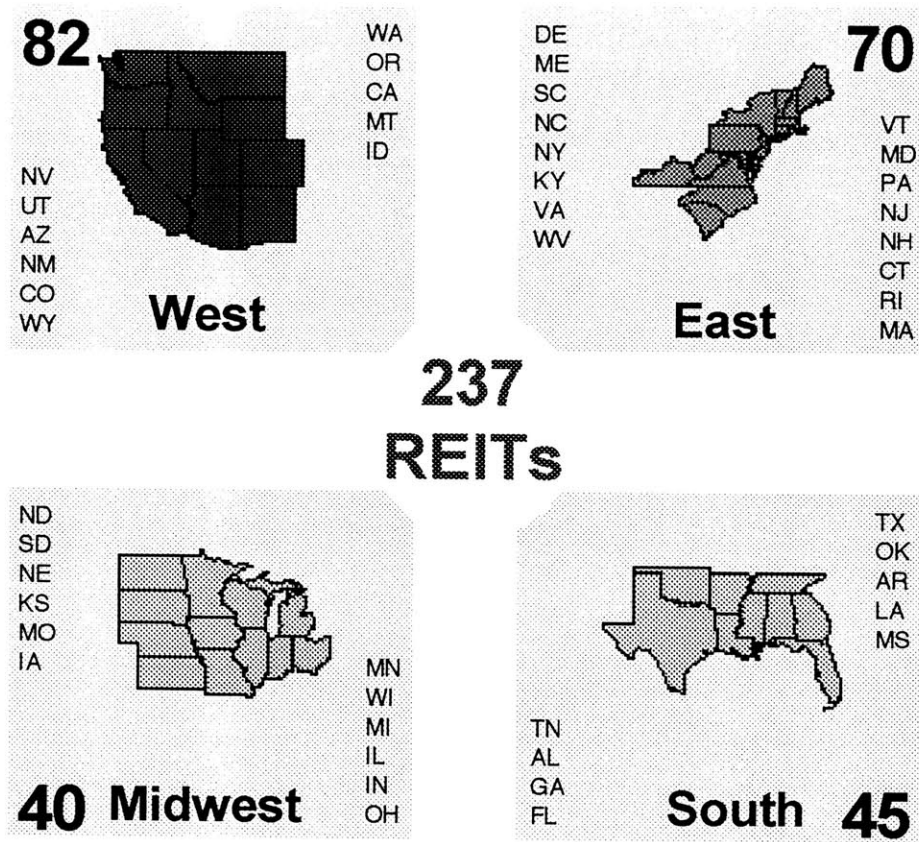
To cluster REITs into separate sub-groups, a data base was compiled using data drawn from a variety of publicly available statistical data sources published annually by the National Association of Real Estate Investment Trusts (NAREIT). Throughout this research, REITs will be referred to by geographic region, property type, exchange in which their stock trades, the size of their employee base, and the size of their shareholder base.

1.5.1 Geographic Cluster

The National Council of Real Estate Investment Fiduciaries' (NACREIF) utilizes a spatial categorization scheme that divides the United States into four geographic regions (See Figure 1):

- *West:* This region includes Washington, Oregon, California, Montana, Idaho, Nevada, Utah, Arizona, New Mexico, Colorado, and Wyoming. 82 REITs in the sample population are headquartered in this region, comprising the largest grouping of REITs by region.
- *Midwest:* This region stretches through the heartland of the United States. This region includes North Dakota, South Dakota, Nebraska, Kansas, Missouri, Iowa, Minnesota, Wisconsin, Michigan, Illinois, Indiana, and Ohio. Only 40 REITs in the sample population are headquartered in this region, comprising the smallest grouping of REITs by region.
- *South:* This region is dominated by Texas and Florida, but also includes Oklahoma, Arkansas, Louisiana, Mississippi, Tennessee, Alabama, and Georgia. 45 REITs in the sample population are headquartered in the south.
- *East:* This region includes the states on the northeast part of the Atlantic coastline. Included in this region are Delaware, Maine, South Carolina, North Carolina, New York, Kentucky, Virginia, West Virginia, Vermont, Maryland, Pennsylvania, New Jersey, New Hampshire, Connecticut, Rhode Island, and Massachusetts. 70 REITs in the sample population are headquartered in this region.

Figure 1. Publicly Traded REITs by Geographic Region



SOURCE: National Association of Real Estate Investment Trusts (NAREIT).

An attempt to maintain a regional classification system consistent with NACREIF was deemed beneficial. Throughout this research, the reader is cautioned that classification by geographic region does not refer to an aggregation by geographic region of the portfolio held by each individual REIT. In this research, REITs are classified by region according to where they are headquartered.

1.5.2 Property-Type Cluster

The cluster in this section parallels the previous section with the sample divided by property types. Every year, the National Association of Real Estate Investment Trusts (NAREIT) compiles the real estate investments of REITs by property type. As it can be observed in Figure 2, for simplification purposes, NAREIT consolidates different property types into seven classifications:

1. *Health*: Health related facilities (18 REITs in the sample population were classified as health REITs).
2. *Hotel*: Hotels, Motels and Hospitality related facilities (18 REITs in the sample population were classified as hotel REITs).
3. REITs in the sample population were classified as industrial REITs).
4. *Office*: Office and Research and Development Facilities (20 REITs in the sample population were classified as office REITs).
5. *Residential*: Apartments, Manufactured Homes and Single Family Homes (56 REITs in the sample population were classified as residential REITs).
6. *Retail*: Regional Malls, Strip Shopping Centers and Factory Outlet Centers (56 REITs in the sample population were classified as retail REITs).
7. *Other*: Construction, Country Clubs, Golf Courses, Heliports, Horse Breeding Farms, Horse Racing Tracks, Individual Businesses, Land, Parking Facilities, Partnership Interests, Post Offices, REIT Shares, Recreation Facilities Restaurants, Tennis Facilities, Theaters, Trucking Terminals, Unspecified Commercial Properties (21 REITs in the sample population were classified in this property type).

For the purpose of this research, REITs were classified into one of the seven property types specified by NAREIT when 50% or more of a REIT's real estate holdings were invested in one property type. In those cases, where a REIT had its real estate holdings diversified across several property types and no one property type surpassed the 50% threshold, an eighth classification, termed "Diversified", was added.

8. *Diversified*: For a REIT to be considered diversified by property type, less than 50% of the REIT's portfolio had to be allocated to each of at least three of the seven major property types, Health Care, Hotel, Office, Retail, Residential, Industrial and Other (23

REITs in the sample population met the criteria for this property type classification).

Table 6 shows the distribution of REITs by property-type and region.

1.5.3 Exchange Cluster

137 REITs are listed on the New York Stock Exchange (NYSE), 61 REITs in the American Stock Exchange (AMEX) and 37 on the Over-the-Counter (OTC) market (See Table 7).

1.5.4 Employee Cluster

In real estate, size concepts usually refer to the market capitalization of a REIT. However, for the purpose of assessing the efficiency of a REIT and how quickly it responds to an investor's request for information, in this research, two separate size- variables were identified. The first refers to the number of full time employees a REIT has (See Table 8). Throughout this research, REITs are assigned to employee sub-populations according to the following criteria:

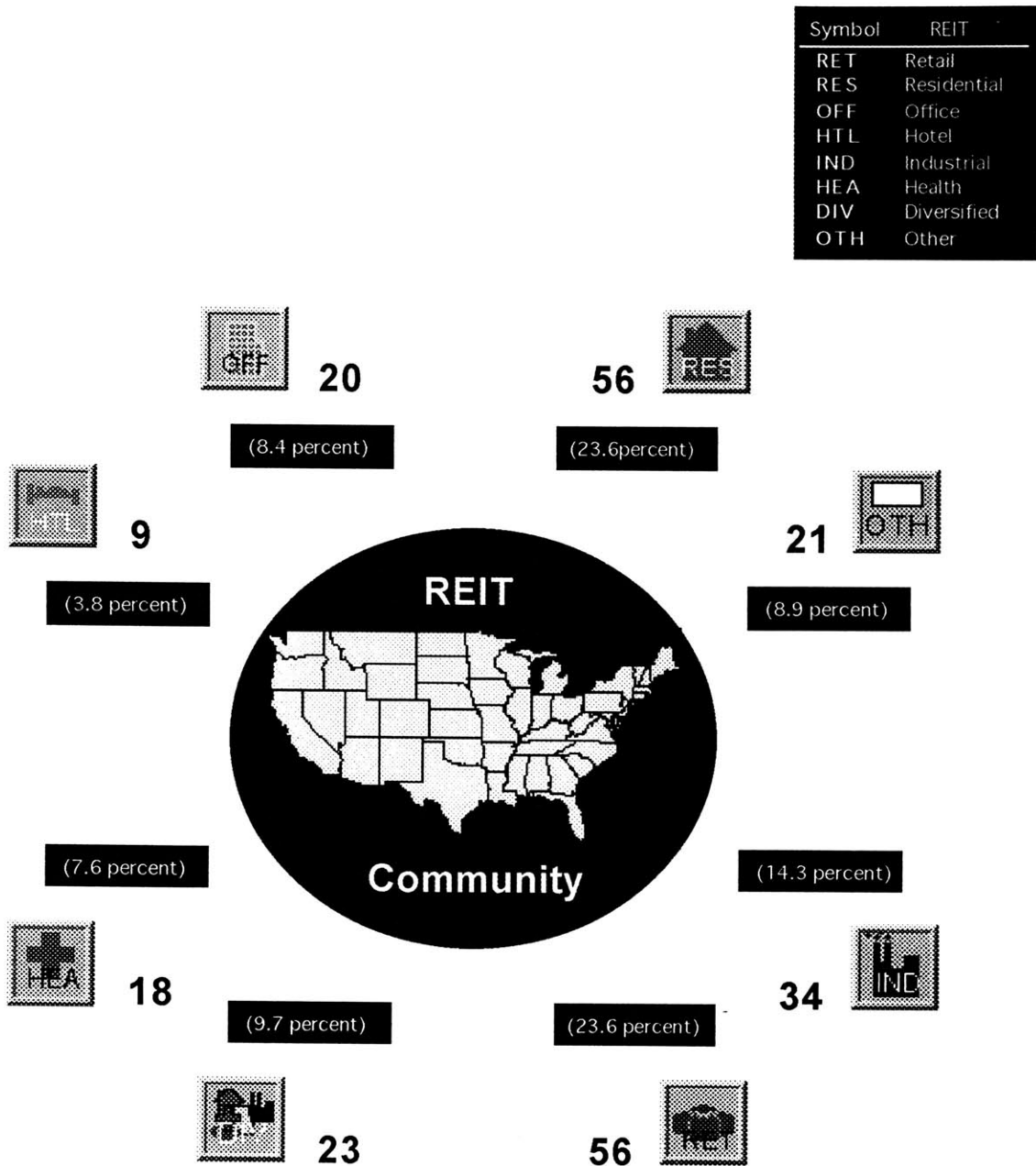
- *Small:* A REIT with less than 25 full time employees.
- *Medium:* A REIT with an employee base that ranges between 25 full time employees and 100.
- *Large:* A REIT with more than 100 full time employees, but less than 500.
- *Mega:* A REIT with more than 500 full time employees.

1.5.5 Shareholder Cluster

The second variable formulated to capture size refers to the size of the investor base. Sub-populations were created to classify each REIT according to the size of their investor base (See Table 9). However, since REITs must have at least 100 shareholders, only three sub-populations were created:







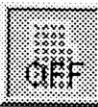




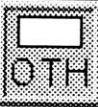
- *Small:* A REIT with less than 500 shareholders.
- *Medium:* A REIT with more than 500 shareholders, but less than 5,000.
- *Large:* A REIT with more than 5,000 shareholders.

Figure 2. Publicly Traded REITs by Property Type





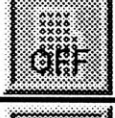

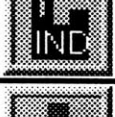
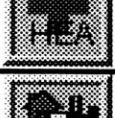
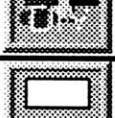
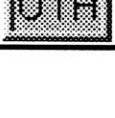
SOURCE: National Association of Real Estate Investment Trusts (NAREIT).

Table 6. Cluster Analysis: Property-Type by Geographic Region

Property Type	Region	 70 WEST	 82 MIDWEST	 40 EAST	 45 SOUTH
 Retail (56)		17.9 (percent)	26.8 (percent)	41.1 (percent)	14.3 (percent)
 Residential (56)		25.0 (percent)	17.9 (percent)	32.1 (percent)	25.0 (percent)
 Office (20)		15.0 (percent)	15.0 (percent)	45.0 (percent)	25.0 (percent)
 Hotel (9)		11.1 (percent)	0.0 (percent)	33.3 (percent)	55.6 (percent)
 Industrial (34)		76.5 (percent)	8.8 (percent)	11.8 (percent)	3.0 (percent)
 Health (18)		38.9 (percent)	16.7 (percent)	22.2 (percent)	22.2 (percent)
 Diversified (23)		30.4 (percent)	17.4 (percent)	26.1 (percent)	26.1 (percent)
 Other (21)		66.7 (percent)	9.5 (percent)	14.3 (percent)	9.5 (percent)

SOURCE: National Association of Real Estate Investment Trusts (NAREIT)

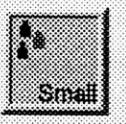
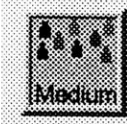
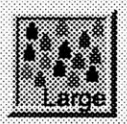








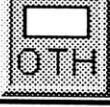
Table 7. Cluster Analysis: Property-Type by Exchange

Exchange		NYSE	AMEX	OTC
Property Type				
Retail		75.0 (percent)	10.7 (percent)	14.3 (percent)
Residential		71.4 (percent)	17.9 (percent)	10.7 (percent)
Office		66.7 (percent)	16.7 (percent)	16.7 (percent)
Hotel		22.2 (percent)	0.0 (percent)	77.8 (percent)
Industrial		20.6 (percent)	73.5 (percent)	5.9 (percent)
Health		83.3 (percent)	5.6 (percent)	11.1 (percent)
Diversified		43.5 (percent)	30.4 (percent)	26.1 (percent)
Other		42.9 (percent)	42.9 (percent)	14.3 (percent)

New York Stock Exchange, NYSE (137)
 American Stock Exchange, AMEX (61)
 Over-The-Counter Market, OTC (37)

SOURCE: National Association of Real Estate Investment Trusts (NAREIT).

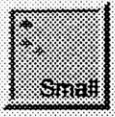
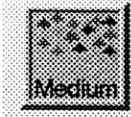
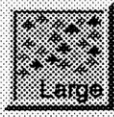







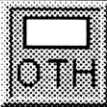
Table 8. Cluster Analysis: Property-Type by Number of Employees

Employee Pool		 Small	 Medium	 Large	 Mega
Region					
	Retail	28.3 (percent)	39.1 (percent)	23.9 (percent)	8.7 (percent)
	Residential	18.2 (percent)	9.1 (percent)	45.5 (percent)	27.3 (percent)
	Office	18.2 (percent)	27.3 (percent)	54.6 (percent)	0.0 (percent)
	Hotel	83.3 (percent)	0.0 (percent)	16.7 (percent)	0.0 (percent)
	Industrial	58.1 (percent)	22.6 (percent)	13.0 (percent)	6.5 (percent)
	Health	76.9 (percent)	7.7 (percent)	7.7 (percent)	7.7 (percent)
	Diversified	78.6 (percent)	7.1 (percent)	14.3 (percent)	0.0 (percent)
	Other	77.8 (percent)	22.2 (percent)	0.0 (percent)	0.0 (percent)

Small (74)	1	Employee to	25	Employees
Medium (36)	26	Employees to	100	Employees
Large (45)	101	Employees to	500	
Mega (19)	> 500	Employees		

SOURCE: National Association of Real Estate Investment Trusts (NAREIT).

Table 9. Cluster Analysis: Property-Type by Number of Shareholders

Investor Base		 Small	 Medium	 Large
Property Type				
Retail (56)		35.4 (percent)	56.3 (percent)	8.3 (percent)
Residential (56)		47.7 (percent)	43.2 (percent)	9.1 (percent)
Office (20)		55.6 (percent)	33.3 (percent)	11.1 (percent)
Hotel (9)		50.0 (percent)	37.5 (percent)	12.5 (percent)
Industrial (34)		12.1 (percent)	63.7 (percent)	24.2 (percent)
Health (18)		18.7 (percent)	81.3 (percent)	0.0 (percent)
Diversified (23)		19.1 (percent)	57.1 (percent)	23.8 (percent)
Other (21)		20.0 (percent)	53.3 (percent)	26.7 (percent)

Small (66) 1 Shareholder to 500 Shareholder
 Medium (109) 501 Shareholders to 5000 Shareholders
 Large (28) > 5000 Shareholders

SOURCE: National Association of Real Estate Investment Trusts (NAREIT).

1.6 Outline of this Document

This section provides a brief road map to this research and this document, encouraging quick visual skimming in areas of interest to the reader.

1.6.1 Chapter 1

The casual reader will enjoy reading this chapter because it describes the fundamental problems being addressed and the relevance of this research.

1.6.2 Chapter 2

In chapter two, we introduce time-based disclosure. In this chapter, we make use of unobtrusive observation to evaluate the time it takes a REIT to respond to a request for information. Typically, this technique involves a surrogate investor requesting some form of service by a REIT followed by an observer who reviews specified aspects of the response. For example, if the surrogate investor requests an investment kit from a REIT, the time it takes a REIT to respond to the surrogate investor may be monitored by the observer. Furthermore, before the surrogate investor makes use of the information contained in the investment kit, the content can be analyzed by the observer to determine the relevance of its content. Finally, the observer can record how the surrogate investor makes use of the information contained in the investor kit. Theoretically, this method evaluates service as it is most likely to be delivered, and it compensates for the tendency of a REIT to do better because they know they are being evaluated.

In chapter two, a surrogate investor makes a formal request for information to 237 REITs. As observers, we track the time it takes REITs to respond. The goal of this part of the research is to assess the speed with which REITs respond. Before we can claim that the WWW can facilitate disclosure by reducing the time it takes a REIT to respond to investors' needs, we need to know how long it currently takes REITs to respond. Although most REITs have always been forced to cope with time-based related problems (tenant leases or construction deadlines to name only a few), recent advances in technology have begun to make REITs more aware of time as a dominant feature in the competition for investors.

1.6.3 Chapter 3

In chapter three, having just learned how long it takes REITs to respond to a request for information, we conduct a survey of the REIT community. Three of the questions we ask are time related questions. For reliability, we compare the answers of the time related questions to the on-time response rates calculated in chapter two. In addition, we ask REITs three Internet related questions. The goals of this part of the questionnaire is to assess the number of REITs that have a connection to the Internet. Finally,

we ask REITs six questions to gather opinions and perceptions surrounding the use of information as a competitive tool.

1.6.4 Chapter 4

In the 1990s, advances in technology have given birth to the wired investor, computer literate investors with access to the Internet. In chapter four, we perform a simple cost/benefit analysis of providing disclosure documents on the World Wide Web.

1.6.5 Chapter 5

In chapter five, taking advantage of the investor kits that were received to conduct this research, we evaluate the content of 167 investors kits. The goal of this part of the research is not to grade or judge the quality of the disclosure documents contained in an investor kit. Instead, the goal is to evaluate what types of disclosure documents are being utilized by REITs to disclose information. Before we can talk about digital disclosure, we have to consider that not everything included in an investor kit can be represented in digital form. For this reason, in chapter 5, we evaluate what exactly REITs include in an investor kit and we determine if these same forms of paper-based disclosure can be used on the WWW.

1.6.6 Chapter 6

In chapter six, we review the regulations surrounding the disclosure of REIT data, including those rules that affect digital disclosure.

1.6.7 Chapter 7

In chapter seven, we introduce REITSEARCH, a prototype spatial multimedia system to facilitate the location of REITs on the WWW. REITSEARCH is an experiment intended to demonstrate the concept of complete information distribution to the REIT community. However, the primary goal of REITSEARCH is to facilitate the location of REITs throughout the WWW.

REITSEARCH was developed at the Spatial Multimedia section of the Planning Support Systems Group of MIT's Department of Urban Studies and Planning under the direction of Dr. Michael Shiffer. Headed by Dr. Shiffer, research in the Spatial Multimedia Group specializes in providing spatial multimedia tools that can aid the planning process. Spatial multimedia tools provide a method of interacting with planning tools using direct manipulation graphical interfaces.

1.6.8 Chapter 8

In chapter eight, we discuss the contributions of the research and areas of continued work.

2. Time-Based Disclosure

Until a formal evaluation is performed, it is usually difficult to deny that real estate investment trusts (REITs) have good service policies and standards in place to fulfill an investor's requests for information. When I first began to get interested in real estate, everything seemed encouraging over in the REITs I occasionally contacted. When I needed information on a specific REIT, I would mail a letter requesting information, or I would call the REIT. Usually, I would wait a couple of days before I would get a package in the mail.

However, how do REITs really know if they are delivering to their investors the information they need on-time? In other industries, research consistently shows that 90 percent of customers who are disappointed never tell the service provider (Kuipers 1993). Furthermore, REITs have never been known to be customer-processing operations that have systems in place to monitor investor satisfaction (Johnston 1987). The truth is, very few REITs actually focus or have customer-processing operations targeted at their investors (Silverman 1995). Many REITs have made great strides to implement customer-processing operations for their tenants, but the same has not been done for their investors (Silverman 1995).

In today's marketplace information is a source of competitive advantage (Lin 1994). As a result, the speed of response to an investor's request for information must also be seen as a source of competitive advantage. However, speed in internally processing investors' demands for information is not enough. Investors care only about the total cycle time from start to finish - from when their need for information arises to when their request for information has been satisfied. Investors are not impressed by short processing cycles on the part of a REIT if the postal service makes response time slow. Time consumed anywhere in the process from the request for information on through to processing and delivery of that information is equally valuable. Therefore, time squeezed from any part of the process has the same value to investors. To truly take advantage of time-based disclosure, REITs must shrink the entire disclosure process by time compressing activities that lie both inside and outside a REIT's walls (Blackburn 1992).

Many service firms have gained the powerful insight that time-based competition is not constrained to manufacturing. As a result, time-based disclosure is appropriate and well suited to activities that affect the ability of a REIT to respond quickly to investor's needs. The over-all effect of treating the speed of response to an investor's request for information as a source of competitive advantage results in faster cycle times on requests for information which directly affects investor satisfaction (Chen and Hernon 1982).

The objective of this chapter is to identify and understand the nature of the response curve obtained from a request for information from the REIT community. First, we go over the literature to build a foundation and to review models that explain the response-time to a request for information. Having searched for examples of response time models, a model was created to explain the responses to a request for information made to 237 REITs.

2.1 LITERATURE REVIEW

In our new information
society, the time
orientation is to the
future.

John Naisbitt

2.1.1 Time

In the manufacturing, product development, and operations management literature, time concepts can be traced back to three meanings (Bartezzaghi, Spina, Verganti 1994):

1. Delivery time, that is the time a customer waits between placing an order and receiving shipment; in this case the time concept relates to the performance as perceived by the customers, both external and internal.
2. Time as an indicator of the utilization of the resources which operate the process. For example, it is computed as the effective use of equipment (machine hours) or labor (man hours). It relates to the resource saturation when compared with the overall resource availability.
3. Time as a resource itself, consumed by the process. This is the lead time of a given process and is computed as the lapse from the moment all the inputs of the first activity of the process are available to the delivery of the output.

Throughout this research, we focus on delivery time, that is the time an investor waits between the time a request for information is placed and the time the information is received.

2.1.2 Time Based Competition

A review of the literature suggests that time-based competition has been widely recognized as a source of competitive advantage. Furthermore, in a growing number of industries, time-based competition has emerged as a competitive weapon. The literature does not lack examples where

researchers have documented case studies of how companies have benefited from time-based competition (Stalk 1988,1990; Bower 1988; Merills 1989; Smith 1991). Telecom, AT&T, Motorola, Xerox, Chrysler and Benetton, are only a few of the many companies that have experience with time-based competition.

In manufacturing, surveys have extensively demonstrated the advantages coming from time-based competition. (Griffin 1993; Tunc 1993) In the service industries, some interesting case studies in retailing, banking and financing have been documented (Stalk and Hout 1990; Blackburn 1991). In a book entitled "Time-Based Competition - The Next Battleground in American Manufacturing," Blackburn writes that time-based competition is based on the extension of the principles from Just-in-Time¹ and total quality management² to the entire manufacturing system, including new product development, logistics and, more importantly for our discussion, customer order management (Blackburn 1991).

2.1.3 Batch Processing

Blackburn (1992) suggests that white-collar processes are still managed by the methods of traditional batch manufacturing. Responding to a request for information can be categorized as a white-collar process. About white-collar processes, Blackburn (1992) writes:

Although we have made great strides in simplifying manufacturing by eliminating waste, reducing batch sizes, and smoothing flows toward JIT (or "lean production"), administrative processes still resemble the factories of the 1950s and 1960s. Offices today are managed by methods we have learned to avoid on the factory floor.

The results of Blackburn's (1992) studies may suggest a simple hypothesis for the lack of speed and the inefficiency of a REIT when processing a request for information made to it by an investor. Blackburn's work suggests that if a REIT is late in responding, the request for information could have been batched to fit into an administrative schedule, making the reply slow and inefficient (Blackburn 1992).

2.1.4 The Time Drivers

After reviewing the literature on time-based competition, the mechanisms which regulate total response time through its components were explored.

¹ Just in time focuses on eliminating waste in all steps from design to delivery and stresses close relationships with suppliers and final-product buyers. O'Neal, Charles and Bertrand, Kate. Developing A Winning J.I.T. Marketing Strategy. Englewood Cliffs, NJ: Prentice Hall, Inc., 1991.

² Total quality management focuses on developing marketing strategies and service practices that emphasize quality and customer needs. Schmidt, Warren H. and Finnigan, Jerome P. The Race Without A Finish Line. San Francisco, CA: Jossey-Bass Inc., 1992.

In this effort, 13 time-drivers, developed by Bartezzaghi, Spina and Verganti (1994) were identified. Referring to a generic process, Bartezzaghi, Spina and Verganti (1994) singled out the following time-drivers:

- *Execution Speed*: Indicator of resource productivity, it has been traditionally considered the most critical time-driver.
- *Uncertainty*: Level of the knowledge of the input, the transformation activities and the output of the process.
- *Variety*: Refers to product complexity, and to the mix of products which use the same resources of a process.
- *Flow Erratically*: Accounts for the degree of unevenness of demand related to the unevenness of the process.
- *Demand-Capacity Ratio*: Relates to the degree of resources saturation.
- *Defectiveness and Reliability*: Defectiveness is the probability the object does not conform to specifications; process reliability is the probability the object cannot be processed because resources are out of order.
- *Layout and Location*: This affects the time needed to handle materials and exchange information.
- *Overlapping*: Relates to the degree of parallelization of sequential activities.
- *Problem Solving and Leadership*: Refers to the characteristics of the decision-making process.
- *Connections*: This includes coordinating mechanisms, planning and control rules, and relations between lead times of different activities.
- *Learning*: Takes into consideration the experience learned in reducing the lead time.

2.1.5 The Psychology of Waiting

The research into the psychology of waiting revealed that little has been written about investors waiting for a request for information to be filled. However, the literature contains substantial writing about the psychology of waiting in lines. Maister (1985) identifies eight "propositions" relating to the psychology of waiting in lines":

1. Unoccupied time feels longer than occupied time.
2. Pre-process waits feel longer than in-process waits.
3. Anxiety makes waits feel longer.
4. Uncertain waits are longer than certain waits.

5. Unexplained waits are longer than explained waits.
6. Unfair waits are longer than equitable waits.
7. The more valuable the service, the longer people will wait.
8. Solo waiting feels longer than group waiting.

Waiting in line, for the purpose of this analysis, is assumed to be synonymous to waiting for a request for information to be satisfied. However, the purpose of this chapter is not designed or intended to investigate Maister's eight propositions. Nevertheless, Maister's propositions serve as evidence that response time to investor requests for information can't be taken lightly. (Maister 1985)

2.1.6 Response Model

When a process is to be re-engineered and time-related problems have to be managed, two levels of analysis are suggested to face time-related problems: an aggregate level, in order to understand the general dynamics of the process; and a detailed level which entails a thorough analysis of the time components in every activity of the process (Bartezzaghi, Spina and Verganti 1994).

Although, both in the literature and in practice, time has been widely recognized as a source of competitive advantage, I was unable to find any model of the response pattern to requests for information. However, modeling the response for a request for information closely parallels that of analyzing the response pattern to a mail survey (Basu, Basu and Batra 1995). Research on mail survey response implies that the response pattern for requests for information will be similar across campaigns (Cox 1966; Robinson and Agisim 1951) and suggests that the response pattern is S-shaped (Cox 1966).

2.2 Response Model

In accordance with Bartezzaghi, Spina and Verganti (1994), an analysis at the aggregate level was performed to provide a general description of the process that makes up a request for information. In Figure 3, the process that makes up a request for information is charted. Charting the components, at the aggregate level, is a critical first step in understanding how to make the processes faster and more productive. Furthermore, charting the chain of activities, allows for the identification of the following key response-time variables associated with delivery time:

- *Inquiry*: How long it takes to get the request for information to a REIT.
- *Processing Time*: How long it takes to process each request for information.
- *Reply*: How long it takes to get a reply into an independent investor's hands.

Having identified three variables of analysis, a mechanism to measure them needed to be established. Several techniques were evaluated. At the end, however, it was determined that nothing would provide a better insight into how quickly REITs respond to a request for information than to experience it first-hand.

The research into response time to a request for information was carried out by making a mass-mailing to the REIT community. For the purposes of this analysis, the REIT Community is comprised of 237 tax qualified public REITs listed in the 1996 REIT Handbook of the National Association of Real Estate Investment Trusts.

Impersonating an investor, a letter requesting an investor kit was mailed from Cambridge, Massachusetts to the headquarters of 237 publicly traded REITs dispersed throughout the United States. The goal of this phase of the research was to track the number of days it took individual REITs to respond. Figure 4 presents the geographic distribution of the data set used.

After an investor places a request for information in the mail, the time it takes to receive a reply from a REIT is the sum of (1) the time the postal service takes to deliver the inquiry to the REIT (*Inquiry*) and bring the reply back to the investor (*Reply*), and (2) the time that passes between the time a REIT receives the request for information and the mailing of the reply (*Processing Time*). Equation 1 depicts the response time calculation.

$$\text{Inquiry} + \text{Processing Time} + \text{Reply} = \text{Delivery Time} \quad (1)$$

In order to determine what constituted a prompt response, it was assumed that once a member of the responding population received the request for information, the act of placing the reply by mail should have occurred with a constant hazard rate of 2 days. This constant processing rate was assumed to be the same for the entire responding population. However, because mail generally takes a longer time to reach and return from a more distant location, it was assumed that the total delivery time would vary among the responding population. To reflect this variation, the responding population was divided into sub-populations so that the total delivery time would be the same for all members of a given sub-population.

Figure 3. Information Access

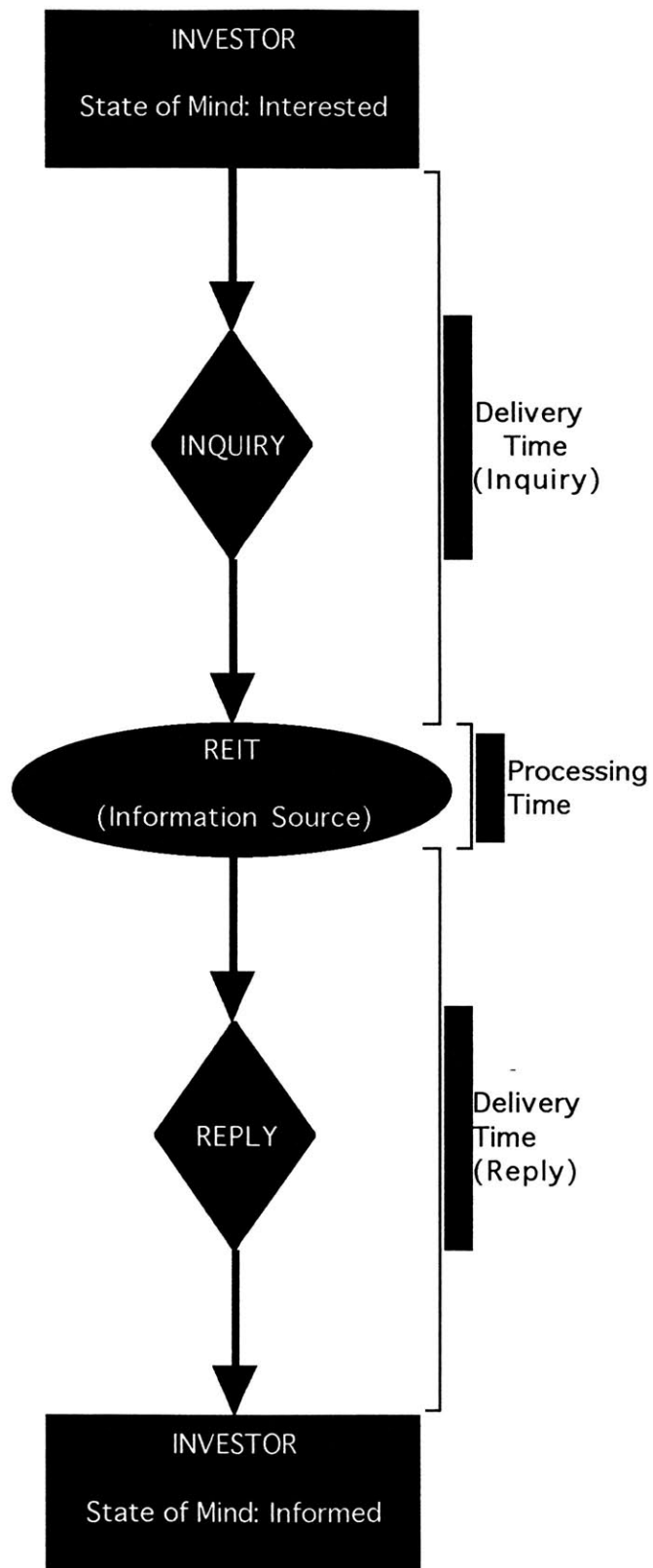
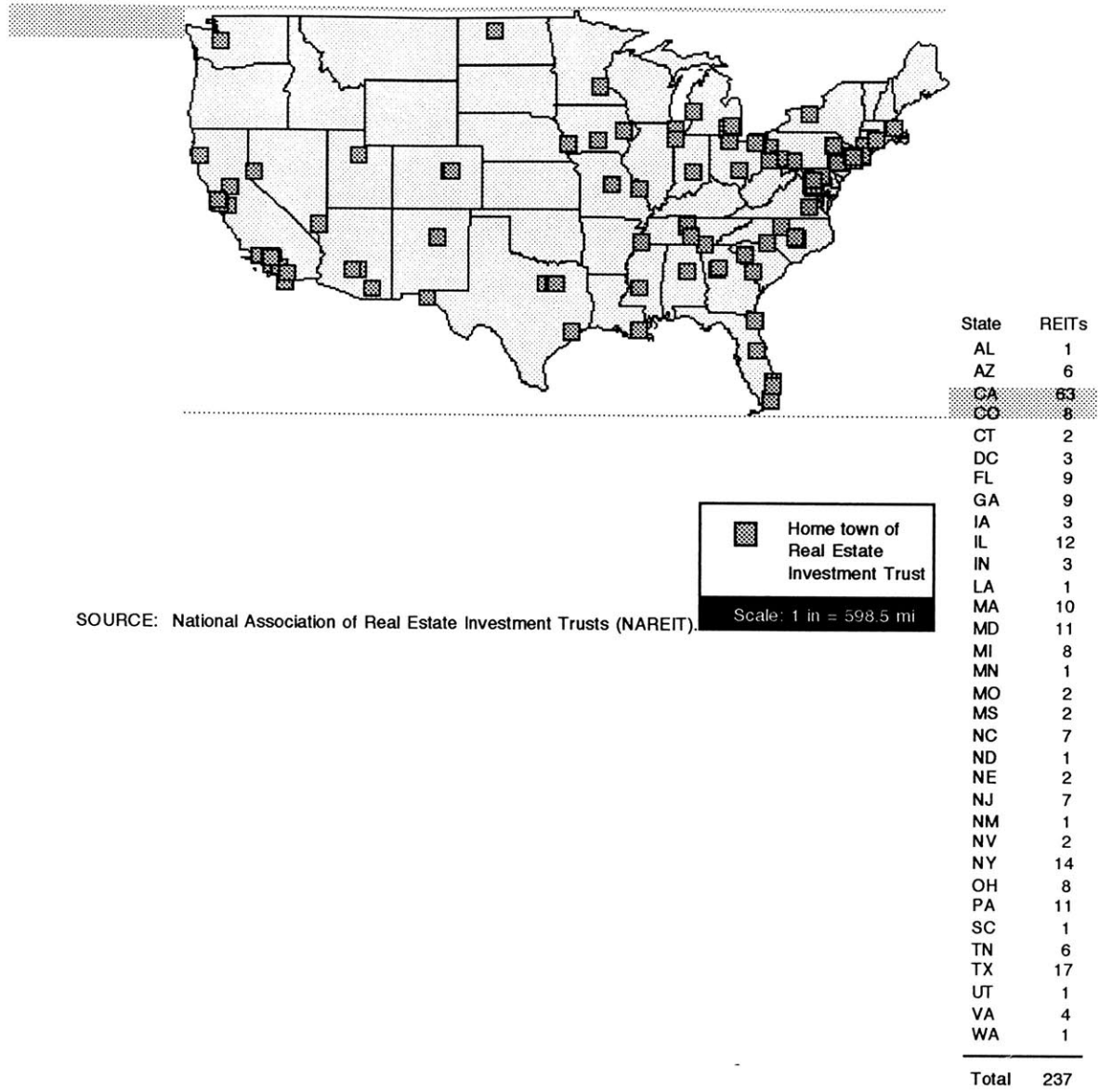


Figure 4. Geographic Distribution of Mailing Sample



SOURCE: National Association of Real Estate Investment Trusts (NAREIT).

The responding population was divided into three zones in order to match the United States Postal Service delivery standards. Currently, the United States Postal Service strives for next-day delivery within local areas, roughly 50-mile zones, two-day delivery within 600 miles, and three-day delivery outside that (Merline 1994). Of course, the expectation of receiving an investor kit from a REIT within the 50 mile zone begins earlier than for a REIT with a larger total mailing time. Figure 5 shows the geographic distribution, by city, of the three sub-populations using Cambridge, Massachusetts as the base.

It was assumed that REITs would not process requests for information during the weekend and that requests received during the weekend would be processed on Monday in conjunction with Monday's regular mail. Figure 6 shows the schedule that was used to determine on-time delivery by members of the three sub-populations. For analysis purposes, on-time response means a REIT responded within a reasonable amount of time, from the day the request for information was mailed. On-time response varied depending on which of the mailing zones a REIT belonged. A grace period for late responses was allowed and calculated for each region. For analysis purposes, REITs that responded late, and did so within the allowed grace period were classified as late responses. Finally, a waiting period of three weeks was set aside to wait for responses and accumulate data. Any REIT that responded after April 1, 1996, or after the three week waiting period, was classified as a non-response.

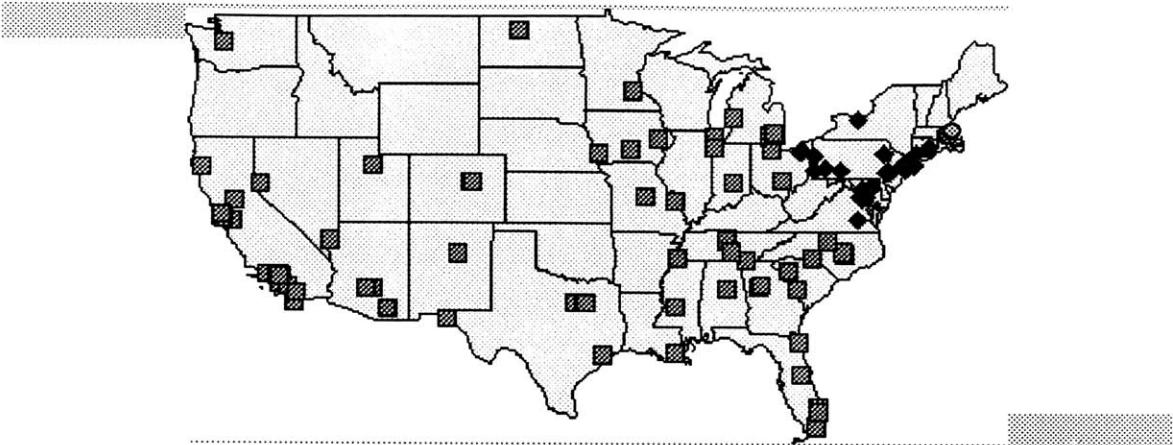
2.3 Results

2.3.1 Response Rate

For the purpose of this analysis, responses to a request for information from the 237 REITs that comprised the mailing sample were monitored for a period of three weeks, beginning March 11, 1996 and ending April 1, 1996. One hundred and fifty-four REITs, or 64.98% of the sampling population, responded within the established response time. Eight (80%) of the REITs in Zone 1, thirty-nine (67.2%) of the REITs in Zone 2, and one hundred and six (62.7%) of the REITs in Zone 3 responded to the request for information (See Figure 7 through Figure 9).

The visual examination of the response curve (i.e., the cumulative number of orders as a function of time) for each of the three zones revealed that the response curve had an S-shape, that is, the response rate first accelerated and then declined gradually to extinction (See Figure 10 through Figure 12). However, a visual examination of the response curve for each of the mailing zones revealed that responses to the request for information were delivered in three distinct batches (See Figure 13).

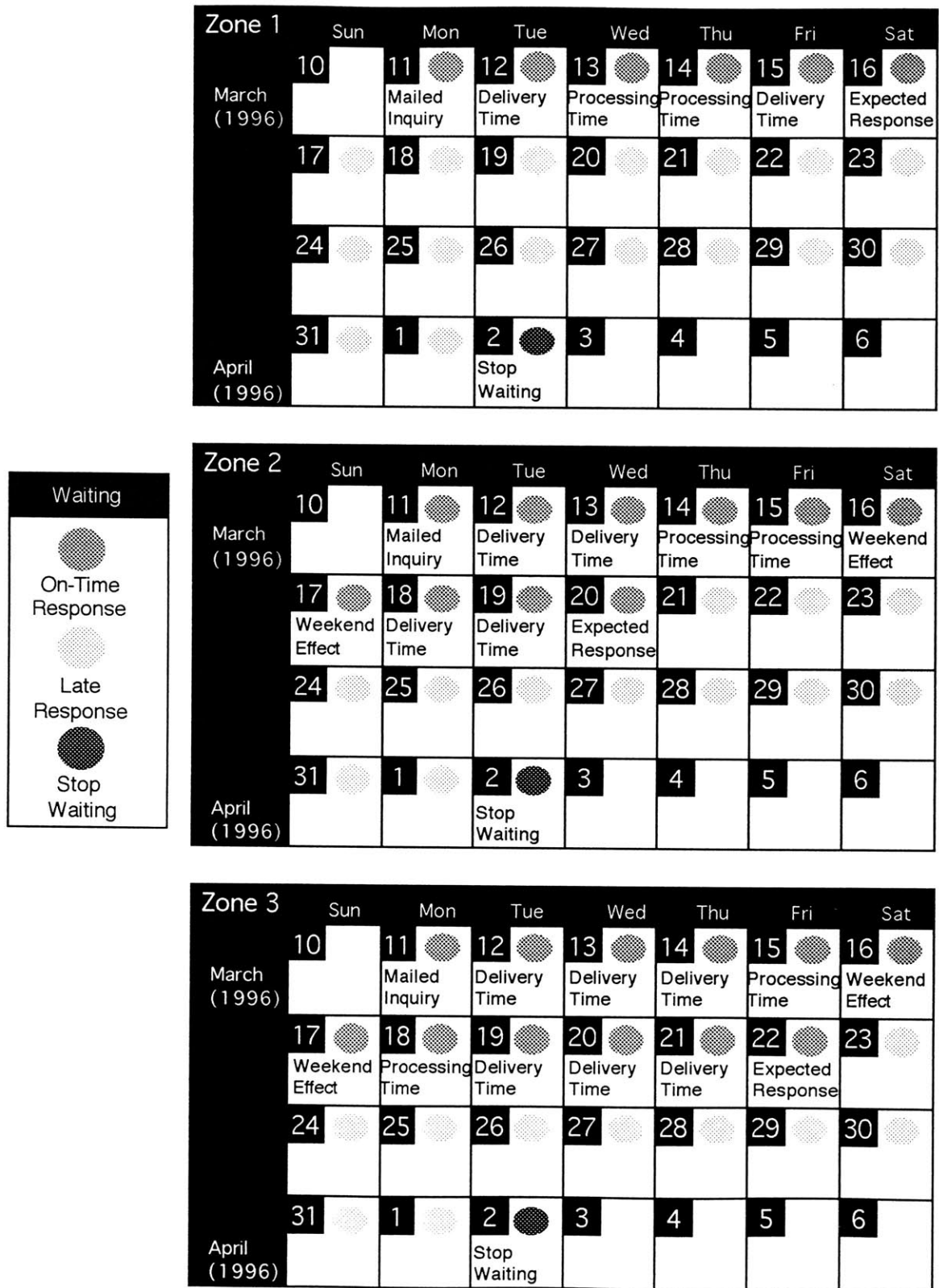
Figure 5. Mailing Zones



REITs	Count
Zone 1 (0-50 miles)	10
Zone 2 (51-600 miles)	58
Zone 3 (601-2500 miles)	169
Cambridge, MA	

Scale: 1 in = 598.5 mi
Sample Size (n) = 237

Figure 6. Response Schedule



A visual examination of the response curve for each of the mailing zones confirmed three distinct batches. This suggested that if a REIT is late in responding, the request for information could have been batched to fit into an administrative schedule, making the reply slow and inefficient. However, without conducting an analysis of how REITs are organized to respond to a reply for information, there was not enough evidence to confirm this hypothesis. At most, what could be deduced was that the United States Postal Service (USPS) processed the responses in batches. However, to confirm this hypothesis would also have required a study of the delivery process of the USPS, something which was also out of the bounds of this research.

2.3.1.1 Geographic Cluster

The response rate to a request for information was highest among REITs in the Midwest (85%). REITs in the south (66.7%) and in the east (68.6%), registered very similar response rates. However, REITs in the west, which was also the region in the sampling population with the largest number of REITs (82), recorded the lowest response rate, 50.0%. Table 10 summarizes the response rate for sub-samples constructed according to the four standard regions for real estate investment analysis used by NACREIF.

2.3.1.2 Property-Type Cluster

The response rate to a request for information was highest among three property types. Health, hotel, and residential REITs all surpassed the 70% response rate, reporting 72.2%, 77.8% and 75.0% respectively. Slightly lower was the response rate recorded by office, retail, and diversified REITs. Office REITs recorded a 65.0% response rate; retail REITs recorded a 64.3% response rate; and diversified REITs recorded a 65.2% response rate.

On the other hand, the response rate of industrial REITs, was low when compared to other property types. Industrial REITs with a 44.1% response rate, recorded the lowest response rate among the seven major property types. Those REITs, properly classified as "other", recorded a 57.14% response rate. Table 11 summarizes the response rate for sub-samples constructed according to property type.

2.3.1.3 Exchange Cluster

When the response rate for a request for information was divided by exchanges, the results proved to be mixed. REITs that traded in the New York Stock exchange registered the highest response rate among the sample population, 75.9%. However, REITs registered in the American Stock Exchange recorded a much lower response rate, 39.3%. REITs that traded in the OTC registered a 67.6% response rate. Table 12 summarizes the response rate for sub-samples constructed according to exchange.

Figure 7. Response Rate: Geographic Distribution of Zone 1



Figure 8. Response Rate: Geographic Distribution of Zone 2



Figure 9. Response Rate: Geographic Distribution of Zone 3



Figure 10. Response Curve: Zone 1

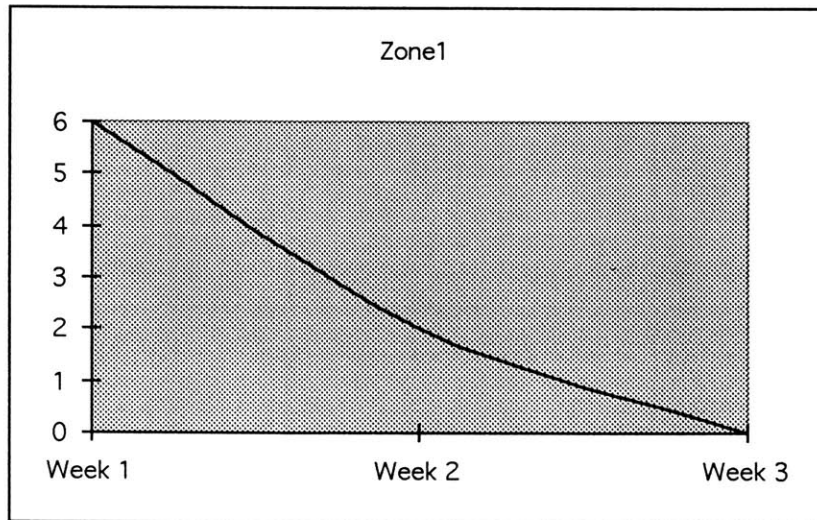
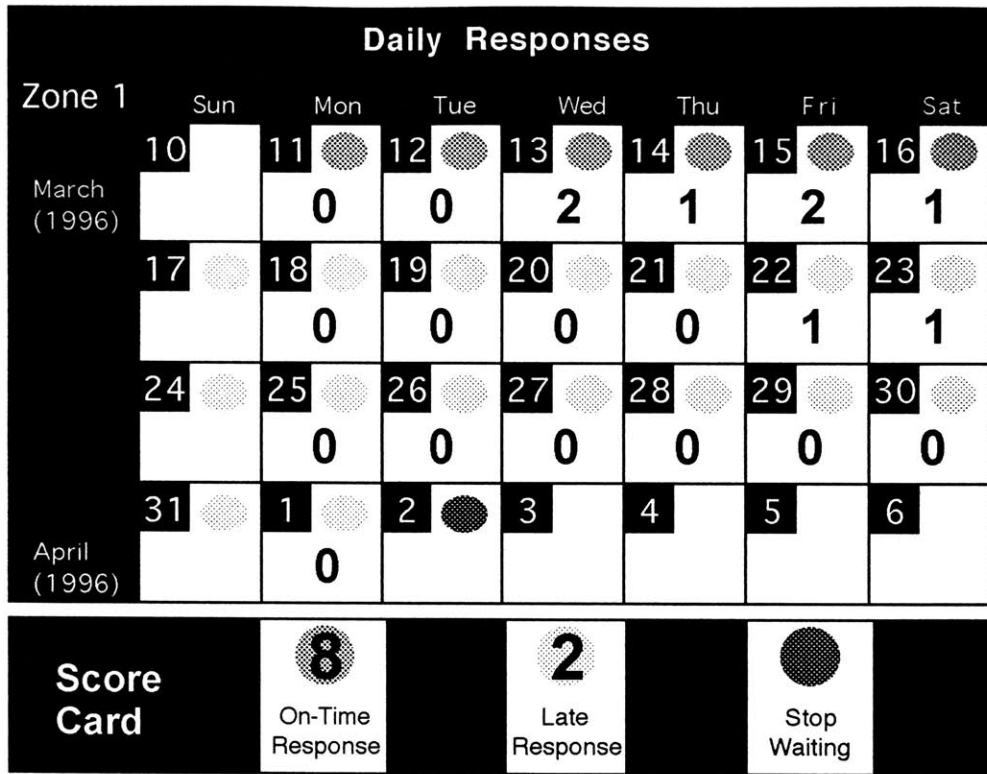


Figure 11. Response Curve: Zone 2

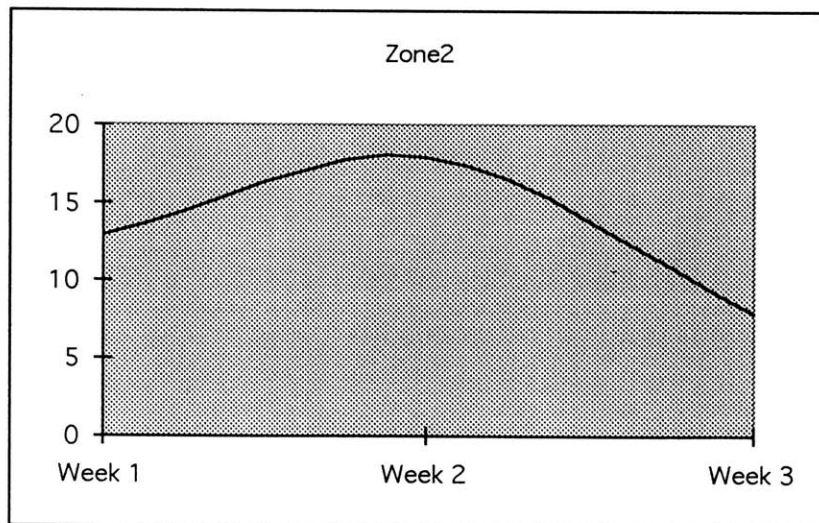
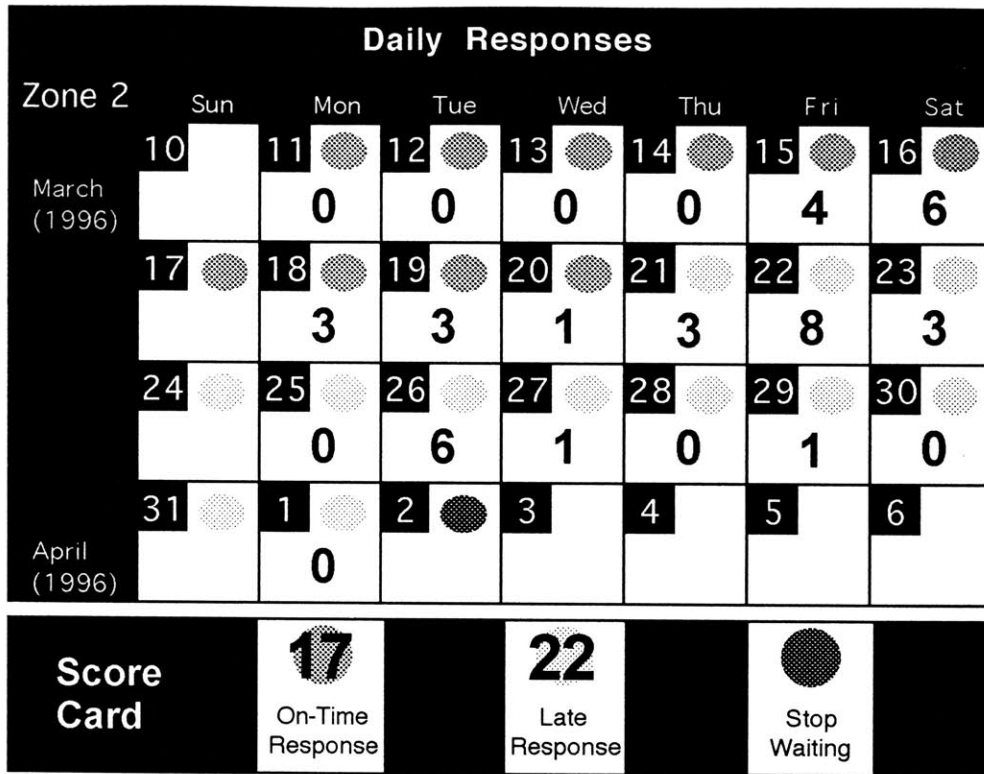


Figure 12. Response Curve: Zone 3

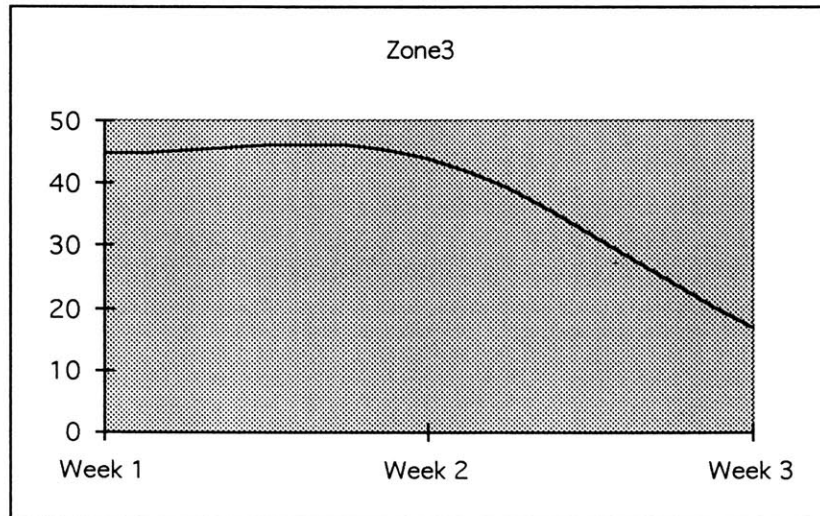
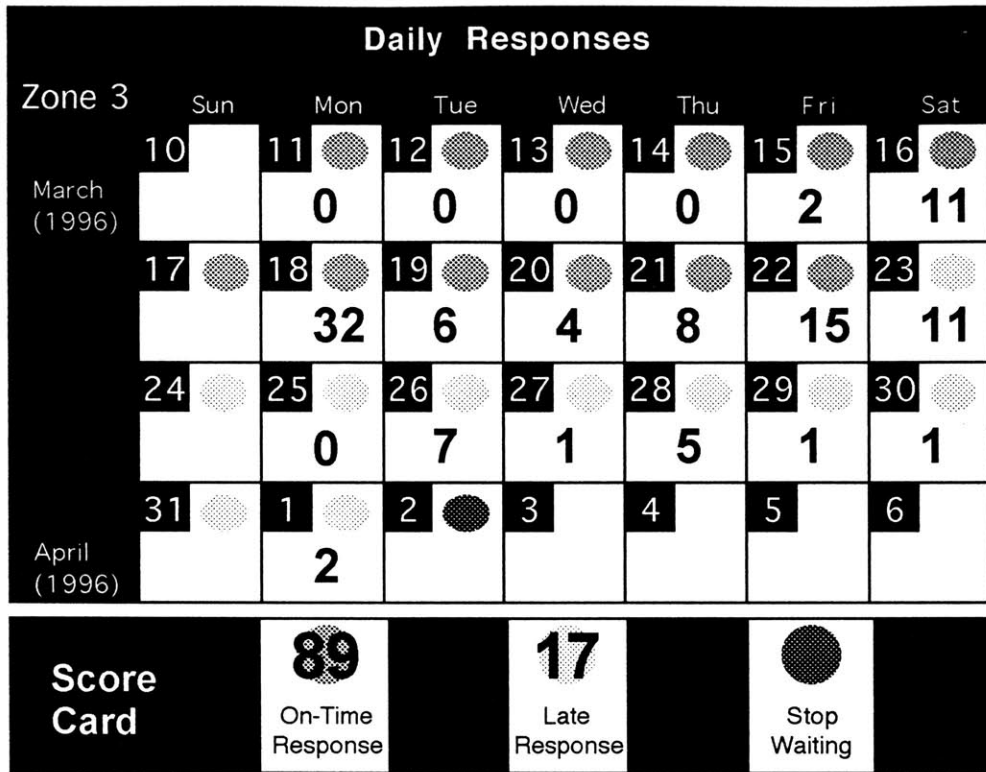


Figure 13. Response Curve: Batch Processing

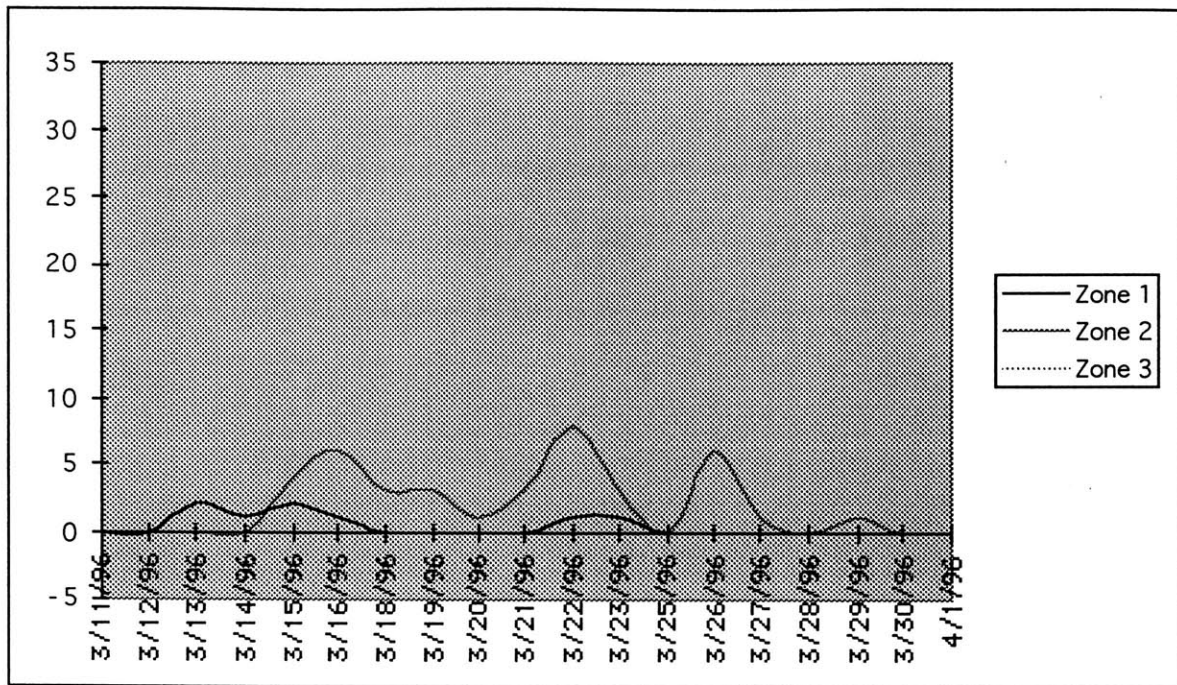


Table 10. Response Rate: Geographic Cluster


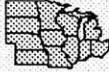


Region Response Rate	Responded (Total)	Responded (On-Time)	Responded (Late)	Did Not Respond
 70 WEST	50.0 (percent)	34.2 (percent)	15.9 (percent)	50.0 (percent)
 82 MIDWEST	85.0 (percent)	65.0 (percent)	20.0 (percent)	15.0 (percent)
 40 EAST	68.6 (percent)	35.7 (percent)	32.9 (percent)	31.4 (percent)
 45 SOUTH	66.7 (percent)	48.9 (percent)	17.8 (percent)	33.3 (percent)

Table 11. Response Rate: Property-Type Cluster








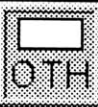
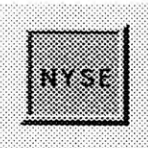
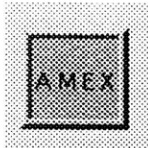
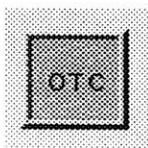
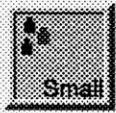



Property Type	Response Rate	Responded (Total)	Responded (On-Time)	Responded (Late)	Did Not Respond
 RET	Retail (56)	64.3 (percent)	42.9 (percent)	21.4 (percent)	35.7 (percent)
 RES	Residential (56)	75.0 (percent)	51.8 (percent)	23.2 (percent)	25.0 (percent)
 OFF	Office (20)	65.0 (percent)	45.0 (percent)	20.0 (percent)	35.0 (percent)
 HTL	Hotel (9)	77.8 (percent)	44.5 (percent)	33.3 (percent)	22.2 (percent)
 IND	Industrial (34)	44.1 (percent)	29.4 (percent)	14.7 (percent)	55.9 (percent)
 HEA	Health (18)	72.2 (percent)	55.6 (percent)	16.7 (percent)	27.8 (percent)
 DIV	Diversified (23)	65.2 (percent)	43.5 (percent)	21.7 (percent)	34.8 (percent)
 OTH	Other (21)	57.1 (percent)	23.8 (percent)	33.3 (percent)	42.9 (percent)

Table 12. Response Rate: Exchange Cluster

Region Response Rate	Responded (Total)	Responded (On-Time)	Responded (Late)	Did Not Respond
	75.9 (percent)	50.4 (percent)	25.6 (percent)	24.1 (percent)
	39.3 (percent)	21.3 (percent)	18.0 (percent)	60.7 (percent)
	67.6 (percent)	51.4 (percent)	16.2 (percent)	32.4 (percent)

New York Stock Exchange, NYSE (137)
 American Stock Exchange, AMEX (61)
 Over-The-Counter Market, OTC (37)

Table 13. Response Rate: Employee Cluster

Employee Pool Response Rate	Responded (Total)	Responded (On-Time)	Responded (Late)	Did Not Respond
 Small	51.4 (percent)	35.1 (percent)	16.2 (percent)	48.7 (percent)
 Medium	80.6 (percent)	52.8 (percent)	27.8 (percent)	19.4 (percent)
 Large	77.8 (percent)	53.3 (percent)	24.4 (percent)	22.2 (percent)
 Mega	79.0 (percent)	52.6 (percent)	26.3 (percent)	21.1 (percent)

Small (74) 1 Employee to 25 Employees
 Medium (36) 26 Employees to 100 Employees
 Large (45) 101 Employees to 500
 Mega (19) > 500 Employees

2.3.1.4 Size Cluster

To tabulate the effect of size to a request for information, REITs were classified according to the size of their employee base (number of full time employees) and the size of their investor base (number of shareholders). REITs with a small employee base had a much lower response rate than medium, large and mega REITs. REITs with a small employee base had a 51.4% response rate, while REITs with a medium, large, and mega employee base reported a fairly high response rate. REITs with a medium employee base reported an 80.6% response rate; REITs with a large employee base reported a 77.8% response rate; and mega REITs reported a 79.0% response rate. Table 13 summarizes the response rate for sub-samples constructed according to the size of a REIT's employee base.

REITs with a small investor base and REITs with a large investor base reported fairly even response rates. Although the REITs with an investor base of more than 5,000 shareholders had the best response rate, 75.0%, REIT's with less than 500 registered shareholders reported a response rate of 71.2%. Medium REITs, with an investor base between 500 and 5,000 shareholders, reported a response rate of 55.1%. Table 14 summarizes the response rate for sub-samples constructed according to the size of a REIT's investor base.

2.3.2 On-Time Response Rate

In this section, the results for the on-time response rate are tabulated. For tabulation purposes, on-time response means a REIT responded within a reasonable amount of time from the day the request for information was mailed. As explained in previous sections, the amount of time allowed for each REIT to respond on-time varied for each REIT and was directly related to the mailing zone in which the REIT was headquartered.

2.3.2.1 Geographic Cluster

Focusing on on-time response rates by geographic region as opposed to the response rate of the population as a whole, did not affect the gap of 16 percentage points that existed between respondents in the midwest and the next region with the closest response rate. In other words, the midwest remained the best performing region when we compared the response rate and the on-time response rate. However, while the east was the second region with the highest response rate (68.6%), followed closely by the south (66.7%), when only on-time performance was reviewed, the south's on-time response rate, 48.8%, was higher than that of the east's, 35.7%. Furthermore, where only 1 out of every 2 REITs in the west responded to the request for information, those that did respond did so with a good on-time performance rate - 34.2% of the REITs in the west responded on-time.

2.3.2.2 Property-Type Cluster

The results of the on-time response rate constructed according to property type displayed a more even distribution than did the response rate of the sample population as a whole. In other words, when we compared the on-time performance record of REITs according to property types, almost all REITs in the seven major property type classifications registered fairly similar on-time response rates. Missing from this list, were industrial REITs, which continued to have a lower response rate in comparison to the rest of the sample. The on-time response rate of industrial REITs was 29.4%, more than 25 percentage points lower than the on-time response rates for health REITs.

Table 15 summarizes the distribution of the sample population by property-type and geographic region. Table 16 summarizes the distribution of the on-time responses by property-type and geographic region.

2.3.2.3 Exchange Cluster

The on-time response rate constructed according to exchange showed no difference from the pattern established from the results of the total response rate. However REITs trading in the Over-The-Counter Markets slightly edged out those REITs trading in the NYSE. While 50.4% of the REITs trading on the New York Stock Exchange responded on-time to a request for information, 51.4% of the REITs trading on the Over-The-Counter Markets responded on-time. In the case of AMEX, REITs trading on this exchange continued to have a lower response rate; only 21.3% of the REITs trading on AMEX responded on-time.

Table 17 summarizes the distribution of the sample population by property-type and exchange. Table 18 summarizes the distribution of the on-time responses by property-type and exchange.









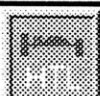




2.3.2.4 Size Clusters

The on-time response rate constructed according to size provided some interesting results when the size of a REIT's investor base was considered. REIT's with a large investor base had the highest response rate. However, REIT's with a small investor base recorded the highest on-time response rate, 53.0%.

Table 19 summarizes the distribution of the sample population by property-type and number of shareholders. Table 20 summarizes the distribution of the on-time responses by property-type and number of shareholders.














The on-time response rate constructed according to the size of the employee base maintained the same pattern established for the response rate as a whole. Small REITs, or REITs with less than 25 full time employees, continued to have lower response rates. Only 35.1% of small REIT's

Table 15. Sample Distribution: Property-Type/Geographic Region

Property Type	Region	 WEST	 MIDWEST	 EAST	 SOUTH	 TOTAL
 Retail		4.2	6.3	9.7	3.4	23.6%
 Residential		5.9	4.2	7.6	5.9	23.6%
 Office		1.3	1.3	3.8	2.1	8.4%
 Hotel		0.4	0.0	1.7	2.1	3.8%
 Industrial		11.0	1.3	1.7	0.4	14.4%
 Health		3.0	1.3	1.3	1.7	7.6%
 Diversified		3.0	1.7	2.5	2.5	9.7%
 Other		5.9	0.8	1.3	0.8	8.9%
West (70) Midwest (82) East (40) South (45)		34.6%	16.9%	29.5%	19.0%	100.0%

SOURCE: National Association of Real Estate Investment Trusts (NAREIT).

Table 16. On-Time Distribution: Property-Type/Geographic Region

Property Type	Region	 WEST	 MIDWEST	 EAST	 SOUTH	 TOTAL
 RET	Retail	4.0	8.9	8.0	3.0	23.9%
 RES	Residential	5.9	7.9	7.0	7.9	28.7%
 OFF	Office	1.0	2.0	3.0	3.0	9.0%
 HTL	Hotel	0.0	0.0	0.0	4.0	4.0%
 INC	Industrial	7.0	2.0	0.0	1.0	10.0%
 HEA	Health	4.0	2.0	3.0	1.0	10.0%
 DIV	Diversified	4.0	2.0	3.0	1.0	10.0%
 OTH	Other	2.0	1.0	1.0	1.0	5.0%
West (25) Midwest (28) East (26) South (22)		27.9%	25.8%	25.0%	21.9%	100.0%

responded on-time, compared to 52.8%, 53.3% and 52.6% for medium, large and mega REITs respectively.

Table 21 summarizes the distribution of the sample population by property-type and number of employees. Table 22 summarizes the distribution of the on-time responses by property-type and number of employees.

2.4 Conclusion

It was suggested that before it could be denied that REITs had fast response times to a request for information, a formal evaluation needed to be performed. To accomplish this, it was determined that the best way to learn if REIT's responded on-time to a request for information, was to go through the process itself. A mailing was made, requesting an investor kit, to a sample population of 237 REITs.

The response rates to a request for information, among the separate sub-populations created for this analysis, were highest among:

- *Geographic Cluster:* REITs in the midwest (85%).
- *Property-Type Cluster:* Hotel (77.8%), Residential (75.0%), and Health (72.2%) REITs.
- *Exchange Cluster:* REITs trading in the New York Stock Exchange (75.9%).
- *Employee Cluster:* REITs with more than 25 employees but less than 100 (80.6%), REITs with more than 500 employees (79.0%) and REITs with more than 100 employees but less than 500 (77.8%).
- *Investor Cluster:* REITs with more than 5,000 shareholders (75%) or less than 500 (71.2%)

The on-time response rates to a request for information, among the separate sub-populations created for this analysis, were highest among:

- *Geographic Cluster:* REITs in the midwest (65%).
- *Property-Type Cluster:* Health (55.6%) and Residential (51.8%).
- *Exchange Cluster:* REITs trading in the Over-The-Counter Markets (51.4%).
- *Employee Cluster:* REITs with more than 25 employees but less than 100 (52.8%), REITs with more than 500 employees (52.6%) and REITs with more than 100 employees but less than 500 (53.3%).
- *Investor Cluster:* REITs with less than 500 shareholders (53.0%).


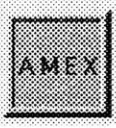
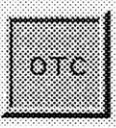





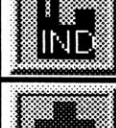
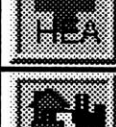
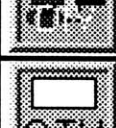

In conclusion, only one out of every two REITs responded on-time to a request for information. This suggests that at least 50% of the REITs that made up the sample can improve their response time to an investor's request for information. The results presented in this chapter serve as a reference to those REITs who decide to begin to apply the concepts of time-based disclosure.

In the next chapter, we review the results of a survey where we asked REITs three time-related questions:

1. Do REIT investors receive the information they need about your REIT when they need it?
2. Do REIT investors get timely information about your REIT?
3. Can REIT investors get new information about your REIT quickly, easily, and inexpensively?

In the next chapter, the results obtained from the survey are compared to the results obtained through the observational study conducted in this chapter. Only by comparing facts to perceptions and identifying a discrepancy, if there is one, can we begin to suggest alternatives.


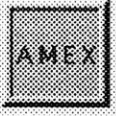
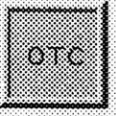






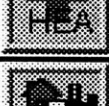
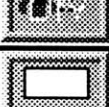

Table 17. Sample Distribution: Property-Type/Exchange

Property Type	Exchange				 TOTAL
	Retail 		17.9	2.6	3.4
Residential 		17.0	4.3	2.6	28.8%
Office 		5.1	1.3	1.3	7.7%
Hotel 		1.0	0.0	3.0	3.8%
Industrial 		3.0	10.6	0.9	14.5%
Health 		6.4	0.4	0.9	7.7%
Diversified 		4.3	3.0	2.6	9.8%
Other 		3.8	3.8	1.3	8.9%
		58.3%	26.0%	15.7%	100.0%

New York Stock Exchange, NYSE (137)
 American Stock Exchange, AMEX (61)
 Over-The-Counter Market, OTC (37)

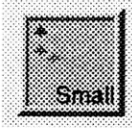
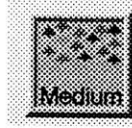



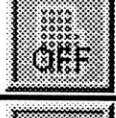
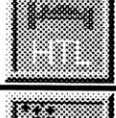

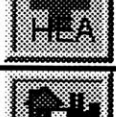
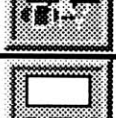

SOURCE: National Association of Real Estate Investment Trusts (NAREIT).

Table 18. On-Time Distribution: Property-Type/Exchange

Exchange					 TOTAL
Property Type					
Retail		18.8	2.0	3.0	23.8%
Residential		23.8	2.0	3.0	28.7%
Office		5.0	1.0	3.0	9.0%
Hotel		0.0	0.0	4.0	4.0%
Industrial		5.0	4.0	1.0	9.9%
Health		8.9	1.0	0.0	9.9%
Diversified		5.0	1.0	4.0	9.0%
Other		2.0	2.0	1.0	5.0%
		68.3%	12.9%	18.1%	100.0%

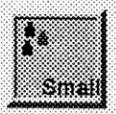
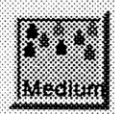

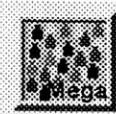









New York Stock Exchange, NYSE (69)
 American Stock Exchange, AMEX (13)
 Over-The-Counter Market, OTC (19)

Table 20. On-Time Distribution: Property-Type/Shareholders

Property Type	Investor Base	Investor Base			TOTAL
		 Small	 Medium	 Large	
Retail		10.5	11.6	1.2	23.3%
Residential		12.8	10.5	2.3	25.6%
Office		5.8	3.5	0.0	9.0%
Hotel		2.3	2.3	0.0	5.0%
Industrial		3.5	1.2	7.0	11.6%
Health		1.2	9.3	0.0	10.5%
Diversified		3.5	5.8	1.2	10.5%
Other		1.2	1.2	2.3	5.0%
		40.7%	45.3%	14.0%	100.0%

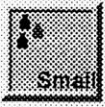


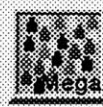









Small (35) 1 Shareholder to 500 Shareholder
 Medium (39) 501 Shareholders to 5000 Shareholders
 Large (12) > 5000 Shareholders

Table 21. Sample Distribution: Property-Type/Employees

Employee Pool	Region	 Small	 Medium	 Large	 Mega	 TOTAL
	Retail	7.5	10.3	6.3	2.3	26.4%
	Residential	4.6	2.3	11.5	6.9	25.3%
	Office	1.2	1.7	3.5	0.0	6.3%
	Hotel	5.8	0.0	0.6	0.0	3.5%
	Industrial	10.3	4.0	2.3	1.2	17.8%
	Health	5.8	0.6	0.6	0.6	7.5%
	Diversified	6.3	0.6	1.2	0.0	8.1%
	Other	4.0	1.2	0.0	0.0	5.2%
		42.5%	20.7%	25.9%	10.9%	100.0%
		Small (74)	1 Employee to	25 Employees		
		Medium (36)	26 Employees to	100 Employees		
		Large (45)	101 Employees to	500		
		Mega (19)	> 500 Employees			

SOURCE: National Association of Real Estate Investment Trusts (NAREIT).

Table 22. On-Time Distribution: Property-Type/Employees

Employee Pool	Region	 Small	 Medium	 Large	 Mega	 TOTAL
	Retail	6.3	10.1	7.6	2.5	26.6%
	Residential	3.8	2.5	15.2	6.3	27.9%
	Office	0.0	2.5	3.8	0.0	6.3%
	Hotel	3.8	0.0	0.0	0.0	4.0%
	Industrial	1.3	6.3	2.5	2.5	12.7%
	Health	6.3	1.3	0.0	1.3	8.9%
	Diversified	8.9	0.0	1.3	0.0	10.1%
	Other	2.5	1.3	0.0	0.0	3.9%
		32.9%	24.1%	30.4%	12.7%	100.0%
		Small (26)	1 Employee to	25 Employees		
		Medium (19)	26 Employees to	100 Employees		
		Large (24)	101 Employees to	500		
		Mega (10)	> 500 Employees			

3. A Survey of the REIT Industry

In this chapter, we discuss the results of a mail survey of a nationwide sample of real estate investment trusts (REITs). The sample was generated from a listing of the members of the National Association of Real Estate Investment Trusts (NAREIT). A mail questionnaire was chosen because of the geographical dispersion of the respondents. A survey questionnaire with a personalized letter requesting their participation was mailed to 237 potential informants. The initial mailing was followed by a personalized reminder and a second copy of the questionnaire one month after the first mailing. The effective potential sample was reduced to 219 potential informants, because 18 informants either indicated that they were not suitable informants (they had merged or liquidated) or could not be reached because of incorrect addresses. A total of 84 usable responses were obtained for a response rate of approximately 38.3%; response rates for individual property types were 28% for health REITs (n = 5), 22% for hotel REITs (n = 2), 30% for industrial REITs (n = 20); 55% for office REITs (n = 11), 44% for residential REITs (n = 24), 38% for retail REITs (n = 21), 40% for REITs classified as "other" (n = 7), and 32% for diversified REITs (n = 7).

3.1 Survey Design

The purpose of this part of the research was to assess the attitudes of REITs regarding the information they provide their investors. Specifically, we sought to document the perception of REITs related to two categories of attitudes: (1) Time-based disclosure; and (2) Information used as a competitive tool. In addition the survey, sought to document the presence of REITs on the WWW.

3.1.1 Questionnaire

The questionnaire used for this part of the research contained several questions regarding time, the Internet, and information used as a competitive tool. Childers and Ferrell (1979) demonstrated that the perceived length of a questionnaire significantly affects the level of response to a mail survey. For this reason, the survey was designed to fit on an 8 1/2 inches by 11 inches sheet of paper. Furthermore, the number of questions on the questionnaire was limited to twelve because it was assumed that most respondents would allocate only a limited amount of time for filling out and returning the questionnaire. Finally, the space on the top portion of the questionnaire was used for instructions, describing the importance of completing and returning the survey.

3.1.1.1 Format of the Questionnaire

Following a review of the time-based competition and competitive advantage literature and discussions with managers of on-line information systems, a mail questionnaire was developed. The questionnaire included twelve questions. The questions were based on issues and concerns surrounding strategic information management (Garrigue 1990). The first part of the questionnaire was designed to elicit opinions from respondents; ten questions were included in this part of the questionnaire. The second part of the questionnaire was designed to elicit facts from respondents; two questions were included in this part of the questionnaire. The number of factual questions was limited to ensure that the responding population would be able to answer all questions.

The format of the questions was limited to closed questions. Since the depth of the information that was sought did not require lengthy responses, closed questions were preferred over open questions. Open questions allow respondents to answer in their own words and at any length; closed questions restrict respondents to selecting from the provided answers. Again, a closed question format was used to ensure that the responding population would be able to answer all questions.

The format of the questions restricted the responses to structured responses. Structured responses were preferred so respondents could more reliably and quickly answer the questions, and so the answers could also be more reliably and quickly interpreted. For all of the opinion questions, respondents were asked to respond to the question with a simple "yes" or "no". If a respondent did not know the answer to the question, a third category properly classified as "don't know" was included.

A checklist was used to respond to opinion questions. The advantage of a checklist is that the three responses allowed respondents to think about the process in the researcher's terms; consequently, the resulting data was more easily analyzed and interpreted.

A decision was made to include one global question at the end of the opinion questions. This question asked respondents if their REIT used information as a competitive tool. The decision to put this question last was based on the concept of self-generated validity. It was assumed that before responding to the last question, many of the respondents would have already responded to the previous nine questions. Therefore, the global evaluation at the end of the opinion questions should reflect the specific evaluations.

3.1.1.2 Questions

The questionnaire developed included twelve questions. The topics covered by the questions fell into one of the following three topics:

- 1. Time-based Disclosure: Three opinion questions.
- 2. Information used as a competitive tool: Six opinion questions
- 3. The Internet: Two factual questions and one opinion question.

3.1.1.2.1 *Time-Based Disclosure*

As information means power, the speed at which a business can obtain information, get it to a customer or move it between development sites may determine its success or failure (Lin 1994). As a result, it was assumed that information has a value that is associated with time. As time goes by, the value of information diminishes until it becomes worthless (Garrigue 1990). Three of the questions developed were associated with time:

- 1. Do REIT investors receive the information they need about your REIT when they need it?

It was assumed that information that is late is useless (Garrigue 1990). If an investor has to wait three weeks to get the information requested, the information can be of little use when it arrives.

- 5. Do REIT investors receive timely information about your REIT?

It was assumed that information that is old is also useless (Garrigue 1990). If we are in the middle of April 1996 and an investor receives a 1994 annual report, the information can be of little use even if the information is accurate.

- 7. Do REIT investors get new information about your REIT quickly, easily, and inexpensively?

The information contained in a REIT's investor kit may trigger the need for more information. This information might be the last thing that an investor needs before investing. It was assumed that new information should be easily available without cumbersome procedures (Garrigue 1990).

To test the reliability of the respondents' answers question one and question seven were considered to be the same question reworded differently. The goal was to try to solicit the same response on both questions.

One possible way to determine validity is to check respondents' answers to certain questions against factual data gathered from other sources. Fortunately, we can use the results of the observational study conducted in chapter two. The on-time response rates from chapter two can be compared to respondents' answers to question one and question seven.

3.1.1.2.2 *Information as a Competitive Tool*

Much of the technology exists for REITs to provide information to their investors electronically. However, providing the data to investors is the

easy part. Deciding what information, to whom, where and when is where the challenge rests (Garrigue 1990). As a result, respondents were asked three specific questions to try to assess their perception of the information their investors have about their REITs:

- 2. Do REIT investors have sufficient information about your REIT?
- 3. Do REIT investors get consistent information about your REIT?
- 4. Do REIT investors get accurate information about your REIT?

The key to using information competitively means usually being able to reduce the amount of data, weeding out the irrelevant and the redundant (Wilder 1989). In other words, a REIT that uses information as a competitive tool has systems in place that guarantee that its investors have sufficient, consistent, and accurate information about their REIT. The last question on the check-list, question ten, specifically asked respondents if their REIT used information as a competitive tool. For reliability purposes, respondents' answers to question ten were cross-checked with the answers respondents provided for questions two, three and four.

Finally, investors were asked two more questions, one pertaining to costs, and the second to investor satisfaction:

- 8. Is the information you provide your investors managed economically?
- 9. Are your investors satisfied with the information they are receiving about your REIT?

3.1.1.2.3 The Internet

Three of the questions included in the questionnaire were Internet related questions. One of the questions was an opinion question and asked respondents if their investors could easily combine diverse pieces of information about their REIT. This question was meant to address the opportunity that the World Wide Web (WWW) provides to form associated links between information that is stored in remotely accessible locations (Shiffer 1995a).

Finally, the two factual questions required respondents to answer if they had some form of connection to the Internet. The first factual question asked respondents if they had a public e-mail address; the second factual question asked respondents if they had a homepage on the WWW.

3.1.2 Mailing

Data was sought to identify key informants in each publicly traded REIT. The goal was to identify two key informants: The chief executive officer (CEO); and the chief financial officer (CFO). These individuals were identified from a list of prospective participants compiled from the official 1996 Directory

of NAREIT members. This directory contained the names and addresses of 237 publicly traded REITs and in most cases the names of the two key informants. The questionnaire was mailed to the CEO in each REIT. When this individual could not be identified, the questionnaire was addressed to the CFO.

One copy of the questionnaire was sent to each of the 237 REITs with the incentive that if the questionnaire was returned within an established deadline, that the REIT would be included in a prototype information system being developed at MIT for the REIT community. Respondents were requested to respond as a representative of their respective REIT. To ensure accurate responses, respondents were promised complete confidentiality.

One month after the initial mailing, having received 30 responses, it was concluded that the responding population had little interest in the prototype information system being developed at MIT. Therefore, it did not serve as an incentive to attach it to the questionnaire. Furthermore, after discussions with the managers of several REITs, and after analyzing who had responded to the initial mailing, it was concluded that questionnaires addressed to the CEO or CFO were being handed down the chain of command to the directors of investor relations.

A reminder letter with a second copy of the questionnaire was faxed to REITs who did not respond to the first request. However, the second copy of the questionnaire was faxed to the office of the director or vice president of investor relations. An analysis of the data among questionnaires addressed to the CEO, the CFO and the director of investor relations revealed no difference between respondent REITs from the first and second questionnaires. Thus, it was concluded that non-response bias was not a concern in this part of the research and that the results are generalizable to the REIT community at large.

3.1.3 Response Rate

The original mailing and the follow up fax to non-respondents produced 101 (43 percent) responses representing 5 health REITs, 2 hotel REITs, 20 industrial REITs, 11 office REITs, 25 residential REITs, 21 retail REITs, 9 REITs classified as "other", and 8 diversified REITs. A comparison of responses received after the first mailing and the follow up fax revealed no response bias.

The response rate was calculated by dividing the number of surveys returned by the number of surveys mailed. Surveys that were undeliverable because the potential respondent had merged with another REIT or had been liquidated were removed from the total number of surveys mailed out. In addition, some of the surveys were returned blank because they were not addressed to a valid address.

There was one survey returned by the post office because the intended respondent had moved without leaving a forwarding address, 3 surveys were returned blank for no known reason, 1 survey was returned blank because the REIT had merged with another REIT, and 13 surveys were deemed unusable because the REITs had merged with another REIT. The overall response rate was 38.3% (84 surveys returned / 219 surveys sent). The response rates for the 8 major property types ranged from 22% for hotel REITs to 55% for office REITs.

3.1.4 Statistical Procedures

Responses were coded and entered into a database for computer analysis. Analysis included the use of descriptive statistics in the form of frequency and cross-tabulation tables.

3.2 Sample Population

In many respects, the sample is representative of the REIT industry, particularly concerning property type distribution. Most respondents were either residential (29%) or retail (25%) REITs, employed more than 100 employees but less than 500 (36%), had a small investor base of less than 500 shareholders (44%), and their stock traded in the New York Stock Exchange (79%). Geographically, the sample was evenly distributed. Of the respondents, 24% were headquartered in the midwest, 26% in the west, 23% in the south, and 27% in the east. (See Figure 14 and Figure 15)

3.3 Results

*Man will occasionally
stumble over the truth,
but most times he will
pick himself up and
carry on.*

Winston Churchill

To assess the response quality of the survey, an important aspect of response quality that was examined was response completeness (Childers & Skinner 1985). Response completeness refers to the percentage of total questions on the survey actually completed by the respondent population. A calculation was conducted to determine the percentage of respondents who answered all twelve questions on the questionnaire. For this test, there was no concern placed with the answer the respondent gave, only that a response was provided.

Figure 14. Survey: Sample Population by Geographic Cluster

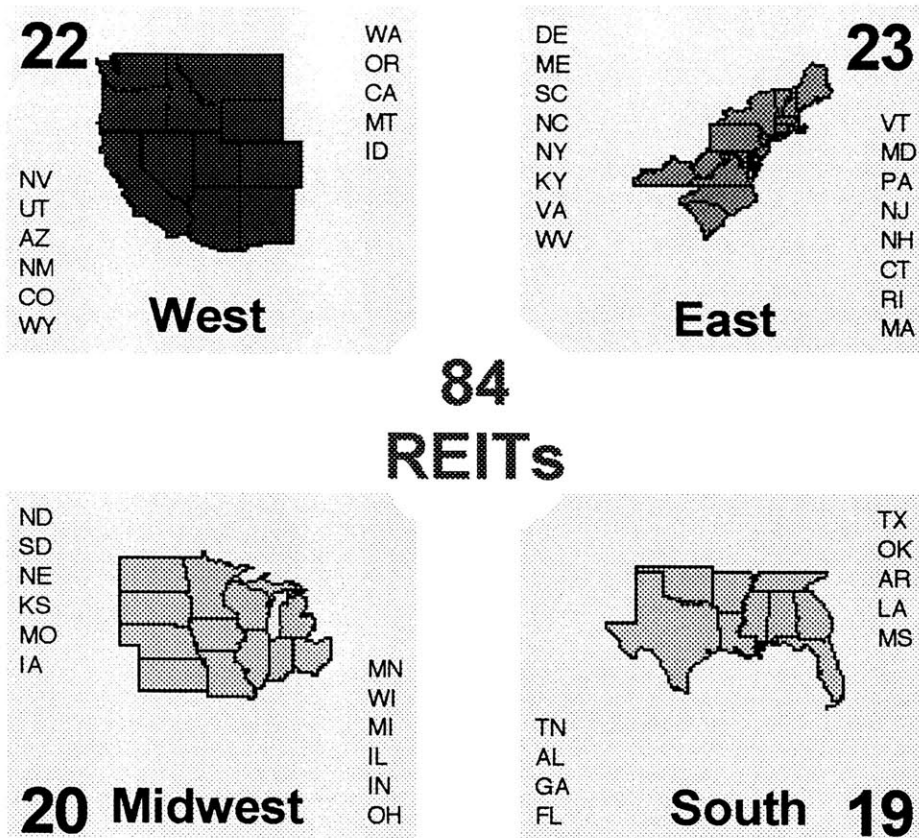
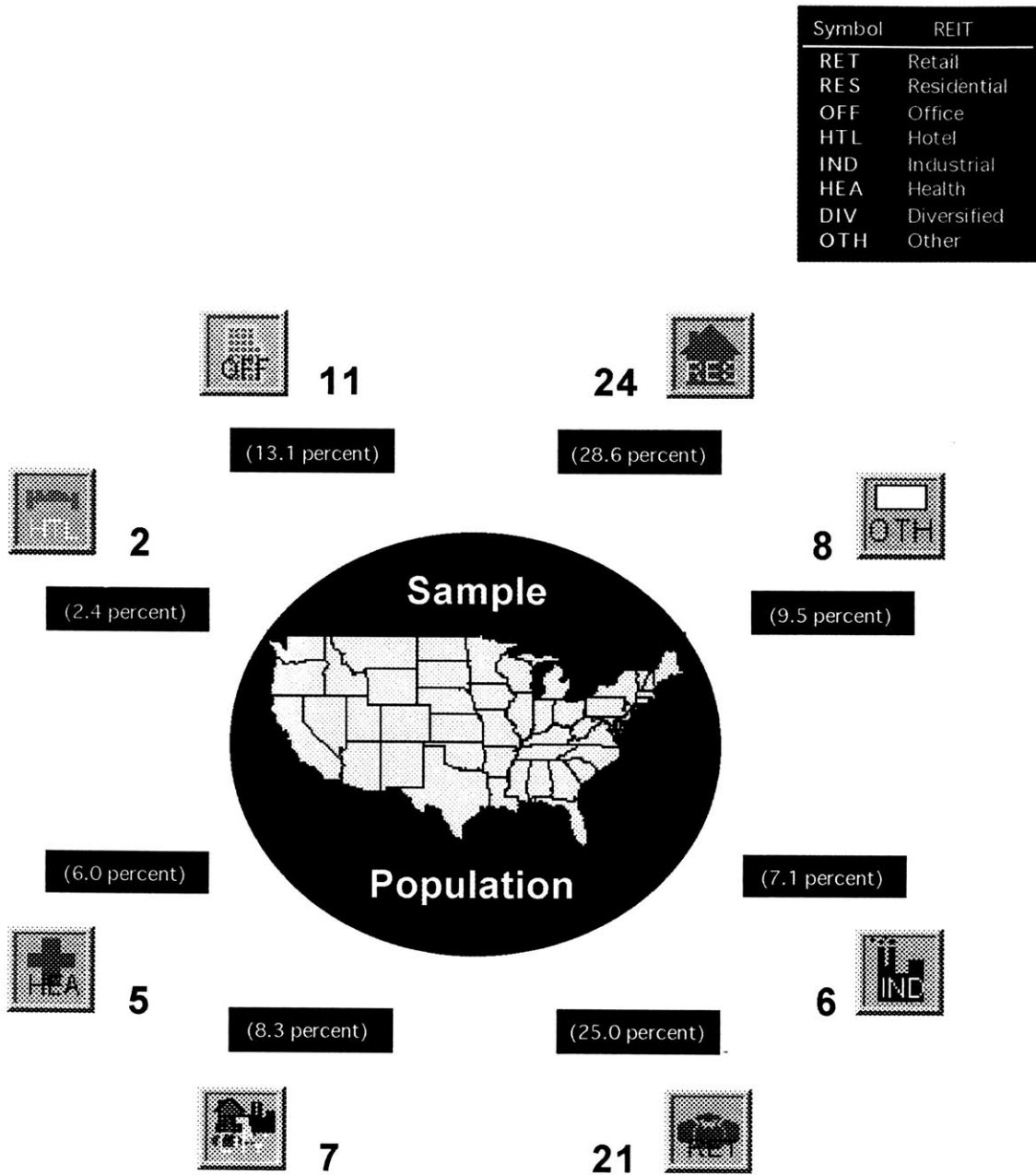


Figure 15. Survey: Sample Population by Property-Type Cluster



To evaluate response completeness three questions (Question 1, 10 and 11) were selected for analysis. Each of the questions selected were important to the three coverage areas of the questionnaire (time-based disclosure, using information as a competitive tool, and the Internet). Again, a calculation was conducted to determine the percentage of respondents who answered all three of these questions. For this test, there was no concern placed with the answers the respondents gave, only that a response was provided.

Not all respondents thought, the questionnaire was asking questions to the right constituency. For example, one respondent indicated, "perhaps the investor should be asked rather than the REIT. That would eliminate the need to speculate on what the investors think." Another respondent suggested, "you are asking these questions to the wrong constituency. While we believe that we are providing accurate, timely, sufficient data to our investors, the only way to find this out for sure is to ask them." Some of the respondents wanted some clarification and wrote on their questionnaire if the questions referred to institutional or individual investors. Another respondent indicated, "information is extremely important. I believe few people know much about REITs. I hope to target these people and provide information to them."

Overall, 95% of respondents completed the entire questionnaire, and 100% provided answers to the three selected questions. This suggests that the questionnaire provides important information regarding REITs disclosure practices.

Tables 23 through 34 include the response counts and percentages by type of response.

3.3.1 Time-Based Disclosure

Question one solicited the most number of side comments on the margin of the questionnaire. One respondent wrote that it was up to investors to determine if they received the information they needed when they needed it. Some of the other comments included:

- *Question:* Do REIT investors receive the information they need about your REIT when they need it?
- *Comment:* "To some extent. Probably not as timely as we would wish."
- *Comment:* "This question must be answered 'mostly', 'as far as we know', or 'if at all possible.' Certainly, not a question we could answer unequivocally."
- *Comment:* "For the most part. We hope to improve the timeliness of our mailings. Phone calls are answered ASAP."

Table 23. Time-Based Disclosure: On-Time Response (A)

Do REIT investors receive the information they need about your REIT when they need it?		
Response	Responses	Percentage of Total
1 Yes	69	82.1
2 No	4	4.8
3 Don't Know	11	13.1
No Response	0	0.0
Total	84	100.0
Complete Responses = 84 Response Rate = 100%		
Mean = 1.31 (NR row factored out)		

Table 24. Information as a Competitive Tool: Sufficient Information

Do REIT investors have sufficient information about your REIT?		
Response	Responses	Percentage of Total
1 Yes	61	72.6
2 No	7	8.3
3 Don't Know	15	17.9
No Response	1	1.2
Total	84	100.0

Complete Responses = 83 Response Rate = 98.8%
Mean = 1.45 (NR row factored out)

Table 25. Information as a Competitive Tool: Consistent Information

Do REIT investors get consistent information about your REIT?		
Response	Responses	Percentage of Total
1 Yes	71	84.5
2 No	8	9.5
3 Don't Know	5	6.0
No Response	0	0.0
Total	84	100.0

Complete Responses = 84 Response Rate = 100.0%
Mean = 1.21 (NR row factored out)

Table 26. Information as a Competitive Tool: Accurate Information

Do REIT investors always receive accurate information about your REIT?		
Response	Responses	Percentage of Total
1 Yes	63	75.0
2 No	7	8.3
3 Don't Know	13	15.5
No Response	1	1.2
Total	84	100.0
Complete Responses = 83 Response Rate = 98.8%		
Mean = 1.40 (NR row factored out)		

Table 27. Time-Based Disclosure: Timely Information

Do REIT investors receive timely information about your REIT?		
Response	Responses	Percentage of Total
1 Yes	68	81.0
2 No	5	6.0
3 Don't Know	9	10.7
No Response	2	2.4
Total	84	100.0

Complete Responses = 82 Response Rate = 97.6%
Mean = 1.28 (NR row factored out)

Table 28. Internet: Combining Information

Can REIT investors easily combine diverse pieces of information about your REIT?		
Response	Responses	Percentage of Total
1 Yes	29	34.5
2 No	12	14.3
3 Don't Know	42	50.0
No Response	1	1.2
Total	84	100.0

Complete Responses = 83 Response Rate = 98.8%
Mean = 2.16 (NR row factored out)

Table 29. Time-Based Disclosure: On-Time Response (B)

Do REIT investors investors get new information about your REIT quickly, easily and inexpensively?		
Response	Responses	Percentage of Total
1 Yes	69	82.1
2 No	8	9.5
3 Don't Know	7	8.3
No Response	0	0.0
Total	84	100.0

Complete Responses = 84 Response Rate = 100.0%
Mean = 1.26 (NR row factored out)

Table 30. Information as a Competitive Tool: Economically Managed

Is the information you provide your investors managed economically?		
Response	Responses	Percentage of Total
1 Yes	71	84.5
2 No	4	4.8
3 Don't Know	8	9.5
No Response	1	1.2
Total	84	100.0

Complete Responses = 83 Response Rate = 98.8%
Mean = 1.24 (NR row factored out)

Table 31. Information as a Competitive Tool: Investor Satisfaction

Are your investors satisfied with the information they are receiving about your REIT?		
Response	Responses	Percentage of Total
1 Yes	50	59.5
2 No	0	0.0
3 Don't Know	32	38.1
No Response	2	2.4
Total	84	100.0
Complete Responses = 82 Response Rate = 97.6%		
Mean = 1.78 (NR row factored out)		

Table 32. Information as a Competitive Tool

Does your REIT use information as a competitive tool?		
Response	Responses	Percentage of Total
1 Yes	60	71.4
2 No	15	17.9
3 Don't Know	9	10.7
No Response	0	0.0
Total	84	100.0
Complete Responses = 84 Response Rate = 100.0%		
Mean = 1.39 (NR row factored out)		

Table 33. Internet: E-mail

Does your REIT have a public email address?		
Response	Responses	Percentage of Total
1 Yes	22	26.2
2 In Progress	3	3.6
3 No	59	70.2
No Response	0	0.0
Total	84	100.0

Complete Responses = 84 Response Rate = 100.0%
Mean = 2.44 (NR row factored out)

Table 34. Internet: World Wide Web

Does your REIT have a homepage on the World Wide Web?		
Response	Responses	Percentage of Total
1 Yes	17	20.2
2 In Progress	9	10.7
3 No	58	69.0
No Response	0	0.0
Total	84	100.0

Complete Responses = 84 Response Rate = 100.0%
Mean = 2.49 (NR row factored out)

When asked if REIT investors receive the information they need about their REIT when they need it, sixty nine REITs (82.1%) indicated their investors did. Furthermore, when asked if REIT investors can get new information about their REIT quickly, easily and inexpensively, sixty nine REITs (82.1%) indicated they could. Interestingly enough, one REIT responded, "yes, via our web page." A second REIT indicated, "we plan to improve this area. We just got e-mail for investor correspondence."

To the question, "Do REIT investors receive timely information about your REIT?" sixty eight (81%) REITs responded their investor do. One REIT indicated, "we continuously strive to provide more information in an expeditious way." However, a second REIT responded, "the correct answer for us is yes - if they are on our direct mail or fax lists. For "street name" investors, the answer is "no" as quarterly information must pass through the brokerage house which then (later) forwards it."

3.3.2 Information as a Competitive Tool

When asked if their REIT used information as a competitive tool, sixty (71.4%) REITs said they did. When asked if their investors have sufficient information about their REIT, sixty one (72.6%) thought they did. However, one respondent indicated, "it is available, whether they have it or not is not known." When asked if their investors get consistent information about their REIT, seventy one REITs (84.5%) said their investor did. One responded indicated, "if on our mailing list." Finally, when asked if their investors received accurate information about their REIT, sixty three (75%) respondents thought they did. One respondent indicated, "if we are supplying the information."

To the question, "Is the information you provide your investors managed economically?" seventy one REITs (84.5) said they did. One responded indicated, "we do a good job, but probably could do a better job." A second responded clarified, "if you mean, are we providing information to our investors as economically as possible (i.e., third class mail - or even fax over mailing), the answer is 'yes'. If your question is 'Do we concern ourselves with a cost factor over a communication factor?' - the answer is 'no'."

Finally, investors were asked if they thought their investors were satisfied with the information they were receiving about their REIT. Fifty respondents (59.5%) said they thought they were, but thirty-two (38.1%) responded that they did not know. One respondent indicated, "we intend to conduct a survey."

3.3.3 The Internet

A very small percentage of the responding population had access to the Internet. Only twenty two (26.2%) of the respondents said they had a public e-mail address. Furthermore, only seventeen (20.2%) said they had a Web

page on the WWW. Interestingly enough, when respondents were asked if their investors could easily combine diverse pieces of information about their REIT, forty-two of them (50%) said they did not know, and twelve (14.3%) said they could not.

3.4 Analysis

3.4.1 Time-Based Disclosure

3.4.1.1 Reliability Check

Cross-tabulation of the questionnaire's data revealed that sixty-six (78.6%) of the respondents answered question one and question seven the same way. These two questions had been carefully placed on the questionnaire to check the reliability of the respondents' answers. Both questions were the same question worded differently. Question one asked respondents if their investors receive the information they need about their REIT when they need it. On the other hand, question seven asked respondents if their investors could get new information about their REIT quickly, easily, and inexpensively.

It was assumed that providing investors information "quickly, easily, and inexpensively" was equivalent to providing investors "the information they need when they need it". Furthermore, it was assumed that the only difference between question one and question seven was between providing information to investors in general and providing new information to investors. Whether a REIT is providing information in general or new information, it was assumed that the process to get this information to an investor should not vary.

That sixty-six (78.6%) REITs answered both questions the same way confirms the reliability of the respondents answers, as far as to say that we believe they were answering the questionnaire truthfully. The slight disparity that was reported can be attributed to the weaknesses inherent in close end questions. For example, there is a chance that a respondent thought their REIT provided new information to an investor quickly and easily but not inexpensively. Sixty-six of the respondents answered question one and question seven the same way. Sixty-one of the respondents who believed their REIT provided information to investors when they need it, also believed their REIT managed their information economically. On the other hand, only sixty of the respondents who believed their REIT provided information to an investor quickly, easily and *inexpensively*, also believed their REIT managed their information *economically*. Therefore, the difference that can be attributed to cost is one investor. Unfortunately, aside from calling each REIT, we had no way of testing which REITs felt it was not easy to provide new information to investors and based on that provided different answers

to questions one and seven. Obviously, some of the difference can and should be attributed to non-truthful answers.

3.4.1.2 Reality Check

Combining the respondents answers to the results obtained from the observational study in chapter two allowed us to make a reality check of what respondents perceived and what was actually true. Sixty-nine (82.1%) REITs believed they provided information to investors when they need it. However, only 48 (57.1%) responded on-time to the request for information of the surrogate investor in chapter two; Fourteen (16.7%) responded late.

Cross tabulation of the respondents' answers with the results obtained from the observational study in chapter two revealed that only 42 (50%) of the respondents who thought they provided information to their investors when they need it actually responded on-time to the request for information.

Sixty-eight of the respondents believed investors receive timely information about their REIT. However, cross tabulation of the respondents' answers with the results obtained from the observational study revealed that 51 (60.7%) of the REITs to whom a request for information was made during March of 1996 continued to include a 1994 annual report in their investor kit. Furthermore, thirteen (15.5%) did not include any quarterly reports and only 27 (32.1%) included quarterly reports and a copy of recent 10-Q forms.

3.4.2 Information as a Competitive Tool

Sixty (71.4%) REITs reported they used information as a competitive tool. Cross tabulation of the respondents' answers reveal that:

- Forty-three (71.7%) of the respondents who use information as a competitive tool also thought their investors had sufficient information about their REIT.
- Fifty-one (85%) of the respondents who use information as a competitive tool also thought their investor got consistent information about their REIT.
- Forty-five (75%) of the respondents who use information as a competitive tool also thought their investors received accurate information about their REIT.

3.4.3 The Internet

It was not surprising to discover the small presence of respondents on the WWW. However, there are several things we can learn from the respondents who have homepages on the Web. Cross-tabulation of the respondents answers revealed that:

- Forty-one percent (7) of the respondents who had homepages on the WWW believed their investors could combine diverse pieces of information about their REIT. On the other hand, only thirty-one percent (18) of the respondents who did not have a homepage, and who indicated they were not planning to have one in the near future believed their investors could combine diverse pieces of information about their REIT.
- Fifty-nine percent (10) of the REITs who had homepages on the WWW responded on-time to a request for information. On the other hand, only fifty-five percent (52) of the respondents who did not have a homepage, and who indicated they were not planning to have one in the near future responded on-time.
- Sixty five percent (11) of the respondents who had homepages on the WWW believed their investors were satisfied with the information they receive about their REIT. On the other hand, only fifty-seven percent (33) of the respondents who did not have a homepage, and who indicated they were not planning to have one in the near future believed their investors were satisfied with the information they received about their REIT.
- Eighty-two percent (14) of the respondents who had homepages on the WWW indicated they used information as a competitive tool. On the other hand, only sixty-seven percent (39) of the respondents who did not have a homepage, and who indicated they were not planning to have one in the near future indicated they used information as a competitive tool.

3.5 Summary of the Symptoms

The important thing is
not to stop questioning.

Albert Einstein

The patient has to believe something is wrong before paying a visit to a doctor. Clearly, the results of the survey in this chapter contradict some of the facts from the observational study in chapter two. REITs do not always respond on-time to a request for information, although they think they do.

If a response for information arrives late, it might not always be a REIT's fault. However, speed in internally processing investors' demands for information is not enough. Investors care only about the total cycle time from start to finish - from when their need for information arises to when their request for information has been satisfied. Investors are not impressed by short processing cycles on the part of a REIT if the postal service makes response time slow. Time consumed anywhere in the process from the request for information on through to processing and delivery of that information is

equally valuable. Therefore, time squeezed from any part of the process has the same value to investors. A REIT using time-based disclosure, REITs must shrink the entire process by time compressing activities that lie both inside and outside a REIT's walls.

I believe strongly that we have to develop a sufficiently dynamic and reliable process for anticipating and responding to investor's needs. A system needs to be developed that ensures that high quality information is distributed on a timely basis to investors. The observational study conducted in chapter two and the survey conducted in this chapter have shown that there is a lot of room for improvement among REITs. Fortunately, where there is a will there is a way. Sixty (71.4%%) of the respondents say they manage information as a competitive tool. If that is the case, the next four chapters are meant for them.

4. On-line Access to REIT Data

At about the same time that REITs became an attractive vehicle to invest in real estate, new advances in technology gave birth to the wired investor, computer literate investors with access to the Internet. The proliferation of communication-enabled personal computers, the availability of intuitive graphical software and wide accessibility (See Figure 16) to an increasingly robust network infrastructure, have allowed widespread access to the Internet at a rapidly declining cost³ and have facilitated the emergence of the World-Wide Web (WWW), a client/server system of hyper-linked, multimedia databases. The WWW enables wired investors to easily access information on the Internet and enables REITs to offer textual, graphical and other information directly to wired investors. Wired investors can easily access information on the Web using client software known as "Web" browsers.

4.1 Literature Review

If you don't stay ahead of the game, you will be playing catch-up to your competition.

Deloitte Haskins-Sells

Lin (1994) identified two areas, each of which is central to the ability of information technology to change how REITs manage their information:

- *Communications*: The Internet offers the potential to carry four key classes of network traffic: (1) voice; (2) video; (3) image; and (4) data. On the Internet, time and space almost have no meaning.
- *Availability/Accessibility*. The Internet allows rapid access to large quantities of information. The Internet permits much lower costs and faster response time. In the future, investors will place a premium on the ability to access and use information.

³ Large established companies with a nationwide presence and the resources and experience to keep things running smoothly, offer unlimited monthly access for under \$20. The three are AT&T, which is offering Internet access via its new WorldNet service to AT&T customers for \$19.95; MCI, which is offering a similar service for \$19.95, whether you are an MCI customer or not; and CompuServe, who offers unlimited time on line for \$17.95 a month. (For a more detailed discussion of Internet access providers see: Akst, Daniel. "Access to Net for under \$20." The Boston Globe (Boston) 11 April 11 1996: p. 55.)

Behind the hype surrounding the Internet, the Internet and the WWW offer REITs ways to improve communications with investors and to make information available and accessible to investors when and where they need it. Time-based disclosure creates a new pressure for REITs to review and challenge the ways they have served investors' needs in the past (Lin 1994).

If the marketplace is where REITs have been accustomed to building relationships with investors, then the parallel universe of marketspace is where the relationships of the future will be made. Sviokla and Rayport (1994) contend that REITs can distill their essence into three components: content (the actual product or service produced), context (the physical or intellectual environment in which the product or service is offered), and infrastructure (the system of production and distribution for the product or service).

In the conventional marketplace, the three components are almost always inextricably intertwined. However, in the electronic marketspace, these components are disaggregated, creating new opportunities to add value. The marketspace is an enhancement of the marketplace (Sviokla and Rayport 1994). Those REITs that think about how they can create value in the marketspace may be the industry leaders of tomorrow. Those that do not address the possibilities risk falling behind in a rapidly changing business environment.

4.2 A Network of Wired Investors

I never think of the
future - it comes soon
enough.

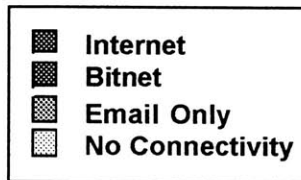
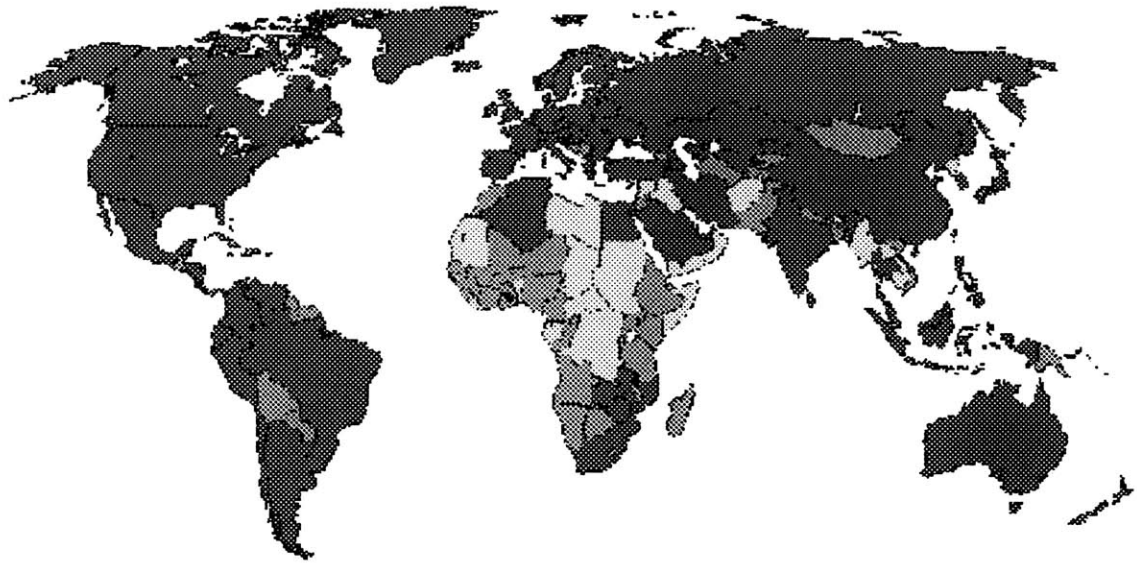
Albert Einstein

4.2.1 The Internet

The Internet, which has become a household word, is having an impact on the ways in which information is shared and used. This network of networks now connects approximately 2.5 million computers and the number of machine hosts and users continues to grow exponentially, with a new computer network coming on-line every ten minutes (Leiner 1994).

Williams (1995) argues that the Internet shares many similarities with the telephone, the television, and the postal service. However, he argues that the Internet is superior for three reasons:

Figure 16. International Connectivity as of June 15, 1995



SOURCE: Larry Landweber and the Internet Society.

1. The Internet is superior to the telephone because it allows wired REITs to send and receive a greater amount and variety of information to many more wired investors in a given time.
2. The Internet is superior to the television because it allows wired REITs to write, produce and direct their own programs for broadcast, and at the same time gives wired investors a wider variety of channels to tune into.
3. The Internet is superior to the postal service because it is faster and considerably less expensive to send and receive messages to and from virtually unlimited addresses around the world (Williams 1995).

Many tools have been developed to help wire investors navigate the Internet and share information:

- FTP (File Transfer Protocol): Used by wired investors to send and receive files between two computers connected to the Internet.
- Telnet: Used by wired investors for remote logins to other computers, such as "bulletin boards".
- Network News: Network News is made up of thousands of "news groups" on different subjects. Wired investors can send and receive messages within a related topic.
- Electronic Mail: Lets wired investors exchange electronic messages with other wired investors with access to the Internet.
- Gopher: Developed at the University of Minnesota, it permits wired investors to retrieve and view information via a hierarchical system of menus leading directly (or through sub-menus) to documents, usually text but other types of files as well.
- World-Wide Web (WWW): The WWW is comprised of hypertext documents that connect to other documents and files via hyperlinks. A hypertext document can consist of text, images, graphics, and sounds, and it can be transparently linked to other local or remote hypertext documents. These links call up related documents and files with a click of a mouse button. Through the "Web", and a "browser" such as Mosaic or Netscape, a wired investor can send as well as receive pictures (still, animated, video), sound, and multi-media presentations. The result is a virtual library, in the sense that wire investors can readily retrieve data and information from widely scattered sites without needing to know where the documents reside physically.

Although the Internet can be accessed with several tools, the Web has received proportionally more attention because of its capacity to use sound, animation, multiple fonts, extensive graphics, color, and hidden layers of additional information. Furthermore, the WWW requires no programming experience nor mastery of extensive software commands in order to use it. As a result, on the Web the potential exists for a REIT to promote itself in imaginative new ways.

Every investor is different and requires different material to make an investment decision. Furthermore, an annual report and many of the disclosure documents used by a REIT are used for more than investment purposes. A REIT often provides annual reports to its employees, its tenants and to a large community of non-investors. One advantage of the Web is that it allows a REIT to customize its Web site and include sections for the experienced investor, the amateur investor, shareholders, tenants, community members and all REIT employees.

Another important advantage of the Web is that it provides interactivity. Interactive communication may be needed for a potential investor to understand a REIT. A member of the investor relations staff can convey to potential investors many aspects of a REIT over the telephone, but on average a single member of the investor relations department can communicate with only one investor at a time. Some REITs use conference calls to reach a wider audience. However, when a REIT speaks to one person, it customizes information to fit one investor's needs. On the other hand, when a REIT holds a conference call with a group of investors, it needs to provide a consistent message with very little opportunity to address the different levels of expertise represented in the group.

Of the tools listed above, a Gopher site, an ftp site, a Web site or e-mail allows REITs the potential to provide wired investors information. Gopher sites are hierarchical and rely heavily on menus and text. Therefore, customization is limited. FTP sites allow wire investors to send and receive files. However, interactivity is limited. Finally, if a REIT only has e-mail, a REIT would have to respond individually to each electronic request for information. The WWW is the only Internet tool with the potential to customize information, be interactive, and eliminate having to have someone individually respond to each electronic request for information.

4.2.2 The Audience

Already countless organizations are exploring how they can best use the Internet, in particular the WWW, for business applications such as marketing, supply chain management, public relations, customer support, product sales, and electronic data interchange (See Table 35 and Table 36).

In recent years, the Web has experienced a rapid increase in the number of individual users. An October 1995 CommerceNet/Nielsen Internet Demographics Survey⁴ indicated that there was a sizable base of Internet

⁴ During the month of October 1995, CommerceNet, in partnership with Nielsen Media Research, conducted an Internet Demographics Survey. The CommerceNet/Nielsen Internet Demographics Study is not the first one ever conducted, but it is the first Internet survey whose results represent the population as a whole.

Table 35. World Wide Web: Uses

Ever Use the WWW to ...

Search for Information on Products/Services	55 %
Search for Information on Companies/Organizations	60 %
Search for Other Information	73 %
Purchase Products or Services	14 %
Browse or Explore	90 %

SOURCE: The CommerceNet/Nielsen Internet Demographic Survey, (October, 1995).

Table 36. World Wide Web: Business Uses

Percent of WWW Users Who Have Used it For Business Purposes Who Have Used it For . . .	
Collaborating With Others	54 %
Publishing Information	33 %
Gathering Information	77 %
Researching Competitors	46 %
Selling Products or Services	13 %
Purchasing Products or Services	23 %
Providing Customer Service and Support	38 %
Communicating Internally	44 %
Providing Vendor Support and Communications	50 %

SOURCE: The CommerceNet/Nielsen Internet Demographic Survey, (October, 1995).

users in the United States and Canada. Some of the key conclusions from the survey were:

- 17% (37 million) of total persons aged 16 and above in the US and Canada had access to the Internet.
- 11% (24 million) of total persons aged 16 and above in the US and Canada had used the Internet in the past three months.
- Approximately 8% (18 million) of total persons aged 16 and above in the US and Canada had used the WWW in the past three months.
- Internet users averaged 5 hours and 28 minutes per week on the Internet.
- Approximately 14% (2.5 million) of WWW users had purchased products or services over the Internet.

Adding in a psychographic level of targeting is increasingly seen as critical to the success of financial direct marketing.⁵ However, although a profile alone might not prove that an individual is ready to invest, active investors can be readily identified by their geo-demographic profile (Wurman, Siegel, and Morris 1990):

- Median age of shareholders: 45 years.
- Median income of shareholders \$36,800
- Median education level of shareholders: 15.5 years
- Male/Female ratio among shareholders: 50/50
- Average stock portfolio (holdings): \$6,100

The CommerceNet-Nielsen Internet Demographics Survey indicates that WWW users are clearly potential investors compared with the population as a whole (See Table 37). For example:

- 25% of WWW users earn household income of more than \$80,000 whereas only 10% of the total US and Canadian population has that level of income (See Table 38).
- 50% of WWW users consider themselves to be in professional or managerial occupations. In contrast, 27% of the total US and Canadian population categorize themselves to have such positions (See Table 39).

⁵ Already, Fidelity Investment is monitoring the traffic moving through its Web site on an hour-by-hour basis. During the summer of 1995, Fidelity reported a much steeper rise in weekend use, indicating increased Internet home use by wired investors. The firm also reported consistent use around 11 AM on weekdays which means wired investors were logging on during their lunch hours at work. (For a more detailed discussion see: Lux, Hal. "Wall Street Wires Into the Web." Investment Dealers' Digest 26 June 1995: p. S2.)

- 64% of WWW users have at least college degrees while the US and Canadian national level is 29% (See Table 40).

According to a 1990 study of shareholders conducted by the New York Stock Exchange, 51.4 million of a total 244 million people were shareholders, up from 30.2 million of 223.1 million people in 1980 (Smith 1995). To date no study has been conducted to determine the proportion of the Internet population that owns and trades a portfolio of stocks. However, the evidence seems to suggest that the Web is here to stay, that the number of individuals making use of it keeps increasing in record numbers and that users represent a sizable target audience for REITs.

4.3 Economic Incentive for Digital Disclosure

In this section, we perform a simple cost/benefit analysis of providing disclosure documents on the Web. Unless we perform a cost/benefit analysis it would be difficult to argue that the benefits of establishing a presence on the WWW can always overcome the costs. One way we can begin to perform a cost/benefit analysis is by comparing the cost of establishing a presence on the WWW and the cost of more traditional forms of providing potential investors information.

As a first approximation, we could begin by estimating the number of investors a REIT reaches with a given volume of information. For example, let's consider a specific comparison between the Web and the traditional investor kit. For the purpose of our analysis, let us use one thousand investor-mailing-year (1 timy) as our unit of measurement. In other words, we are taking a look at the cost of mailing investor kits to one thousand potential investors a year. A record of what it costs a REIT to mail an investor kit to the surrogate investor in chapter two, reveals that on average it costs a REIT \$3.00 to mail an investor kit to an investor. Therefore, the cost of reaching one thousand investors a year with an investor kit is \$3,000. Thus, for a REIT, 1 timy costs \$3,000.

On the Web, costs vary by choice of provider. Therefore, a REIT's biggest decision is whether to contract with one of the many companies offering Internet presence or to hire a network consultant to help bring in a high-speed dedicated Internet connection and an Internet server. The difference in cost between the two options ranges between \$2,400 and \$12,00 a year. If we assume that there are one thousand wired investors, then the cost of 1 timy on the Web ranges between \$2.40 and \$12.00. However, that is assuming that there are only one thousand wired investors.

Table 37. WWW User Demographics: Age

Age	WWW User Demographics	U.S./Canadian Population Demographics
16-24	55 %	55 %
25-34	60 %	60 %
35-44	73 %	73 %
45-54	14 %	14 %
55 or older	90 %	90 %

SOURCE: The CommerceNet/Nielsen Internet Demographic Survey, (October, 1995).

Table 38. WWW User Demographics: Household Income

Household Income	WWW User Demographics	U.S./Canadian Population Demographics
Under \$10K	1 %	7 %
\$10 - 19.9K	4 %	9 %
\$20 - 29.9K	7 %	12 %
\$30 - 39.9K	10 %	14 %
\$40 - 49.9K	10 %	11 %
\$50 - 59.9K	11 %	9 %
\$60 - 69.9K	9 %	6 %
\$70 - 79.9K	10 %	4 %
\$80 - 89.9K	7 %	3 %
\$90 - 99.9K	4 %	2 %
\$100K or Over	14 %	5 %
Don't Know/ Refuse	14 %	17 %

SOURCE: The CommerceNet/Nielsen Internet Demographic Survey, (October, 1995).

Table 39. WWW User Demographics: Occupation

Occupation	WWW User Demographics	U.S./Canadian Population Demographics
Professional	37 %	18 %
Technical	12 %	6 %
Admin/ Managerial	14 %	9 %
Clerical	3 %	6 %
Sales	5 %	5 %
Service Worker	2 %	4 %
Laborer	2 %	7 %
Craftsperson	1 %	3 %
Homemaker	1 %	11 %
Military	2 %	1 %
Full Time Student	16 %	8 %
Retired Not Working	2 %	17 %

SOURCE: The CommerceNet/Nielsen Internet Demographic Survey, (October, 1995).

Table 40. WWW User Demographics: Education

Education	WWW User Demographics	U.S./Canadian Population Demographics
Less than High School	4 %	11 %
High School	8 %	33 %
Technical School	1 %	3 %
Some College	24 %	24 %
Completed College	29 %	17 %
Some Post Graduate	9 %	3 %
Post Graduate	26 %	8 %

SOURCE: The CommerceNet/Nielsen Internet Demographic Survey, (October, 1995).

If we re-do the calculation with one million investors, the cost for 1 tiny on the Web ranges between less than a penny to a little more than a penny.

Every year the mutual fund industry mails about 44 million brochures a year, at a cost of \$4.50 each, to people who have requested information. Furthermore, only one in 15 of those who request information end up buying a fund. (Boston Globe, 11/26/95) While no comparable study has been conducted for the REIT industry, it would not be surprising that the response ratio for REITs might even be lower, given the wider acceptance and popularity of mutual funds. This is particularly worrisome because people who receive investor kits are people who specifically have expressed interest in wanting to invest.

Let us assume on average a REIT would have the same response rate that a mutual fund has. This means that for every one thousand investor kits a REIT mails, the REIT could almost assume a loss of \$2,800 in mailing costs. However, in the case of the Web, a REIT's Web site can continue to be visited at no cost to the REIT. The Web offers REITs a medium with a very low marginal cost of making the information accessible to an additional investor. In fact, Sviokla and Rayport (1995) argue that "companies that create value with digital assets may be able to re-harvest them through a potentially infinite number of transactions, thus changing the competitive dynamics of their industries."

The above calculation does not take into account the cost for preparing and mailing investor kits vs. establishing a Web site. To establish a Web site, all that is needed is an Internet connection, a server and server software. If a REIT chose to go on the high end of the figures above, the \$12,000 a year includes setup and hardware maintenance. Therefore, all that a REIT would have to purchase is a server. On the other hand, preparing and mailing an investor kit is not costless; it involves the time cost and the wage of a REIT employee who prepares each investor kit. Distributing paper copies are tedious and time-consuming tasks, especially when the documents are long or the distribution list extensive (Morgan 1996).

Most REITs do not realize how much money they are wasting by printing hundreds of annual reports a year, and in some cases several hundred copies of their 10-Q forms and 10-K form only to have these gather dust on the desk of investors. The cost of printing disclosure documents varies by region, but on average costs range from 2 or 3 cents per page for inexpensive black and white documents up to several dollars per page for short-run high-quality full-color printing (Roselaren 1995). A REIT may be able to save a couple hundred dollars by using three instead of four colors or regular paper size instead of a customized paper size when it prints its disclosure documents, but all of this does not change how quickly the document moves through the U.S. mail.

Producing electronic disclosure documents involves skilled labor or expertise which most REITs do not possess. As a result, it could be argued

that making the original electronic disclosure documents is no cheaper than producing the original paper versions. But for projects of any scope, reproduction and distribution costs are almost always lower for electronic documents than for paper ones (Roselaren 1995). In chapter three, when we asked REITs if the information they provide their investors is managed economically, seventy-one (84.5%) respondents say they did.

In summary, if a REIT uses the Web for electronic disclosure, the potential for savings in time and printing costs is greatly enhanced and photocopying and physical distribution of disclosure documents is greatly reduced. The WWW is quickly becoming the fastest, most cost-effective and environmentally friendly means of providing information about a REIT to investors (Morgan 1996). Furthermore, in chapter three, when we asked REITs if their investors received timely information about their REITs, sixty-eight (81%) respondents thought they did. However, information in print media can become outdated quickly (Morgan 1996). By the time a REIT prints and distributes their disclosure documents, most of them are already out of date.

4.4 Conclusion

To sustain growth in the marketplace, your information systems must help you gain a competitive edge.

Deloitte Haskins-Sells

Nelson (1981) predicted that a merging of media and publication conventions would occur when documents became paperless publications on the computer screen. In his book, *Literary Machines*, he predicted that hypermedia publications would eventually be linked into a single entity. The single entity that Nelson predicted has become the World Wide Web (WWW).

The WWW is no longer a futuristic idea written in a science fiction novel. The World Wide Web as accessed through a browser such as Mosaic or Netscape, is a multimedia environment that allows information to be presented as a combination of text, sound, still and animated graphics and video.

On the WWW, the potential exists for investor kits to be interactive packages of information, created to help wired investors find needed information quickly. Furthermore, the potential exists for on-line presentations that teach wired investors more about the attributes of individual REITs. Through the WWW, the potential exists for wired investors to get comfortable with a REIT so in the future they can invest in it.

With 37 million people already having access to the WWW, it is difficult not to imagine that wired investors should soon be able to actively download financial data and conduct their own financial analysis on individual REIT. Rather than wait for wired investors to demand WWW-based resources, REITs must put their strategies into place so that when the times comes they are ready to meet investor demand.

To summarize, the World Wide Web appears to provide REITs with the following opportunities:

- A cost effective opportunity to provide potential investors access to information.
- A cost effective opportunity to provide shareholders 24-hour access to information.
- A cost-effective opportunity to provide timely updates of information.
- A cost-effective opportunity to provide customized information.
- A cost-effective opportunity to provide information in an environmentally friendly way.

To create value with information, REITs must look to the marketplace (Sviokla and Rayport 1994). In the next three chapters, we discuss digital or electronic disclosure of REIT information. Sviokla and Rayport (1995) argue that creating value in the marketplace involves a sequence of five activities: gathering, organizing, selecting, synthesizing, and distributing information. Chapter five is about the advantages of gathering, organizing, selecting, and synthesizing REIT information to disclose in electronic form. In chapter six, rules and regulations catch up with us; in this chapter we review the rules and regulations dictated by the SEC for electronic disclosure of REIT information. Chapter seven is about how REITs must organize in the marketplace to effectively distribute REIT information.

5. Digital Disclosure: From Paper to Bits

Until recently, the Internet was used primarily to exchange electronic mail, but with the increasing use of modems it has also become the most convenient means of sharing information. The Internet has the potential to revolutionize the way REITs provide information to their investors. For example, imagine two hypothetical REIT, ABC Properties and XYZ Retail. Each reacts differently to an investor's request for information.

ABC Properties' investor kit has an old annual report and no copies of the most recent quarterly reports or the 10-Q form. When the investor begins to read the annual report, he finds no information or picture of the management he is supposed to trust. Furthermore, no contact person is easily visible for him to call in case he needs more information. Mailing cost for this package, paid for by the REIT, \$3.00.

XYZ Retail, where pleasing the investor is a way of life, treats the request for information differently. The first thing the investor sees is a personal letter from the CEO thanking the investor for his interest in their REIT. A stamped postcard, ready to be mailed is included for the investor to fill out if he wants to be included in the REIT's mailing list. What's more, an old annual report is included but a note attached to the front cover informs the investor when the new copies will be available. For the number-wise investor, 30 pages of financials are included in the annual report; more recent financial data is included in quarterly reports; and the REIT provides the investor with copies of the most recent 10-K and 10-Q forms. Finally, to provide an objective view, copies of research reports of three major investment banks are included for the investor's review. Mailing cost for this package, paid for by the REIT, \$3.00.

To ABC Properties, a request for information translates into a requirement that must be met. On the other hand, XYZ Retail sees the request for information as an opportunity to solve investor's questions by providing answers to their most common questions.

Now, imagine a third REIT called CyberREIT. This REIT, like XYZ Retail sees the request for information as an opportunity to solve investor's questions, but included in the investor package is the REIT's World Wide Web address. An attached set of instructions informs the investor that he could get detailed descriptions of all the REIT's properties at the REIT's Web site, including pictures and tenant lists. In addition, to minimize the time to input all the financial in the investor's spreadsheet, the investor can download all the most recent financial reports from the web site and immediately begin conducting complex sensitivity analysis. Finally, if the investor wishes to receive electronic press releases about the most recent activities of the

REIT, all he has to do is send the REIT an e-mail requesting such information. Sounds far fetch? This can all be done today!

In chapter one, we argued that there is a need for investors to have better access to REIT information. In chapter two, we confirmed that there is room for improvement when it comes to fulfilling an investors' request for information in a reasonable amount of time. In chapter three, we discovered that REITs that have access to the Internet are more likely to think of themselves as using information as a competitive tool than those REITs who do not. Furthermore, wired REITs, REITs with connection to the Internet, had a better on-time performance record to an investor's requests for information than those REITs who did not have a connection to the Internet. Finally, wired REITs, as a group, had a higher degree of certainty that their investors were satisfied with the information they provide them than did REITs who reported not having access to the Internet.

The forms of communication and the means by which REITs communicate with their investors led us to the Internet. In the previous chapter, we explored why REITs should consider the WWW as a tool to enhance the relationship that they build with their investors. The Internet provides REITs an opportunity to open new channels for sending, receiving and sharing information with their wired investors. However, assuming that the WWW can be used by REIT for the disclosure of information, we must now consider the Web's usability in two ways: How well does it compare to paper based disclosure? Does it work as a mechanism for the disclosure of REIT data?

5.1 Review of Securitization and Disclosure

Information has value
and can be acted upon.
Data, on the other hand,
must be processed or
analyzed for meaningful
management input.

Price Waterhouse

5.1.1 Securitization

One of the more prominent developments in real estate finance in the past decade, and one which will assume greater importance in the future, is the securitization of real estate, by which is meant the issuance of marketable securities backed not by the expected capacity to repay of a real estate operating company but from the expected cash flows from real estate assets. According to Fox (1993), the evolving convergence of real estate and the securities markets is inevitably leading to:

1. Greater dissemination of information regarding real estate traded in the market place and the people and entities that buy, sell, and manage it;
2. The application of securities laws and regulations, including anti-fraud rules, to a wider variety of transactions involving real estate, requiring a greater dependence upon outside audits and legal advice; and
3. Greater protection of investors.

Before going public, Fox (1993) argues that many private real estate companies operated behind a veil of relative secrecy and, with few exceptions, conducted their business out of the public eye. Prior to going public, many of today's REITs operated as real estate companies that were used to little oversight and which rarely disclosed any information about the properties they owned. Furthermore, disclosing the sources or uses of funds was something that real estate companies would never do. In addition, making use of internal or "inside" information that was not easily known to the public provided an "edge", and was not illegal.

In their search for an alternate source of new capital, many real estate companies turned to Wall Street. As a result, newly formed REITs now find themselves exposed to more stringent financial accounting and public scrutiny. Furthermore, the managers of real estate companies turned REITs are now restricted by insider trading rules and precluded from engaging in new business opportunities when such investments conflict with their responsibilities to their newly formed public companies. (Fox 1993)

Because public offering and the sale of securities is highly regulated and requires extensive public disclosure, Fox (1993) argues that continuing the movement toward real estate securitization will result in:

1. A growing number of major real estate operators who have consolidated their company holdings in public companies;
2. A growing portfolio of real estate held by public companies;
3. Greater flow of information regarding these properties and companies;
4. Enhanced regulation of the conduct of the persons and entities sponsoring public offerings in real estate and managing publicly held real estate companies.
5. Greater protection of minority investors in real estate securities.

5.1.2 The Securities Act

The Securities Act of 1933 regulates the distribution of securities. Under the rules of the Securities Act, any offer or sale of a security in interstate commerce is unlawful unless the registration requirements of the Securities Act are satisfied or there is an exemption from such requirements. The

Securities Exchange Act of 1934, taken together with the Securities Act, requires the dissemination of information by the filing of periodic, publicly available reports and by regulating communications with shareholders. Recently, however, five developments have been identified for eroding the Securities Act's effectiveness:

1. Technological developments in the field of electronic communications;
2. Erosion of traditional distinctions between public and private offerings;
3. Globalization of the capital markets and concomitant erosion of "country walls" between such markets;
4. Novel financing instruments, methods of raising capital and risk management initiatives; and
5. Regulatory initiatives designed to reduce other market risks, such as those relating to the clearance and settlement system, which are compressing the time frame for many offerings.

5.1.3 Disclosure

Full and fair disclosure protects REIT investors while at the same time eases the ability for REITs to raise funds from the public. In the context of REITs, and for the purpose of this research, there are two types of disclosure. The first type of disclosure is defined as the release of information in a REIT's possession that is requested by an investor. The second type of disclosure pertains to a REIT's information required by the Securities and Exchange Commission (SEC). In both instances information is collected and maintained for a select purpose.

While the disclosure documents allowed by the SEC are indispensable sources of information for REIT investors, the reality is that these documents are often written in a manner that makes them unreadable. Dense writing, with legal boilerplate and repetitive descriptions of a REIT, has become the standard convention. Furthermore, habits that have become entrenched by years of practice have made it easier to copy from previous disclosures than to formulate new and more effective ways to communicate with investors.

The SEC periodically reviews areas of its regulatory structure to see how they might be made more efficient and less burdensome. In 1995, the SEC undertook two such reviews. The Advisory Committee on Capital Formation and Regulatory Processes and the Task Force on Disclosure Simplification. The Committee examined ways to improve the process for registering securities that are offered in the public markets, including the concept of registering companies as opposed to transactions or offerings of securities. The Task Force reviewed rules and forms affecting capital formation, with a view toward streamlining, simplifying, and modernizing the

overall regulatory scheme without compromising or diminishing investor protections.

The Task Force's report stressed that the current process used for disclosure "has served the markets well for over 60 years, but should be rethought in the age of novel financial instruments and virtually instantaneous electronic communication" (SEC Task Force Report on Disclosure). However, the report recognized that changes in securities regulation offers "unusual challenges because changing long-established conventions is never easy" (SEC Task Force Report on Disclosure). The report cautioned that "any changes to the current system must avoid tipping the balance in favor of certain market participants or jeopardizing investor protection" (SEC Task Force Report on Disclosure).

5.1.4 Mandatory vs. Voluntary Disclosure

By going public, many new disclosure standards have been imposed over REITs. While REIT managers have no choice but to comply, the new reporting requirements make it more challenging to communicate with investors. It is a challenge to communicate with investors because the scrutiny of the public markets create pressures for REIT managers to smooth reported earnings, or to avoid pursuing strategies with long-term payoffs that reduce short-term earnings (New York Times, 03/2/86).

Most information models in economics and finance, assume that REIT managers have superior information on their REIT's current and future performance than outside investors. As a result, it is argued that disclosure strategies provide a potentially important means for REIT managers to impart their knowledge to outside investors. However, there are two types of disclosure documents that form the basis for any disclosure strategy. REITs can provide their investors:

- *Mandatory Disclosure Documents:* Disclosure documents required by laws or regulations.
- *Voluntary Disclosure Documents:* Disclosure documents which are not required by law or regulation that help investors understand a REIT's business strategy.

Absent an active, well planned disclosure policy that includes mandatory with voluntary disclosure, there is no assurance that the full value of the firm's other activities (investment, production, marketing) will be recognized by outsiders. (Lev 1992)

According to Lev (1992), information disclosure can create value in two ways:

1. Directly, by narrowing the information gap (asymmetry) thereby decreasing investors' uncertainty about the firm (agency costs); and

2. Indirectly, by enhancing value-creating activities through a reduced cost of capital and improved suppliers' and customers' terms of trade.

Finally, Lev (1992) argues the consequences of the information gap and agency costs are particularly pronounced for companies which are not prominent in the public's mind set. Consequently, the benefits of a disclosure strategy will be particularly large for REITs.

5.1.4.1 Mandatory Disclosure Documents

Investors who do not actively participate in the management of the firm rely on mandatory disclosure documents to value their claims because these potentially reflect managers' proprietary business information. However, because managers have incentives to bias the numbers in their self interest and to conceal proprietary information from competitors, it is difficult for managers to credibly communicate their firm's current performance and future prospects to investors exclusively through mandatory disclosure documents. (Healy and Palepu, 1993) Although, Healy and Palepu (1993) argue that disclosure standards, dictated by the SEC, and mandatory financial audits restrict the ability of a manager from distorting financial data, they emphasize that managers can improve their communication with investors by developing disclosure strategies.

(Lev 1992) argues that despite what often seems as burdensome and strict regulation of mandatory disclosure documents, numerous choices are available to managers within the legal bounds. According to Lev (1992), managers can select from a wide menu of measurement and reporting practices allowed by Generally Accepted Accounting Principles (GAAP).

5.1.4.2 Voluntary Disclosure Documents

Healy and Palepu (1993) argue that voluntary disclosures can help investors understand managers' business strategies. Lev (1992) argues that managers should augment mandatory disclosures by voluntary release of background information, statements of policy and strategy changes, and forecasts of future performance. Voluntary corporate disclosures which are not required by laws and regulations have been found to exert a significant impact on perceptions and market values. (Lev 1992)

Lev (1992) argues that combining mandatory disclosures with voluntary disclosures, generally ensures that the full value of a company's production, finance, and marketing strategies and activities are reflected in a timely manner in its stock and bond prices. However, Lev (1992) like Healy and Palepu (1993) argues that without an active, well planned and executed disclosure strategy there is no assurance that the intrinsic value of a company and its potential will be fully appreciated by outsiders (investors, suppliers, customers).

5.2 Going from Paper to Bits

5.2.1 Investor Kits

Between March 13, 1996 and April 20, 1996, 167 investor kits, of REITs representing every major property type and each of the four standard geographic regions used by NACREIF for real estate investment, were accumulated and subsequently their contents evaluated. The goal of this part of the research was to access the type of information that REITs provide an investor that requests an investor kit. It was assumed that when a REIT had no knowledge of the investor who requests information or what has motivated the request, their response would be unbiased. By not disclosing the true purpose for which the investor kits would be used, a realistic snap shot of REIT disclosure practices has been achieved.

Each investor kit was evaluated based on its content of mandatory disclosure documents (e.g., 10K, 10Q, annual report, etc.) as well as for its content of voluntary communications (e.g., Newspaper clippings, in-house publications, pamphlets, maps, etc.). Also considered were the actions (e.g., personal letter, contact name) aimed at enhancing the relationship with investors.

It was assumed, at the outset, that the preparation of an investor kit is not a separate, isolated task that REITs considered as a non-essential activity. Rather, it was assumed that a REIT's investor kit is a blue print of a REIT's overall financial standing, corporate strategy and culture, and therefore time and effort is allocated into its preparation to ensure that it provides an investor all the information required to make an informed investment.

The investor kit was seen as being equivalent to the resume a job applicant provides a future employer. Just like a resume is the job candidate's add, a good investor kit was consider to be a REIT's best add. From the mutual fund industry we have learned that even when a fund has managed to capture the attention of an investor, it does not mean the investor will invest (Boston Globe, 11/26/95). Therefore, the content of an investor kit was assumed to be of extreme importance and the single most important evidence of a REIT's disclosure strategy.

It was assumed that REIT investors who request information want to know how a REIT is doing, where the REIT is going, who are the leaders and decision-makers, what isn't working that needs to be fixed, and how the REIT is doing in relation to its competitors. Furthermore, it was assumed that investors do not invest in a REIT; they invest in the achievement of their objectives, hopes and dreams via the REIT. As a result, it was assumed that for a REIT to be able to grasp the attention of investors via their investor kit, items that could make an emotional connection with the investor were important. Therefore, every item in an investor kit, mandatory disclosure documents and voluntary disclosure documents, were regarded as having

some value. However, no attempt was made to try to give specific values to items contained in an investor kit.

5.2.1.1 Content: Mandatory Disclosure Documents

The following is a list of items that were considered to be mandatory disclosure documents and which were contained in the investor kits of REITs:

- Prospectus
- Dividend Reinvestment Plan
- 10-Q
- 10-K
- Interim Report (*Quarterly, Semi-annual*)
- Annual Report
- Notice of Annual Meeting

Figure 17 includes the percentage tabulations by type of disclosure document.

5.2.1.2 Content: Voluntary Disclosure Documents

The following is a list of items that were considered to be voluntary disclosure documents and which were contained in the investor kits of REITs:

- Research Reports
- Press Releases
- In-House Publications
- Pamphlets
- Newspaper/Journal Articles
- Self Contained Maps/Directories
- Management Biographies

Figure 18 includes the percentage tabulations by type of disclosure document.

5.2.1.3 Content: Items Aimed at Relationship Building

The following is a list of items that were included in the investor kits of REITs that were considered to be aimed at building a relationship with investors:

- Personal Letter
- Contact Person's Name
- Gift

Figure 19 includes the percentage tabulations of REITs that included items aimed at building a relationship inside their investor kits.

Figure 17. Investor Kit Survey: Mandatory Disclosure Documents

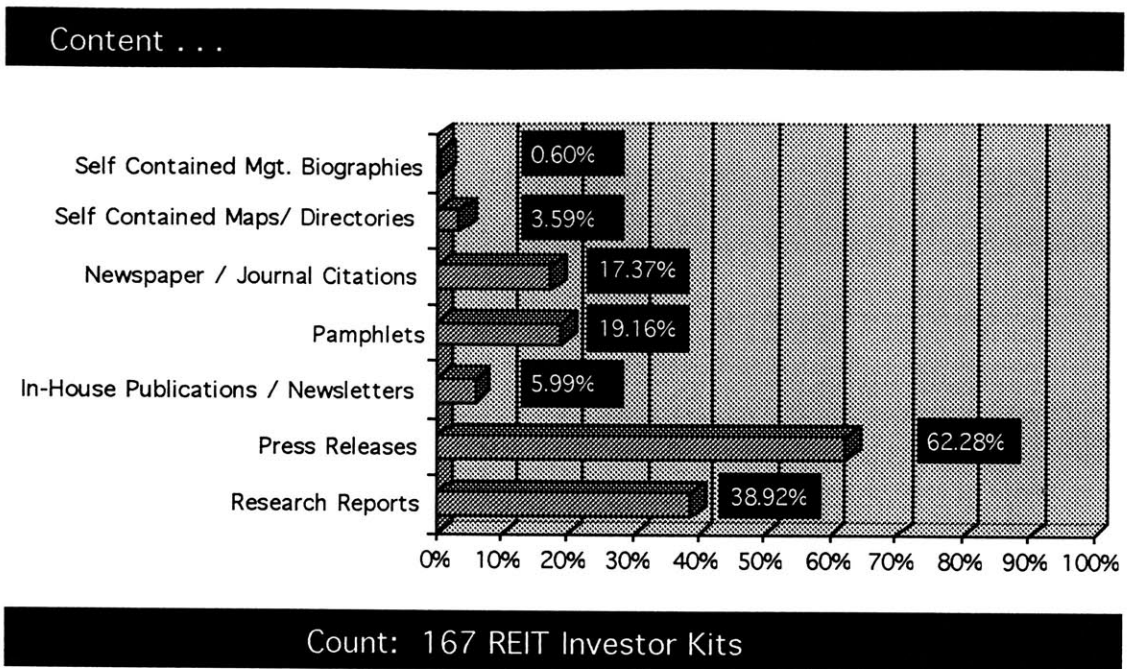


Figure 18. Investor Kit Survey: Voluntary Disclosure Documents

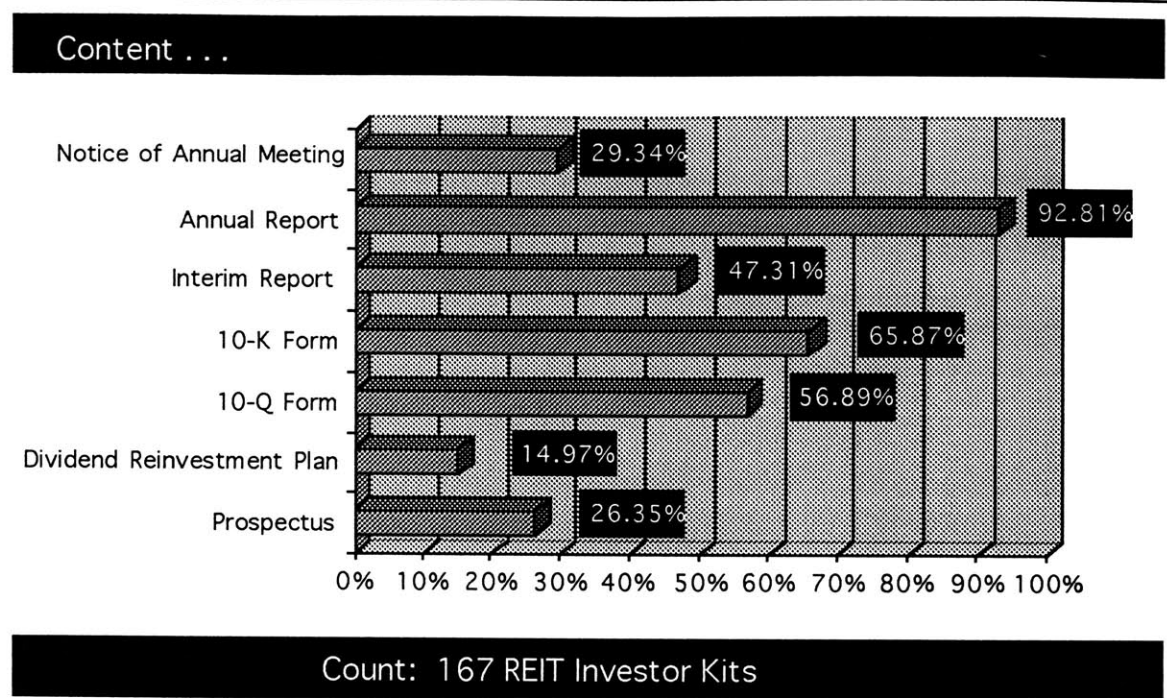
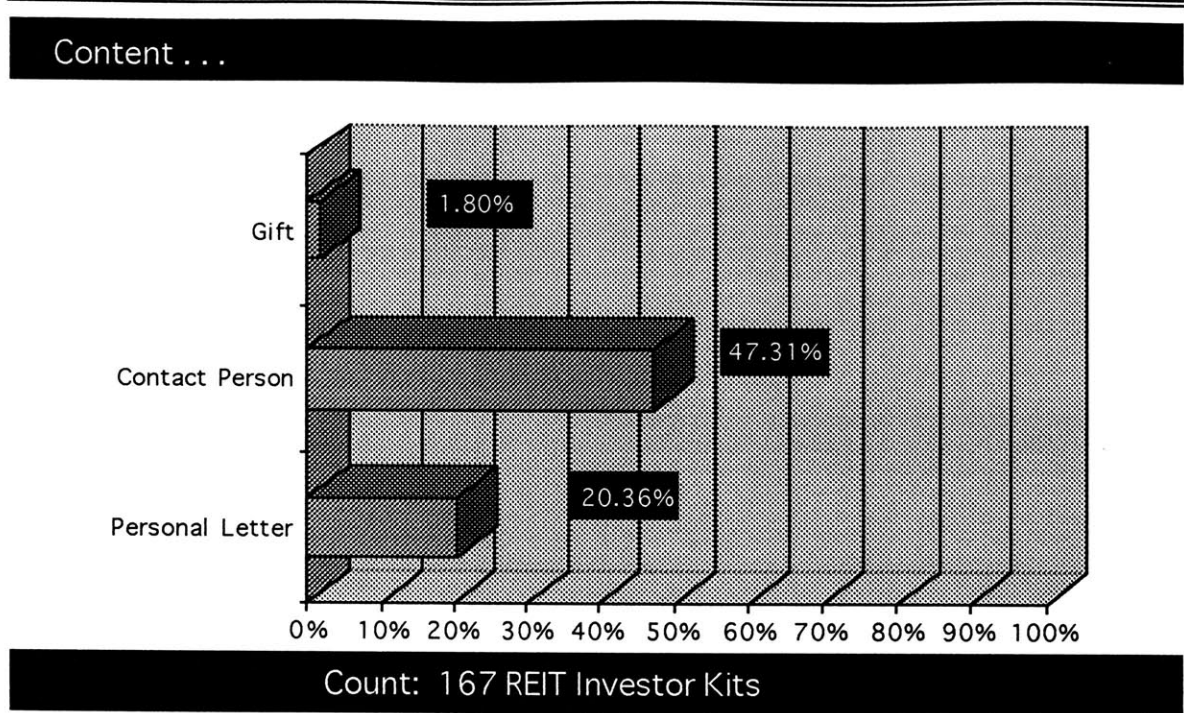


Figure 19. Investor Kit Survey: Items Aimed at Relationship Building



5.2.1.4 Investor Kit: Summary

The following is a list of items most likely to be included in a REIT's investor kit, followed by the percentage of REITs that included them in their kit:

• Annual Report	92.81%
• 10-K Form	65.87%
• Press Releases	62.28%
• 10-Q Form	56.89%
• Interim Report	47.31%
• Contact Person's Name	47.31%
• Research Reports	38.92%

While most REITs include an annual report in the investor kit they mail to investors, only thirteen (7.8%) of the REITs that responded included all of the items listed above. The figures above are representative of 167 REITs that responded by mail to a request for information.

5.2.2 A REIT's Annual Report

Since the annual report was the most popular item contained in a REIT's investor kit, in this section we take a look at 155 annual reports to determine their content, their structure, their length and just about everything that they contain. Analyst will tell you that there is no magic formula behind a REIT's annual report. However, every year the editors of the publication Institutional Investor select the eight best annual reports. In 1993, together with the list of winners, the editors sarcastically provided their classic recipe for creating an annual report. They said . . .

Take a grabby design concept, one that features a picture or an image that makes an emphatic statement on the cover and weaves its way through the inside pages. Add a chairman's letter -- sometimes chatty, more often numbingly boring -- that gives the company a chance to brag about its performance, apologize for a rotten year or lay out the strategy for the next twelve months. Throw in the obligatory explanation of the company's business -- and the obligatory photographs of smiling employees, satisfied customers and shiny new products. Finally, in black and white, sprinkle in the report's most essential ingredients: the financials.

Hopefully, REITs do not think of their annual report only as an opportunity to provide investors with pretty pictures of their properties. As we will see in this section, what REITs include in their annual report varies by REIT. However, a strong chairman letter, a thorough and candid management discussion and analysis section and detailed financials are the key ingredients of an effective annual report.

5.2.2.1 Content: Annual Reports

Annual reports are broken into several sections; they contain pictures, maps, graphs, charts, listings. Below is a list of variables that were used to analyze 155 annual reports of REITs:

- Year of Annual Report
- Pages Dedicated to Management Discussion
- Pages Dedicated to Financials.
- Pages Dedicated to Shareholder Letter
- Number of Pictures
- Number of Charts and Graphs
- Maps

Figure 20 through Figure 28 summarize the contents of REIT annual reports.

5.2.2.2 Summary of Annual Report Survey

A survey of 155 annual reports of REITs revealed that the most common annual report format contains:

- A two page letter to shareholders (34.8%).
- Between eleven and twenty pages of management discussion (44.5%).
- Between eleven and twenty pages of financials (45.8%).
- A separate listing of the REIT's portfolio (53.6%).
- Between five and fifteen pictures (50.3%).
- Between one and five charts or graphs (45.2%).
- A map of the REIT's portfolio (64.5%).

Furthermore, a survey of all of the sections contained in the annual reports of REITs, revealed that all of the items that REITs use to communicate to their investors, text, graphs and pictures, can be represented in digital form.

Figure 20. Annual Report Survey: Year

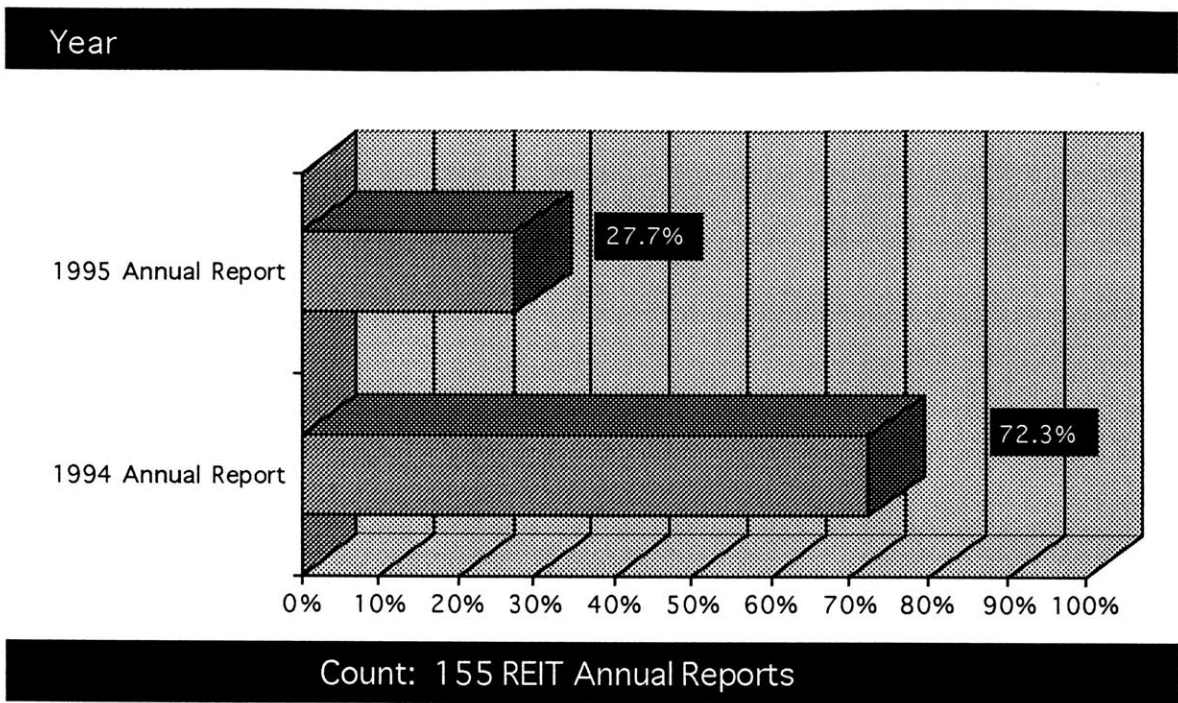


Figure 21. Annual Report Survey: Management Discussion

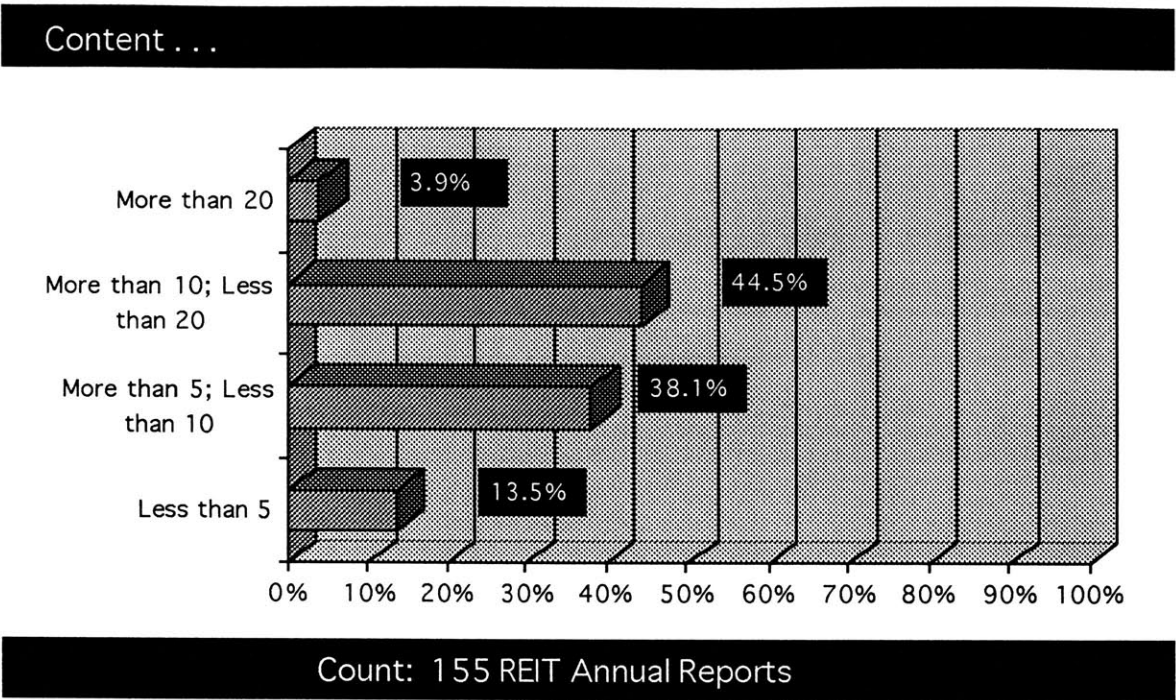
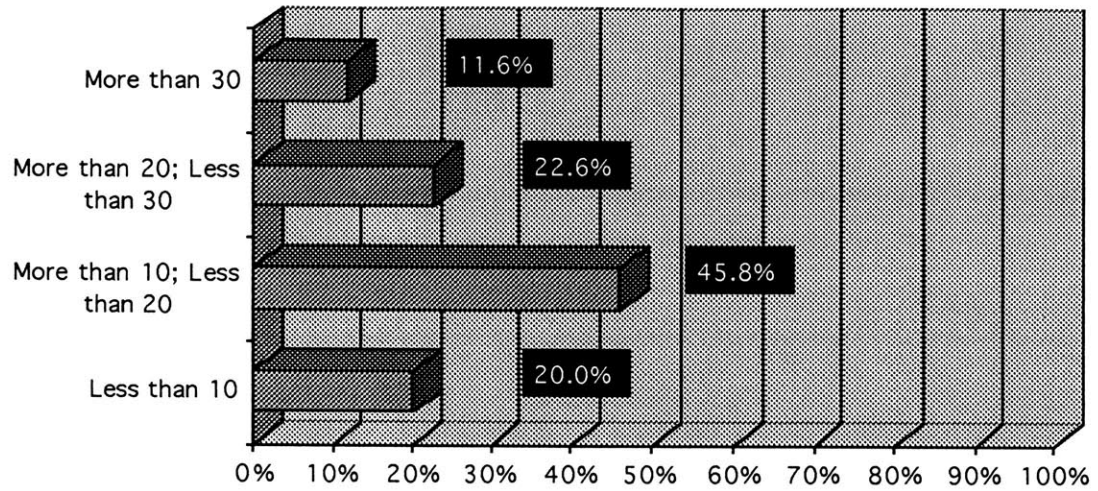


Figure 22. Annual Report Survey: Financials

Content . . .



Count: 155 REIT Annual Reports

Figure 23. Annual Report Survey: Shareholder Letter

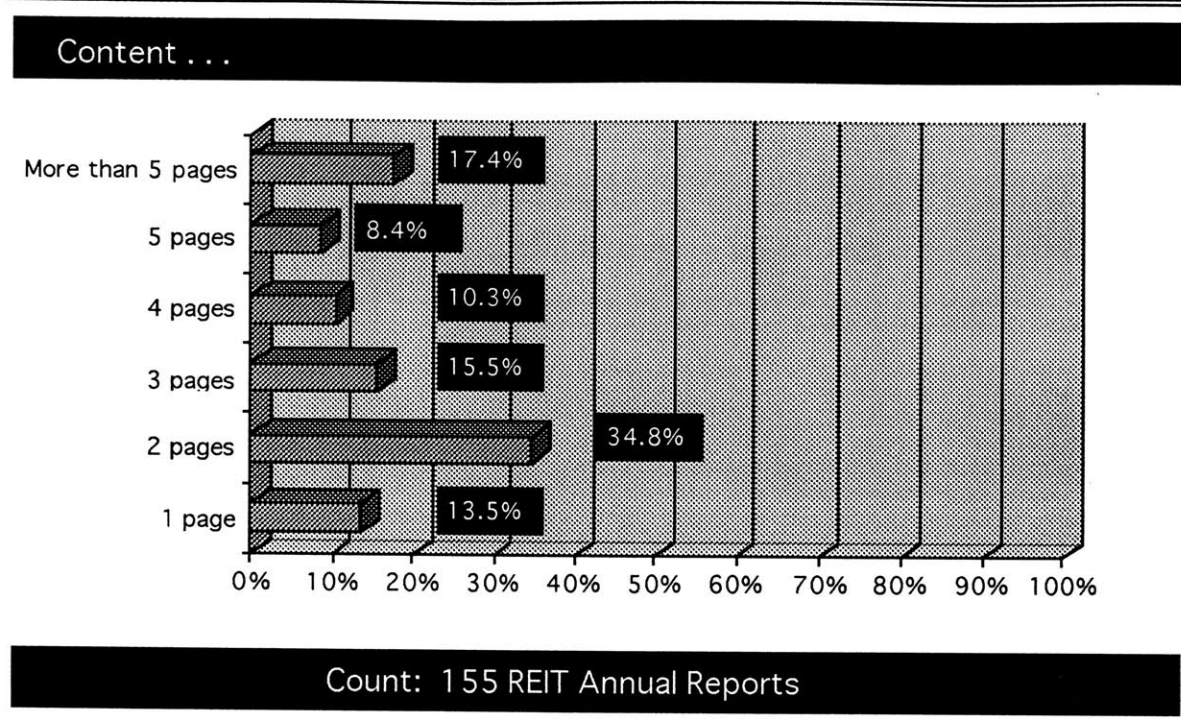


Figure 24. Annual Report Survey: Listing/Profile of Properties

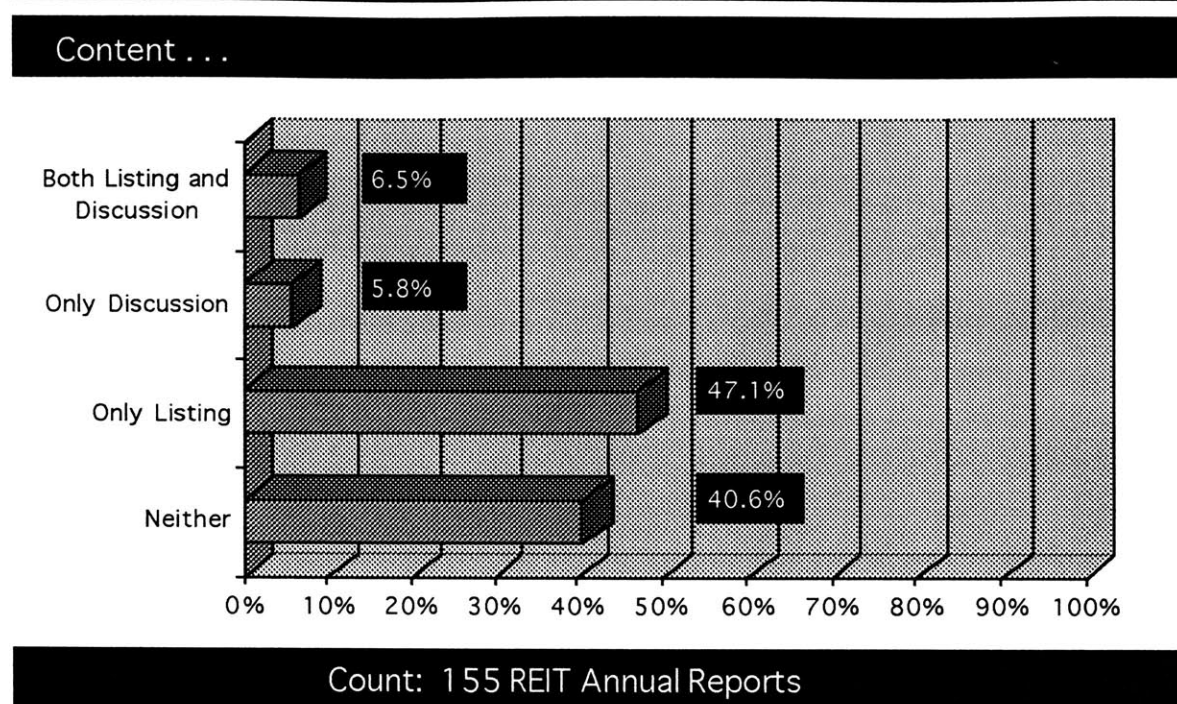


Figure 25. Annual Report Survey: Pictures

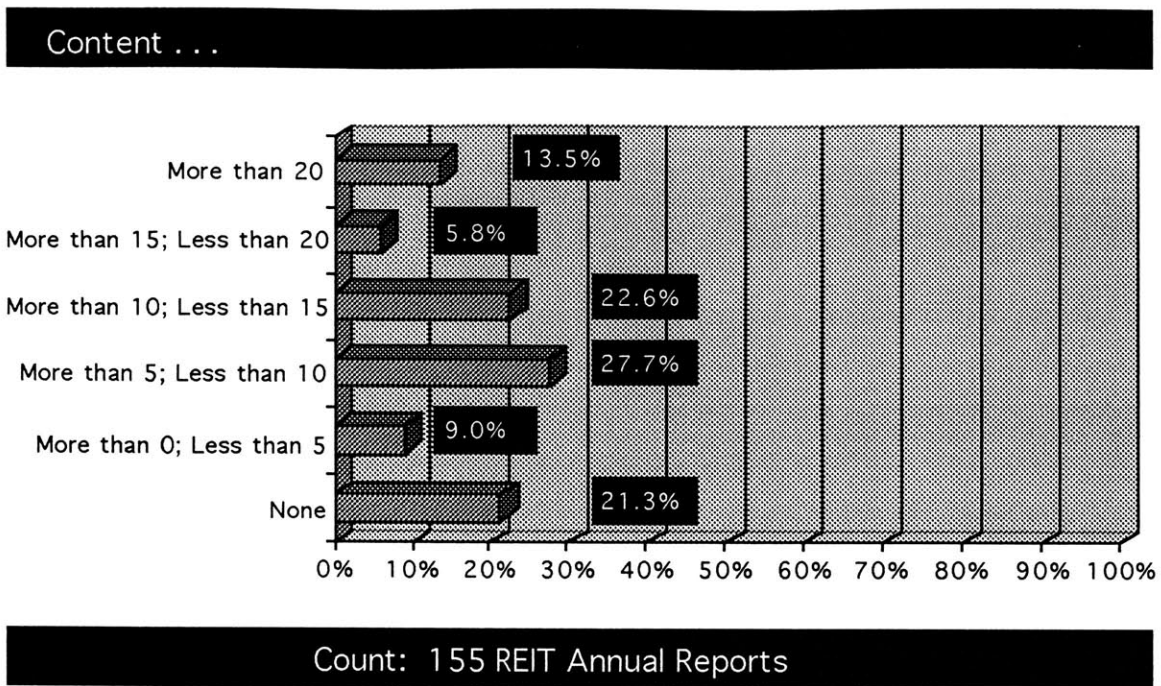


Figure 26. Annual Report Survey: Charts and Graphs

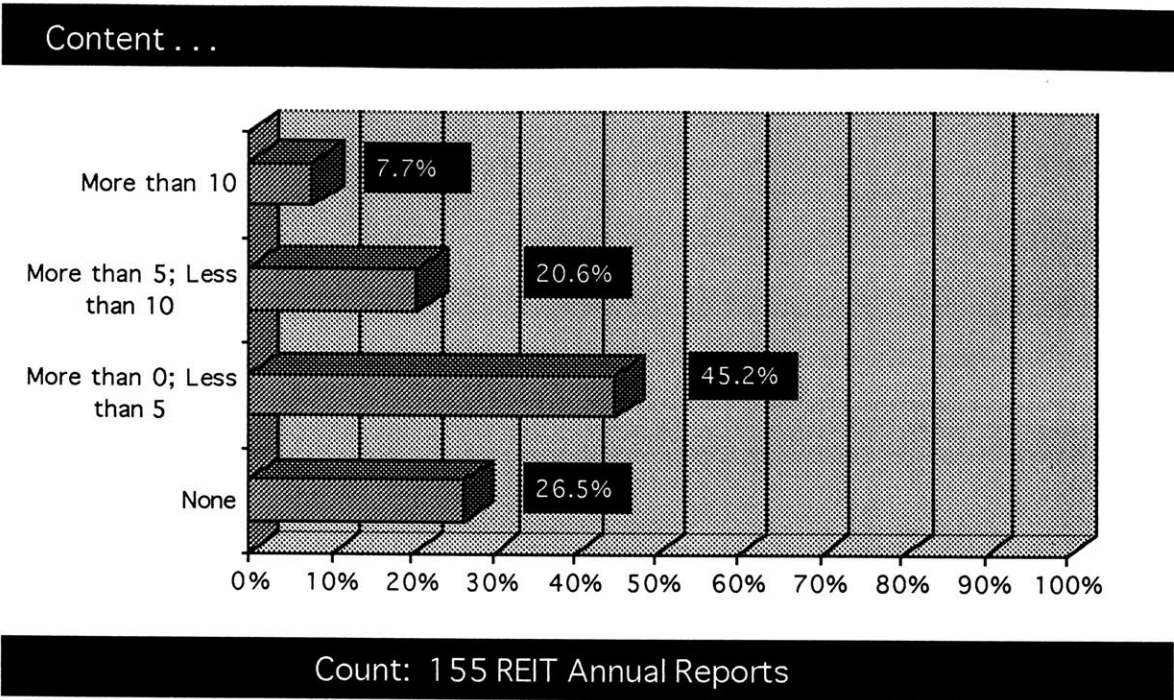


Figure 27. Annual Report Survey: Map of Portfolio

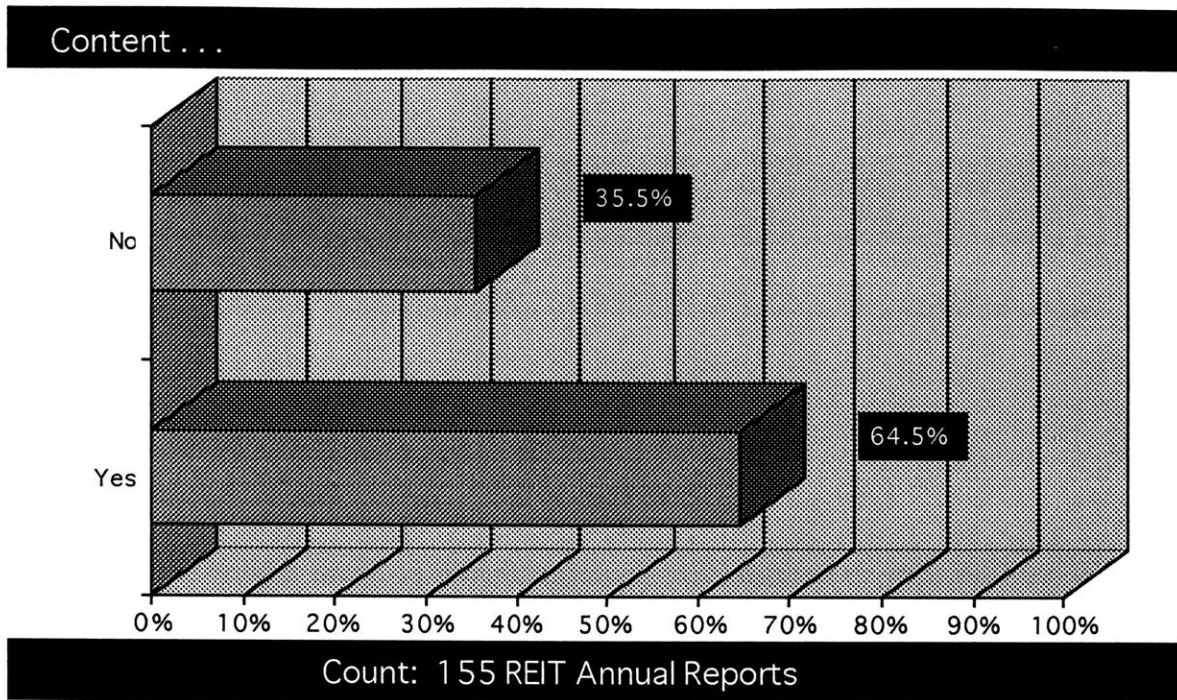
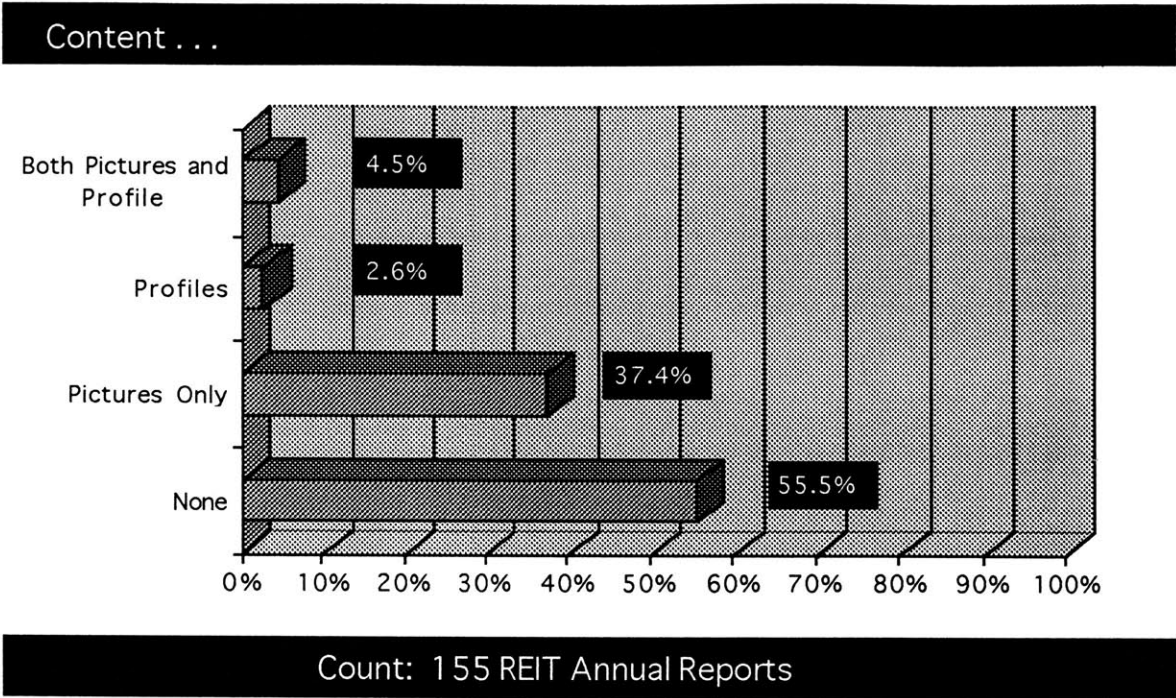


Figure 28. Annual Report Survey: Management Profiles/Pictures



5.3 Implications of Using Bits Instead of Paper

Throughout this research, we have assumed that the Web supports better the same task that paper disclosure supports. In fact, some tasks that people do can benefit from information presented on the WWW substantially more than others. For example, Grice and Ridgway (1993) suggest that for people whose main focus is learning about a topic and exploring related topics, an environment like the Web can be used to their best advantage.

In the previous section, the content of investor kits and the content of annual reports were discussed, and it was confirmed that all items in a REIT's investor kit can be produced in digital form. In this section, we discuss a set of usability measurements for printed and on-line information. These measurements can be used to determine if the information that REITs currently disclose on paper would be suited for digital disclosure. Simply because an item can be presented in digital form does not mean that is should.

Grice and Ridgway (1993) have defined a set of usability criteria. In this section, we use their criteria to evaluate if the disclosure documents we listed in the previous section are suited for digital disclosure. The six factors used in this analysis are: accuracy, completeness, pertinence, appearance, task-orientation, task-supportiveness.

5.3.1.1 Accuracy

On the WWW the possibility of perceived accuracy being different to true accuracy becomes greater (Grice and Ridgway, 1993). Grice and Ridgway (1993) argue that "in such an environment, readers can, to varying extents, define the context in which they are reading and working. Because of this variability in context, facts that are true and unambiguous in one context may appear to be ambiguous - and thus easily misinterpreted - in a different context." However, there is no reason why information that a REIT discloses to investors on paper should be more accurate than the information it chooses to disclose to wired investors through its Web site. In chapter three, when asked if their investors always receive accurate information about their REIT, sixty three (75%) of the respondents believed that their investors did.

5.3.1.2 Completeness

If a REIT discloses its annual report on the WWW and includes every paragraph, picture, table, graph, map, etc., it would be hard to argue that the Web version of its annual report is not a complete version. However, Grice and Ridgway (1993) explain that, on environments such as the Web, completeness takes on a very different meaning than in traditional forms of

disclosure. If a wired investor reading a REIT's annual report is allowed to skip around, he may end up gathering all the information he needs to make an informed assessment of the REIT. However, the wired investor may also skip some important part of the information if he jumps between parts of the annual report to hastily.

Grice and Ridgway (1993) argue that on environments such as the Web, the completeness, or perceived completeness, of the documents that REITs disclose will be in large parts determined by wired investors. According to Grice and Ridgway (1993), it does not matter if the information on a REIT's Web site is complete if wired investors can - either intentionally or unintentionally - skip parts of the information they need and still proceed as if they had seen all needed information.

5.3.1.3 Pertinence

In ensuring completeness, a REIT may also add information to its disclosure documents that seems unnecessary for many wired investors. (Grice and Ridgway 1993) Furthermore, when a REIT puts together its annual report or its prospectus, it can only guess the order in which investors will read through it. Investors are so different from one another that it is impossible to determine a generic strategy that an investor uses to review disclosure documents.

Since one of the features of the Web is that it allows wired investors to jump between sections while they review disclosure documents, perceived pertinence is reduced through Web disclosure. Furthermore, since wired investors can control the information they read on the Web, the information is not extraneous because investors chose to see it. (Grice and Ridgway, 1993). However, Grice and Ridgway (1993) argue that users "cannot judge its relevance without seeing it, so they may be misled into looking at something in order to discover its usefulness."

Throughout the investment community, it has always been said that the annual report is for less experienced investors, while the 10-K form, which is also an annual report, provides more detailed information. Grice and Ridgway (1993) suggest that for environments such as the Web, "perhaps what will be needed is a minimalist main path through the information, for those who want to do a task simply and quickly, and optional "side tours" of related, specialized, or advanced information, for those with specific needs or a general interest in the topic at hand."

5.3.1.4 Appearance

When it comes to appearance, much of what applies to printed disclosure documents applies to electronic disclosure. Like with printed disclosure documents, consistency and standardization of appearance are the most important features. (Grice and Ridgway, 1993) However, with electronic disclosure there is a wider opportunity to vary the color, text, patterns, etc.,

which can result in wired investor getting disoriented when reading through an electronic version of a REIT's annual report.

5.3.1.5 Task Orientation and Task Supportiveness

The Web allows REITs to easily present layered information. (Grice and Ridgway, 1993) A wired investor may begin by getting an overview of the REIT; the next layer may be a description of each of the properties a REIT holds in its portfolio. Another layer may go as far as to list and describe the tenants that each property has. In general, on the Web, REITs have the option to extend and provide additional information beyond the structure that is customary of traditional disclosure documents. For example:

- Links can be set up to go through a digital library of images of all the properties.
- Links can be set up to download financial data formatted for the most common spreadsheets.
- A bulletin board might be organized where wired investors discuss topics of interest with the managers of a REIT.
- An interactive glossary of terms can be easily created so a wired investor can learn the definitions of terms used throughout disclosure documents.

Furthermore, the Web is connected to many databases that can aid a wired investor in his analysis of a REIT. For example, a REIT may provide a link to the U.S. Census Web site. At this site, wired investors can access demographic data on regions or cities where a REIT owns or operates properties. It is the responsibility of each REIT to provide links to wired investors to other sites they consider useful in making an accurate assessment of their REIT. (Grice and Ridgway, 1993)

5.4 Conclusion

In one year the United States runs out 1.3 trillion documents, sufficient, according to some calculations, to "wallpaper" the Grand Canyon 107 times (Toffler 1990). In my office alone, every investor kit that was received for this research was placed in a separate file and promptly stored. The disclosure documents of 167 REITs filled five boxes of archive data and took over a sizable portion of my office. Although the documents were neatly stored, every time I needed a specific document it never took me less than fifteen minutes to find it.

There were two major problems surrounding the documents that REITs send their investors in paper form: space consumption; and search difficulties. The bulk of documents that REITs send investors often renders their work

areas cluttered and, when a document is needed, it may not be easily found. On the other hand, electronic documents do not clutter desktops, they are easy to edit, and they can be easily indexed and stored.

In this chapter, we analyzed the content of 167 investor kits for precisely one reason: to assess if the items included in a REIT's investor kit could be produced in digital form. Having reviewed the content of 167 investors kits, we conclude that digital technologies - imaging, networks, electronic data interchange, wireless communications, multimedia, groupware, workflow software, inexpensive storage - all make it possible to transform every single document included in a REIT's investor's kit from its paper form to digital form, with exception of one item. The one item that cannot be transformed to digital form is a magnetic messaging board that attaches to a refrigerator door that ROC Communities Inc. includes in its investor kit. Aside from that item, every single item in a REIT's investor kit can be represented with bits.

In summary, the information that REIT's disclose in paper form are suited for digital disclosure. However, REITs should take into account the following

- The accuracy of the information disclosed in digital form should not diminish or change from that intended through paper-based disclosure.
- The completeness of the information disclosed in digital form should not be compromised by the hypertext environment of the Web.
- The appearance of the information disclosed in digital form should not disorient wired investors when they attempt to read it in digital form.

6. Digital Disclosure: Regulatory Framework

In 1995, a study by Straightline International Inc., an integrated marketing firm in New York, indicated that 38 percent of U.S. companies had Internet sites and another 39 percent expected to have them within two years. According to the results of the survey, many planned to use their sites for disclosure -- 42 percent of planned sites, in fact, were being initiated by the investor-relations department. (CFO December 1995)

In chapter five, we discussed how the contents of REIT investor kits can also be presented in digital form. However, digital disclosure presents a big challenge to regulators. Although, the SEC and state commissions are trying to foster the development of the Internet as a financing tool for legitimate businesses, the Internet is forcing the SEC and state commissions to reevaluate every facet of regulation. Nevertheless, the SEC is already an advocate of on-line disclosure and allows proxies, annual reports and other required disclosures to be provided electronically to wired investors. In an interpretive release on the use of electronic media, the SEC said it "enhances the efficiency of the securities markets by allowing for the rapid dissemination of information. Electronic media promises quicker, broader, cheaper, more widespread and equitable dissemination of information" (SEC Release No. 33-7233).

In this chapter, we review the most recent rules and regulations concerning disclosure of REIT information and then we provide REITs with examples of how to apply the rules and regulations.

6.1 Review of Rules and Regulations

6.1.1 Disclosure Requirements of REITs

There are currently seven Industry Guides the SEC uses to provide disclosure guidance to individual industries. Guide 5 provides disclosure guidelines for partnerships and REITs.

Real estate companies not exempt from the registration requirements of the Securities Act must file a registration statement (Form S-11) with the SEC. Form S-11 includes:

- A description of the business and properties of the real estate company and any subsidiaries;
- Financial information regarding the real estate company, including audited balance sheets and financial statements;

- Pending litigation, material legal proceedings and violations of law;
- A description of the real estate company 's financial condition, liquidity, and results of operation;
- The identity of officers, directors, and all significant employees and, in some cases, their compensation;
- A disclosure of principal stockholders, related party transactions, and all material relationships involving management, directors, and principal stockholders;
- A description of the risks of investment; and
- The prior performance or "track record" of the real estate company, or sponsor, of the new REIT.

Most REITs filing a registration statement under the Securities Act also become subject to the Exchange Act, under which the following reporting or disclosure requirements are imposed.

- *Form 10-K.* REITs must file an annual report on Form 10-K, updating much of the information on the REIT's registration statement and including audited financial information and a report on the financial and business condition of the REIT.
- *Form 10-Q.* REITs are required to file quarterly reports on Form 10-Q, including quarterly unaudited financial statements and management's analysis of the REIT's business and operations over the past quarter.
- *Form 8-K.* REITs are also required to file a special report (Form 8-K) following certain material events, such as the acquisition or disposition of any significant assets.

REITs are also required to make full and prompt public announcements of material facts regarding a REIT's business and financial condition.

Under the Securities Act, all formal filings are subject to review and are available to the public. To guarantee the integrity of all formal filings, REIT's must adopt internal controls designed to assure the adequacy and integrity of a REIT's financial statements, reports, and internal accounting procedures. Finally, to satisfy the SEC's policy in favor of full, fair, and timely disclosure some additional disclosure requirements include strict adherence to proxy rules and the distribution of an annual report, which in most cases is less comprehensive than the Form 10-K filed with the SEC.

6.1.2 Digital Disclosure

The WWW enables REITs to disseminate information to more people at a faster and more cost-effective rate than traditional distribution methods, which have been largely paper based. The SEC "appreciates the promise of electronic distribution of information in enhancing investors' ability to

access, research, and analyze information, and in facilitating the provision of information by issuers and others" (SEC Release No. 33-7233). The SEC "believes that, given the numerous benefits of electronic distribution of information and the fact that in many respects it may be more useful to investors than paper, its use should not be disfavored" (SEC Release No. 33-7233).

Until recently, accessing electronic publications was generally limited to institutional wired investors or large corporations who could bear the cost of expensive computer systems or the fees that financial on-line services charged. This is no longer the case. Currently, wired investors, both retail and institutional can access electronic publications through the WWW. Access to information through the WWW permits both institutional and retail wired investors to communicate quickly and efficiently with REITs as well as with each other. Use of the WWW allows REITs to rapidly disseminate information to wired investors and financial markets in a more cost-efficient, widespread, and equitable manner than traditional paper-based methods (Weiss 1995).

Since 1984, the SEC, through its Electronic Data Gathering, Analysis, and Retrieval ("EDGAR") system, has made filings available electronically through information resellers that have purchased the data from the EDGAR dissemination subsystem and created a variety of on-line and CD-ROM versions. (SEC Release No. 33-7233). However, recognizing the ability of the Internet and the WWW to allow retail wired investors access to information at the lowest possible costs, in January 1993, the New York University School of Business and the Internet Multicasting Service, a non-profit organization, received a grant from the National Science Foundation to make most EDGAR material available on the Internet. This grant expired on October 1, 1995. Nevertheless, on September 28, 1995, the SEC began packaging EDGAR filing through its own separate Internet service and assumed responsibility for making them available to wired investors via the SEC's Web site.⁶

Today, all REITs are required to file electronically through EDGAR. However, this only includes filings made with the SEC; REITs do not have to file electronically the documents that they must deliver to security holders or potential investors, such as prospectuses, tender offer materials and proxy or information statements. As of May 1996, approximately 20 REITs were providing wired investors information through the WWW.

6.1.2.1 Release No. 33-7233

On October 6, 1995, the Securities and Exchange Commission published Release No. 33-7233 which contains its views with respect to the use of electronic media for information delivery under the Securities Act of 1933, the Securities Exchange Act of 1934, and the Investment Company Act of

⁶ For reference, the Internet World Wide Web site address of the SEC is <http://www.sec.gov>.

1940. This release provides the guidance that was lacking for using electronic media under the federal securities laws and has opened the door for REITs to begin using the WWW for document disclosure.

In its interpretive release, the SEC noted that the extent to which required disclosure is made, as opposed to the medium for providing it, should be most important to the analysis of whether sufficient disclosure has occurred under the securities laws. Furthermore, the SEC believes that "the question of whether delivery through electronic media has been achieved is most easily examined by analogy to paper delivery procedures. According to the interpretive release, the SEC "would view information distributed through electronic means as satisfying the delivery or transmission requirements of the federal securities laws if such distribution results in the delivery to the intended recipients of substantially equivalent information as these recipients would have had if the information were delivered to them in paper form. (SEC Release No. 33-7233).

The SEC utilizes three criteria in analyzing electronic disclosure notice, access and evidence of delivery.

6.1.2.1.1 Notice

REITs providing electronic information through the WWW need to consider the extent to which the electronic communication provides timely and adequate notice to investors that information for them is available and, if necessary, consider supplementing the electronic communication with another communication that would provide notice similar to that provided by delivery in paper. Disclosure documents provided on an Internet Web site, require a separate notice to satisfy the delivery requirements unless the REIT can otherwise evidence that delivery to the investor has been satisfied or the document is not required to be delivered under the federal securities laws.

6.1.2.1.2 Access

REITs using the Web to provide wired investor with electronic delivery of disclosure documents must ensure that access is not so burdensome that intended recipients cannot effectively access the information provided. Furthermore, REITs must provide wired investors the opportunity to retain the information or have ongoing access equivalent to personal retention. A disclosure document posted on a REIT's Web Page must be accessible for as long as the delivery requirement applies. Finally, REITs must be able to make available paper versions of documents delivered in an electronic medium.

6.1.2.1.3 Evidence of Delivery

REITs providing electronic delivery of information through the WWW should have reason to believe that its site will result in the satisfaction of the

delivery requirements. Examples of procedures evidencing satisfaction of the delivery requirements include:

- Obtaining an informed consent from an investor to receive the information through the WWW coupled with assuring appropriate notice and access, as discussed above;
- Obtaining evidence that an investor actually received the information, for example, by electronic mail return-receipt or confirmation of accessing, downloading, or printing;
- An investor's accessing a document with hyperlinking to a required document; and
- Using forms or other material available only by accessing the information.

In summary, the Securities Act does not prescribe the medium to be used for providing information by or on behalf of REITs. As a result, the SEC believes that "delivery of information through an electronic medium generally could satisfy delivery or transmission obligations under the federal securities laws" (SEC Release No. 33-7233). The SEC believes that "the use of electronic media are an equal alternative to the use of paper-based media" (SEC Release No. 33-7233). Accordingly, information that REITs make available to their investors in paper form can also be delivered in electronic format. However, the SEC expects that paper delivery of information will continue to be made available by REITs "until such time as electronic media become more universally accessible and accepted" (SEC Release No. 33-7233). Having said this, the SEC recognizes that various offerings "may now be made exclusively through electronic means" (SEC Release No. 33-7233).

6.2 Examples of Digital Disclosure on the WWW

6.2.1 Securities Act

This section contains examples on how REITs can disclose their prospectus on the World Wide Web. The examples are based on rules and regulations dictated by the Securities and Exchange Commission in accordance with Release No. 33-7233. The SEC utilizes three criteria in analyzing electronic disclosure notice, access and evidence of delivery.

6.2.1.1 Consent for Electronic Delivery

Imagine that Chateau Properties Inc., a self-administered and self-managed equity real estate investment trust that owns and operates manufactured home community properties, places its prospectus on its Web site. Chateau then confirms by mail the sale of securities to investors and informs them that the prospectus is available on its Web site. In accordance with SEC regulations, Chateau provides investors the Internet

location of the Web site. If this was the case, Chateau would be violating the delivery requirements under the Securities Act because a REIT cannot assume all investors purchasing securities have the ability to access the prospectus via an Internet Web site. On the other hand, Chateau can confirm by mail the sale of securities to those investors who have consented to electronic delivery via its Internet Web site. A REIT can assume that an investor who has consented to delivery of a prospectus via its Web site has the ability to access the prospectus when given the Internet location of the Web site the prospectus resides in.

6.2.1.2 Confirmation of Electronic Medium

If a REIT is going to provide electronic delivery of its prospectus, it is important that it knows the electronic medium that an investor has selected for delivery. For example, if Investor Bob Sell consented to delivery of all future documents only through electronic mail, not by Web site access, Federal Realty Investment Trust, a self administered REIT that primarily invests in shopping centers, cannot only inform Bob Sell that its prospectus is available on its Internet Web Site. If Federal only provided the investor notice that its prospectus was available on the Web, Federal would not satisfy its obligation to deliver the prospectus. Although placing the prospectus on its Web site constitutes a form of electronic delivery, it is not the one that Bob Sell specified when he gave consent to Federal to deliver the prospectus in electronic form.

6.2.1.3 Revoking Electronic Delivery Consent

REITs must also beware of an investor who authorizes electronic delivery and soon thereafter revokes the consent. For example, imagine Investor Bob Sell is subscribed to an on-line system that does not provide him access to Felcor Suite Hotels, Inc.'s Web site; Felcor is a real estate investment trust established to acquire equity interests in all-suite hotels. As soon as he realizes, he notifies Felcor that he revokes his consent for any electronic delivery. Felcor would then be required to provide the investor with printed copies of any documents he would have otherwise received electronically. However, it is important to note, that an investor who revokes his consent to receive electronic delivery through a specified medium must allow a reasonable time for a REIT to take notice.

6.2.1.4 Relationship With Brokers and Web Content Providers

Release No. 33-7233 also applies beyond the relationship of a REIT and an investor. For example, Price REIT, Inc., a self-managed, fully integrated real estate investment trust, may decide it does not want to manage its Web site in-house and hires WCP, a Web content provider, to place its prospectus on its Web site. On the other hand, Investor Bob Sell e-mails Price REIT, Inc.'s underwriter, J.P. Morgan Securities Inc. and requests a prospectus. A representative of J.P. Morgan replies to Bob Sell asking if he would like the electronic or paper version of the prospectus. If Bob Sell

responds that he would prefer the electronic version via an Internet Web site, and the representative of J.P. Morgan sends him the Internet location of the web site WCP has set up for Price, this would satisfy J.P. Morgan's obligation to take reasonable steps to furnish to any person making a written request for a prospectus a copy of such prospectus.

6.2.1.5 Prospectus Distribution By An Exchange

In 1993, PIMCO Commercial Mortgage Securities offered 11,000,000 shares of common stock, par value \$.001 per share at an initial offering price of \$15 per share. The shares were offered through a group of underwriters led by Lehman Brothers Inc. PIMCO's shares were approved for listing on the New York Stock Exchange (NYSE). Imagine that instead of 1993, PIMCO was making its offering in 1996 and that PIMCO decided it would post its prospectus for sale of its common stock on its Internet Web site. Since PIMCO's stock would be traded on the NYSE, the NYSE requests 200 paper copies of PIMCO's prospectus. Rather than sending the 200 copies of its final prospectus to the NYSE, PIMCO provides the NYSE with the location of the Internet Web site where its prospectus could be found. Since not all investors who request information from the NYSE have access to the Internet, PIMCO's action would not be sufficient and it would have to supply the NYSE with 200 paper copies of its prospectus.

6.2.1.6 Sales Literature and Prospectus Disclosure on a Web Site

Release No. 33-7233 also applies to the joint electronic disclosure of a prospectus and sales literature. For example, imagine Kimco Realty Corporation, a REIT which is one of the largest owners and operators of neighborhood shopping centers, decides to place a copy of its prospectus on its Internet Web site. However, since the electronic prospectus will remain there throughout the period for which delivery is required, Kimco decides to place supplementary sales literature on its Web site. According to the SEC, sales literature, whether in paper or electronic form, is required to be preceded or accompanied by a prospectus. Therefore, as long as the supplementary sales literature and the prospectus can be accessed from the same menu, both are clearly identifiable, and they appear in close proximity of each other, the SEC would allow Kimco to post both the prospectus and the sales literature on its Web site.

6.2.1.7 Sales Literature in Remote Web Sites

Imagine Healthcare Realty Trust Inc., an equity real estate investment trusts that invests in income producing health care real estate, decides to post some of its sales literature in a health care forum on the WWW that is hosted by an organization in Harlingen, Texas. Healthcare Realty Trust's sales literature contains a hyperlink to its prospectus. While viewing the literature, an individual clicks on a box marked "final prospectus," and almost instantly the person is linked directly to Healthcare Realty Trust's Web site in Nashville, Tennessee and the prospectus appears on the person's

computer screen. Since the hyperlink function enables the prospectus to be viewed directly as if it were packaged in the same envelope as the sales literature, the SEC requirement that sales literature be preceded or accompanied by a prospectus is satisfied. As a result, as long as Healthcare Realty Trust provides a hyperlink that provides direct access to its prospectus it can post its sale literature anywhere on the Web.

6.2.1.8 Sending a Prospectus and Sales Literature via E-mail

Imagine Spieker Properties, a self administered and self managed equity real estate investment trust, sends an e-mail with a prospectus attached in one file, and supplemental sales literature in a separate file to potential investor, Tom Jones. The investor can access the sales literature and the prospectus with equal ease. Since the electronic delivery of the prospectus may be inferred even if the prospectus is not accessed, Spieker would satisfy SEC regulations.

6.2.1.9 Downloading or Printing a Prospectus and Sales Literature

Imagine Taubman Centers, a real estate investment trust, decides to post its prospectus and sales literature on its Web site. The site provides for the downloading or printing of the prospectus and sales literature. According to Release No. 33-7233, an investor would not be required to retrieve, download, or print a prospectus before viewing the sales literature. In addition, Taubman may rely upon a wired investor having accessed, printed or downloaded its prospectus to deliver supplemental sales literature to him.

6.2.1.10 Future Notices to Web Site Visitors

Imagine Vornado Realty Trust, a fully-integrated real estate investment trust, decides to place its prospectus on its Web site. For two weeks, 250 potential investors visit Vornado's Web site to review its prospectus. If a potential investor who visited the site does not purchase shares and the prospectus is subsequently amended, Vornado is not required to notify the potential investor of the amendments.

6.2.1.11 User Id and Password

Imagine that Associated Estates Realty Corp., a self administered and self managed real estate investment trust, requires potential investors to obtain a user ID and password before they can view their Web site. The process for obtaining the ID and password requires significant information from the wired investor and involves a delay of one day or even several days before the wired investor can access the Web site. Although the procedure imposes burdens in the process for obtaining access to the Web site, as long as these burdens are part of the process of providing access to all the information, including prospectus and supplemental sales

literature, and not burdens upon access to the prospectus that is delivered, Associated Estates Realty Corp. would be satisfying SEC regulations.

6.2.1.12 On-line Viewing vs. Downloading

On-line viewing is not a prerequisite to electronic delivery. As a result, if Beacon Properties Corporation, a self administered and self managed real estate investment trust, decided not to provide on-line viewing of its prospectus on its Web Site, but it allows a wired investor to download the entire prospectus, Beacon would satisfy SEC regulations.

6.2.1.13 Commissioned Reports Posted on the Web

There are times when a REIT commissions a report that it will provide to investors during a stock offering. For example, imagine that Crown American Realty Trust, a real estate investment trust that primarily invests in enclosed shopping malls, pays an investment advisor to write a report about its REIT. The advisor, a member of the MIT Center for Real Estate, writes the report and places it on the Center for Real Estate's Web site located on the Internet. According to SEC regulations, the amount the advisor was paid to write the report must be disclosed in the report regardless of whether it is in electronic or paper form.

6.2.1.14 Hyperlink Sequence

A prospectus must follow the sequence requirements established by the SEC. However, if the prospectus of the California Real Estate Investment Trust, a self administered real estate trust, was posted on the Web and it included a summary, which contains hyperlinks that allow a wired investor to move to later sections of the prospectus or to other documents (i.e., annual reports, etc.), the California Real Estate Investment Trust would still satisfy the SEC's requirements. If hyperlinks in the summary of a prospectus allow a wired investor to choose to view information out of sequence, the California Real Estate Investment Trust would satisfy the requirements of the SEC, as long as the main text does comply with the sequence requirement.

6.2.1.15 Terminating a Web Site

Imagine Brandywine Realty Trust, a Maryland REIT, has been providing wired investors its prospectus and decides to terminate the Web site. According to Release No. 33-7233, Brandywine may cease making its prospectus available through the Web site as soon as it no longer plans to rely on electronic delivery for satisfying its prospectus delivery requirements.

6.2.2 Exchange Act

This section contains examples on how REITs can disclose annual reports, quarterly reports, and other disclosure documents on the World Wide Web. The examples are based on rules and regulations dictated by the Securities

and Exchange Commission in accordance with Release No. 33-7233. The SEC utilizes three criteria in analyzing electronic disclosure notice, access and evidence of delivery.

6.2.2.1 Consent For Electronic Delivery

Imagine Essex Property Trust Inc., a self administered and self-managed REIT, decides to place its annual report on its Internet Web site. Essex then sends notice to all its record holders that its annual report is available on its Internet Web site along with the Internet location of the Web site and a telephone number that shareholders may call to request a paper copy. Similar to when a REIT electronically discloses a prospectus, Essex should not presume that all record holders have the ability to access the annual report via an Internet Web site. Therefore, absent other factors such as a consent form, or actual access by, a shareholder, posting of the annual report via Essex's Internet Web site would be insufficient to constitute delivery to all record holders. However, Essex may place the annual report on its Web site, and, at the same time, furnish paper copies to its record holders.

6.2.2.2 Notice To Shareholders

Imagine that on February 1996, a shareholder in Gables Residential Trust, a self administered and self managed REIT, requests all future corporate communications, including annual reports to shareholders, be delivered electronically through Gables' Web site. The consent form states that Gables' expects that its annual report will be available on its Web site on April 1, 1996. As expected, on April 1, 1996, Gables places its annual report on its Web site. Unlike the delivery of paper annual reports, where the mere appearance in the mail of such materials places the shareholder on notice, Gables would be required to notify its shareholder of the posting of its annual report. However, if Gables reasonably expects for other specific reasons, such as a history of communications with that shareholder, that the shareholder would have effective delivery of the information through the Web site, then the procedure could be acceptable.

6.2.2.3 Broken Computer

Imagine Tom Jones consents to delivery of all disclosure documents via Horizon Outlet Centers' Web site; Horizon is a self administered and self managed REIT, owner and operator of factory outlets. On April 1, 1996, Horizon provides notice to Tom Jones that its annual report and proxy soliciting materials are available on its Web site for its annual meeting scheduled to be held on May 5, 1996. On April 5, 1996, Tom Jones notifies Horizon that his computer is broken and requests a paper copy of the annual report.

Because Tom Jones' notice to the Horizon indicates that electronic delivery will be ineffective, Horizon should provide Tom Jones with paper copies of

the annual report and proxy soliciting materials within a reasonable time of his request. It is important to take notice, that Tom Jones does not need to withdraw his consent for electronic disclosure in order to receive the paper copies.

6.2.2.4 Quarterly Reports

Imagine Omega Healthcare Investors, a real estate investment trust that provides financing and capital to the health care industry, places its quarterly report to shareholders and Forms 8-K on its Web site and advertises the location of its Web site in the Wall Street Journal. The REIT takes no other action to deliver these materials to shareholders. Since there is generally no requirement to deliver quarterly reports to shareholders, this would be permissible under Release No. 33-7233.

6.2.2.5 Selection of Directors

Imagine Simon Property Group, a self administered and self managed REIT, places its annual report and proxy soliciting materials for the election of directors on its Web site and provides notice to all record holders that previously had consented to electronic delivery via the REIT's Web site. The record holders are instructed to print the proxy card, execute the proxy and then mail it back to the REIT. According to Release No. 33-7233, this would be consistent with the proxy rules.

6.2.2.6 Relationship with Investment Firms

Imagine J.P. Morgan solicits its customers who are beneficial owners of Irvine Apartment Communities, a self administered equity real estate investment trust, to determine whether they would like to receive Irvine's annual report and proxy soliciting materials electronically via the Internet rather than in paper. J.P. Morgan then informs Irvine that 100 beneficial holders would like to receive the materials electronically and 200 beneficial holders would prefer paper materials. If Irvine provides J.P. Morgan with the location of its Internet Web site where the materials are posted and copies of its paper documents for the 200 beneficial owners who do not wish to receive the electronic delivery, and J.P. Morgan then forwards the notice of the location of the electronic materials to those beneficial holders who consented to receive electronic delivery and forwards the paper materials to those who did not, this would be consistent with the proxy rules.

6.2.2.7 Terminating a Web Site

Imagine that Capstone Capital Corporation, a self administered and self managed real estate investment trust, has been providing wired investors its annual and semi-annual reports through its Internet Web site for one year, and decides to terminate the Web site. In the case of annual or semi-annual reports, these reports are usually available until superseded by a

later report. Therefore, Capstone can terminate the posting of the most recent report on its Web site when it is superseded by a new one. However, if Capstone was to terminate its Web site, Capstone would be required to provide shareholders, who received the report electronically, a paper version.

6.3 Conclusion

Without the proper disclosure of financial information, the cost of capital for REITs is undoubtedly higher. One of the purposes of disclosure is to reduce uncertainty and to provide useful information to investors. As we prepare for the beginning of a new century, the way REITs provide information to the market is changing. In general, traditional methods of disclosure have not kept pace with the rapid advances in technology. However, the SEC is already an advocate of on-line disclosure and allows proxies, annual reports and other required disclosures to be provided electronically to wired investors.

7. Digital Disclosure: finding REITs on the Web

Approximately 20 REITs have discovered the World Wide Web. As the community of wired REITs continues to expand, in principle, the Web will provide wired investors access to a broader spectrum of REIT information. However, to make this wealth of on-line resources truly useful to wired investors, we must forge a link between the distributed Web sites of REITs and the practices of wired investors who will use them. In this chapter, we are concerned with the time it will take wired investors to find REITs on the Web. To facilitate the location of REITs on the Web, we introduce REITSEARCH, a prototype of a spatial multimedia system to help wired investors find REITs on the Internet that match their diversification criteria.

Throughout this research, the time and the speed with which an investor receives or is able to access information about a REIT has been the most critical issue. We have provided evidence that suggests that digital disclosure reduces the time it takes for a REIT to provide information to wired investors. However, throughout this research, we have made two important assumptions: First, that wired investors know what REIT they wanted to get information on; and second, that wired investors know the location of that REIT's Web site. However, upon further review, a wired investor may not always have answers to these two questions.

The National Association of Real Estate Investment Trusts (NAREIT) already has a Web site on the WWW. Although the site provides general information on REITs, and there are plans to provide a database with information about individual REITs, NAREIT's site lacks a tool that matches wired investors with individual REITs. NAREIT's site has links to some of the REITs that have sites on the Web. However, there is no mechanism in place that serves as a filtering device to allow wired investors to narrow down the choices of REIT they would be interested in gathering additional information.

If REITs are going to begin to disclose information on the Web, it remains as important for wired investor to be able to find their sites quickly. Grice and Ridgway (1993) argue that in environments like the Web, where a wider range of movement and branching is permitted, "there is an increased need to help orient readers not only to their relative position within a body of information, but also to the relationship of their current position to other positions that may be of interest to them."

In this chapter, we review the design of REITSEARCH, a prototype spatial multimedia system developed at the Spatial Multimedia section of the Planning Support Systems Group of MIT's Department of Urban Studies and Planning. Under the direction of Dr. Michael Shiffer, research in the Spatial Multimedia Group specializes in providing spatial multimedia tools that can

aid the planning process. Spatial multimedia tools provide a method of interacting with planning tools using direct manipulation graphical interfaces.

REITSEARCH uses computer-based representational aids to facilitate the retrieval of information. Computer-based representational aids are digital images, sounds, movies, and text which when linked together allow the creation of a multimedia interface. Representational aids facilitate the development of Planning Support Systems that are easier to use by those who are not technically sophisticated.

Spatial multimedia systems have been demonstrated to be engaging tools that make complex information understandable to those who are not technically sophisticated. This is accomplished through the use of multimedia interfaces that use images, motion, and sound as representational aids. Spatial multimedia also affords associative linking which allows one to organize and browse related information in a manner similar to encyclopedic cross-referencing. (Shiffer, 1995b)

Many of the early applications of spatial multimedia systems have been hampered by an inability to form associative links with remotely accessible information. The issue of connectivity with remotely accessible information has recently been addressed through the maturation of the Internet and the WWW. This makes it possible for the globally-networked community to access this information in an associative manner. (Shiffer, 1995)

7.1 Searching For REITs on the Web

Every month, several more REITs go on-line and make available disclosure documents to investors with access to the WWW. Unfortunately, that more REITs are coming on-line does not mean that it is getting any easier to find them. The way in which wired investors find a REIT on the WWW is by looking them up with a search engine, a program that makes it easy to look up information on the WWW. There are several search engines on the WWW. However, there are three which stand out: Yahoo, Alta Vista, and Lycos.

Yahoo was founded by two Stanford University students in 1994. Yahoo breaks Web pages down into 16,000 categories. A wired investor can either search for a particular REIT, say, "Price REIT Inc.," or go to a series of lists that Yahoo has ordered by categories. REITs can get listed in Yahoo simply by asking. Editors of Yahoo review the site to decide if it is likely to be of value to their users. So far, about 250,000 have made it. Yahoo covers just a fraction of the material on the Web, but it tends to be high-value material.

Alta Vista is owned by Digital Equipment Corp. Alta Vista uses a "spider" program that wanders the Internet and tracks down every Web page it

can find - 21 million so far. A second computer uses the spider information to index every word on each of these pages. A third computer lets wired investors search this vast database.

Lycos was developed at Carnegie Mellon University in Pittsburgh, but it is now owned by CMG Holdings in Wilmington, MA. Lycos has managed to combine three different search systems. A wired investor can search the main Lycos database, which contains 25.8 million Web pages. For a narrower search, a wired investor can search a smaller database that features 40,000 of the most useful sites. Like Yahoo, this second database can also be searched by categories. Finally, if a wired investor wants to conduct a very focused search, a third database includes only sites that are selected as the "best of the best" by a team of reviewers.

Imagine a wire investor, which we will call Bill, who lives in McAllen, Texas, has no specific knowledge about REITs, yet is interested in diversifying his investments to include real estate. One day he picks up a local newspaper and finds out that two REITs, Asset Investors Corp. and Commercial Assets, Inc., have won a favorable mention from Peter Lynch, the former head of Fidelity's Magellan Fund. As he continues to read on, he begins to get an interest in REITs. However, he does not know anything about REITs.

Bill, an experienced Web user, decides to get on the Web and do some research about REITs. First, Bill decides to use Yahoo. He types in the search word, "REIT". To his surprise he only gets twenty five Web sites. Thinking that he has found a very focused list of Web sites to visit, he begins to go through the list. Dean *Reiter* & Associates, the full-service CPA firm providing quality tax and accounting services to small and medium sized businesses was listed. *Reiter* Revue International, a German breeding magazine was also listed. *Reitverein* Freudenaus, who apparently offers riding lessons was also on his list. Upon further review, Bill determines that Yahoo's list was not very useful.

Bill decides to use Alta Vista. Like with Yahoo, he types in the search word, "REIT". Even though Alta Vista handles about two million searches a day, Bill was surprised with its speed. It took Alta Vista only a few seconds to find 2,595 sites with the letters "REIT" and it produced a listing of 900 Web sites for him to review. Unfortunately, the list primarily had press releases from newspapers that are on the Web.

Thinking that he should give it one last try, Bill decides to use Lycos. Again, like he had done before, he types in the search word "REIT." This time, Bill gets as many Web sites as in Alta Vista, but, at least, Lycos break them up in groups. Lycos finds 501 Web sites with the search word "reit," 2,646 with the search word "reiter", 1,947 with the search word, "reiterate" and 1,855 with the search word "reiterated".

In the three searches that Bill performs, his query returns every web site on each database that contains the letter arrangement "reit" in its body. In

every case, the items returned contained both web sites about REITs and web sites that had little do with REITs. In addition, a web site featuring information on REITs may not have been discovered if the letter arrangement "reit" was not on it. Thus Bill realizes that he is missing many web sites on his topic and that not all of those that he had identified were relevant.

The previous example has identified another problem. Bill knew that he was interested in finding out information about REITs. However, there are several types of REITs. Bill could have started his search wanting to find retail REITs. However, by searching information on retail REITs, Bill would have ended up disregarding other types of REITs simply because he did not know they existed. Without additional information that provides Bill the full scope of alternatives it becomes a difficult task for Bill to narrow his search. To focus his topic, it would help Bill to know or be reminded that there are several classifications of REITs, which have properties in almost every state of the United States.

What happened to Bill, happens too often when a wired investors want to find a REITs on the WWW. The two examples discussed illustrate some of the possible problems that can prevent Bill from learning more about REITs. Because of such problems, individuals, like Bill, often cannot successfully get informed without receiving help from an investment advisor or contacting REITs via more traditional means, a telephone call or a letter.

7.2 Web Consortium

Given that problems like the ones discussed exist, how can we help Bill and other like him find REITs on the Web? Or better yet, how can we help REITs get noticed or found on the Web so wired investors like Bill can visit their Web sites?

In order to effectively market products and services on environments like the Web, REITs will have to form a Web consortium - large groups of REITs that pool their resources to provide centralized access to large numbers of wired investors. (Libey, 1993) REITs that become part of these Web consortiums would then be linked together by a centralized or common database that would be interactive with millions of wired investors (See Figure 29). NAREIT, is the natural home for the REIT Industry's Web consortium. However, currently NAREIT's web site is more like a pamphlet of the REIT Industry and not an on-line aid that matches wired investors with REITs.

A Web consortium is a viable alternative for REITs considering organizational design on the WWW. When a wire investors searches for information on the Web, they have to wade through a long list of worthless sites because the most popular search engines do not give individual REITs

a specially prominent position in their listings. A Web consortium does away with the need for each REIT to try to gain prominence in the eyes of search engine editors and depends on the interaction among the Web consortium and the rest of the Web.

The idea of a Web consortium derives from a trend towards more flexible organizations that began to be documented in the academic literature since the early 80s. Miles and Snow (1984), Powell (1990) and Thorelli (1986) were among the first to document how new organizations were forming relationships among independent organizations. In the Web, at the present time, no one model can serve as an example for a Web consortium of REITs. In many respects, however, the Japanese keiretsu can be thought as the predecessors of Web consortiums.

The best visual image of a Web consortium is a wheel, where the spokes are "knowledge links" between a central organization at the hub and its members around the rim. At the hub of the wheel is a tool that provides the linkages that bind together wired investors with REITs (See Figure 29). The hub is also responsible for establishing priorities and managing the linkages that define the consortium. (Badaracco, 1991)

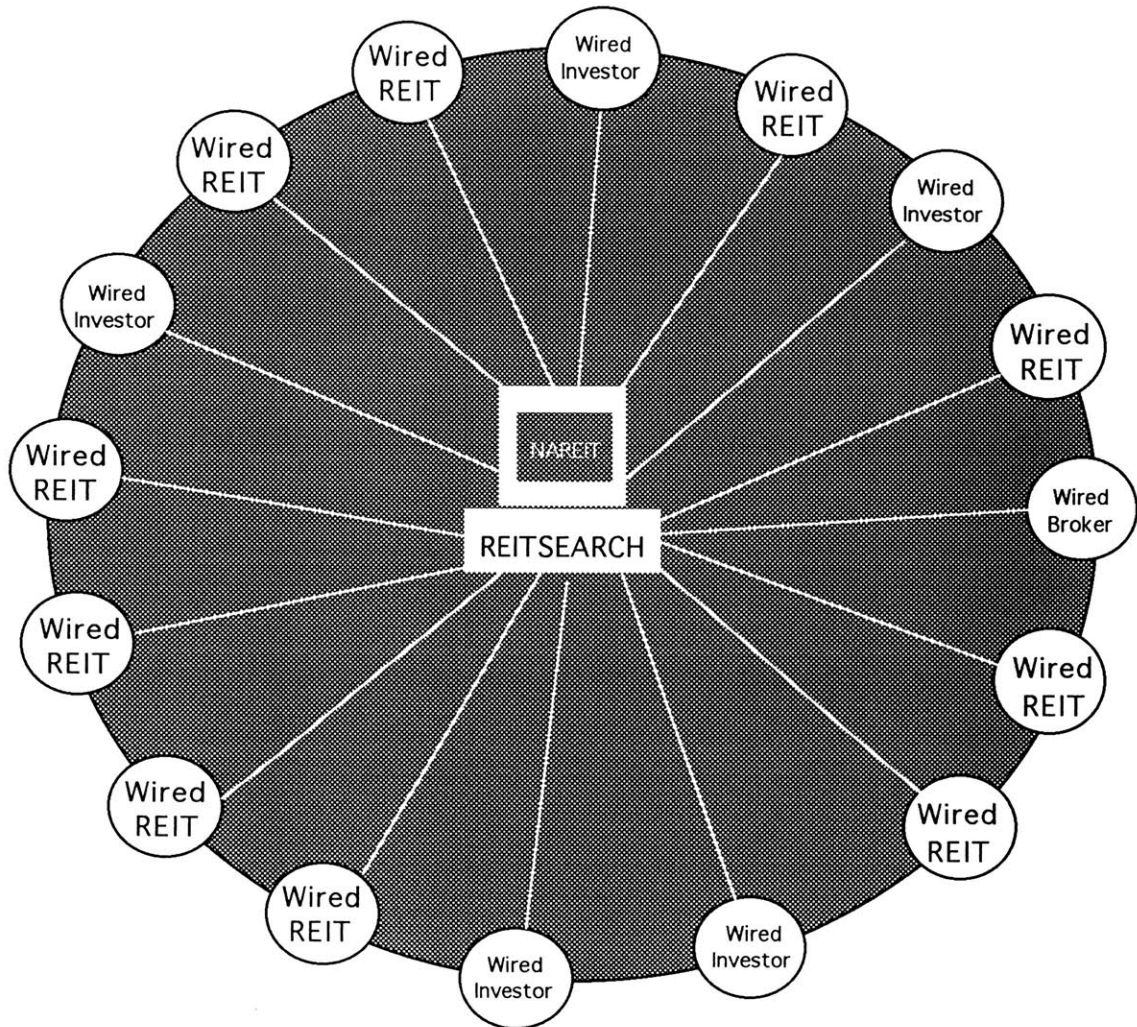
Over the past several months, REITs have preferred to venture into the Web on their own. On the other hand, a Web consortium of REIT would use the collective assets of REITs located throughout the United States. The various members of the consortium would recognize their interdependence and would be willing to cooperate with each other - all to maintain a prominent position within the Web. (Miles and Snow, 1992)

7.3 Defining the Linkages

The value of the information REITs disclose to investors lies exclusively in its usefulness to investors. Investing in REITs, is not merely a collection of facts about properties; investing in REITs is a process, a set of ways of discovering things about the portfolio and management of a publicly traded real estate company. Not surprisingly, because they are people, investors differ; they differ in the types of questions they are comfortable asking, in their skills with particular methods, in the way they value assets, and in how they interpret information.

Investors employ a variety of methods in making valuations of REITs. Diverse methods are necessary because different investors analyze different things. However, most investors value REITs on the basis of free cashflows, discounted back to a net present value. By using this technique, investors avoid the distortions caused by accounting conventions. A calculation of future cashflows, rendered back to a Net Present Value, avoids the distortions of accounting adjustments which bear no relationship to the underlying economic facts.

Figure 29. A REIT Web Consortium



Investors employ diverse criteria when valuing a REIT. However, Nagy and Obenherger (1994) have identified seven relatively homogenous groups of variables that influence individual investor behavior. The seven factors identified by, Nagy and Obenherger (1994) are:

1. The Neutral-Information Factor: Includes variables like coverage in the financial and general press recent stock index returns and recommendations by investment advisory services. Each of these variables represents an outside source of information that is perceived to be unbiased. None of the variables was ranked important by investors in the aggregate.
2. The Accounting-Information Factor: Includes the firm's financial statements, data found in annual reports and prospectuses, the results of valuation techniques (e.g., P/E and market-to-book) and expected corporate earnings. Expected earnings and the condition of financial statement--were ranked as highly important to investors.
3. The Self-Image/Firm-Image Coincidence Factor: Includes a firm reputation, firm status, feelings about the firm's products and services, and perceived ethics of the firm. Each of these variables is a value statement about the firm, generated by the investor. Variables in this grouping all ranked high as investment considerations.
4. The Classic Factor: Includes expected dividends, affordability of share price, tax consequences and risk-minimization. Surprisingly, these variables received mediocre ratings by investors, despite their dominance of the economic foundations of most theories of investor behavior.
5. The Social-Relevance Factor: Includes the firm's environmental record, a substantial presence near the potential investor's residence and international operations. Although such corporate attributes have been highlighted by the financial press, none of these variables was judged by more than 5% of the sample to have a significant influence on the investment decision.
6. The Advocate-Recommendation Factor: Includes purchase recommendations from brokerage houses and individual stock brokers, recommendations from friends or coworkers. Although many investors obviously rely on professional expertise, most investors in the sample are apparently wary of these channels.
7. The Personal-Financial-Needs Factor: Includes competing financial needs, period of time before invested funds will be needed for other purposes, and diversification requirements. Of these items, diversification needs was the second most important criterion (after expected earnings) for individual investors. The other variables in this factor were of less importance to respondents.

Since the hub of a Web consortium of REITs is also responsible for establishing priorities and managing the linkages that define the consortium, a variable of analysis that would differentiate among REITs

needs to be chosen in order to be able to establish links between the hub of the consortium and its members.

Nagy and Obenherger (1994) identified seven relatively homogenous groups of variables that influence individual investor behavior. Among the seven groups of variables that influence individual investor behavior, diversification needs was the second most important criterion, after expected earnings, for individual investors. As a result, diversification, by geographic region and property type, is a well suited candidate that can serve as the variable of analysis that would be used to establish links between the hub of the consortium and its members.

Geoprocessing is the ability of computers to store and map data containing location information. Geographic information systems (GIS) made possible by geoprocessing facilitates the creation of a spatial multimedia system. Geographic information systems absorb related mappable data from other sources and enable the location of REITs and their properties to be quickly mapped. From such maps, a wired investor can select a REIT and then if the REIT is a member of the consortium, be linked to its Web site.

Twenty-nine REITs agreed to participate in a prototype spatial multimedia system properly named REITSEARCH. In REITSEARCH, longitude and latitude coordinates were used as location variables to map 1420 properties. The maps were then incorporated into the interface of REITSEARCH. With the help of REITSEARCH, wired investors can find a REIT that best suits their diversification requirements both by property-type or by geographic region.

7.4 REITSEARCH

It must be remembered
that there is nothing
more difficult to plan
than the creation of a
new system.

Niccolo Machiavelli
The Prince

7.4.1 Introduction

To design and develop REITSEARCH, many different designs were explored in the development of spatial multimedia systems. The ways in which the functionality found in these systems was represented within the interface varied greatly. Such differences raised issues about how REITSEARCH should be designed, what functionality should it include and how it should be represented. Furthermore, it was determined that merely including the

appropriate functionality would not ensure that wired investors would effectively take advantage of it. As a result, it was concluded that in order to develop a tool that would be useful for wired investors, it was important to represent functionality in a manner that was both convenient and usable.

On-line information providers are widely available on the WWW. Their web sites often contain raw data, but an increasing amount contain entire documents. Most of these sites allow individuals to retrieve various types of information. For instance, if an individual is interested in demographic data for the city of Boston, demographic data available through the U.S. Bureau of the Census Web site can be retrieved.

Unfortunately, often, individuals encounter a wide range of problems when attempting to retrieve data from the web site of an information provider. For instance, an individual visiting the US Bureau of the Census web site may know the city he is interested in but may still be unable to determine how to retrieve data for that city alone. This may be because he has not been able to determine what is the correct syntax that is required to retrieve information. If he is interested in the city of Boston, he might type in Boston. If, however, the system expects the city's name to be entered using census tracts then the search will be unsuccessful. On the Web, even seemingly simple errors of this sort are often difficult for an individual to detect, let alone correct on his own (Janosky, Smith, and Hildreth 1986).

To develop a system that would help wired investors find REITs on the Web, it was critical to be able to find effective ways to represent system functionality within the system's interface. Furthermore, these representations, would have to be consistent with the tasks a wired investor would want to perform.

In developing REITSEARCH, the interactions of individual investors and investment advisors were used as a guide to identify the knowledge base the system would require to be useful. Then, since some of the problems discussed earlier suggested that it is not enough to provide the user with powerful search tools, REITSEARCH was developed to provide functions in an easy to understand manner. The implementation of these functions was guided by the use of representational aids.

Computer-based representational aids are digital images, sounds, movies, and text which when linked together allow the creation of a multimedia interface. Representational aids facilitate the development of spatial multimedia systems that are easier to use by those who are not technically sophisticated.

One explanation for the use of representational aids is that traditional knowledge representation schemes (i.e. hierarchies, relational databases) do not seem to fully capture the richness and diversity of REITs. Representational aids, when used in information retrieval, attempt to better

represent the variety of options available to wired investors in hopes of improving the utility of retrieval systems (Robertson 1981, Bush 1945, Bush 1967). Representational aids can provide more sophisticated explanations and thus add richness to REITSEARCH. For example, representational aids allow REITSEARCH to display pictures of properties that allows wired investors to make graphical comparison of properties.

7.4.2 Reference vs. Investment Advice

Traditionally, an investor wanting to diversify his investments into real estate, and who wants to learn more about real estate investment trusts would hire an investment advisor to assist him. An investment advisor, acting as a consultant, would provide a range of services to the investor, from helping him learn about REITs and refine his area of inquiry to locating specific sources of information on individual REITs.

The assistance that an investment advisor would provide an investor is invaluable as an investor attempts to learn more about REITs. Unfortunately, hiring an investment advisor is not always an option. Furthermore, an investment advisor is not always there when you need him. As a result, REITSEARCH incorporates the knowledge of an investment advisor into a spatial multimedia system that can be accessed through the Web.

The goal of REITSEARCH is to offer Bill and individuals like him assistance similar to that which would be provided to them by an investment advisor. However, REITSEARCH is not intended to provide investment advice by providing information on earnings or dividends or what REIT best matches an investor's financial portfolio. The goal of REITSEARCH is not to judge REITs. REITSEARCH does not make an investment recommendation. REITSEARCH is intended to serve as the hub for a Web consortium of REITs. Therefore, the system's goal is to serve as a reference tool for information seeking investors wishing to locate a REIT within the Web that matches their diversification criteria.

7.4.3 Target Population

To make use of DOT requires access to the Internet. It is assumed that wired investors will be familiar with computers currently available in any platform (IBM, Macintosh, UNIX) or at the very least that they be mouse literate. It is also assumed that these persons will have received at least a short tutorial on the use of the WWW. Despite the fact that REITSEARCH contains information on real estate investment trusts, no previous or special knowledge of real estate or real estate investment trusts is necessary to successfully use REITSEARCH.

7.4.4 Interface

Grice and Ridgway (1993) suggest that in the past "information was seen as a linear flow of thought in which the material we needed was imbedded,

and it was the reader's task to pick the information from its context. Further, it was often assumed that readers read to learn and retain information and that they paid enough attention to context to understand what was meant." However, Grice and Ridgway (1993) argue that the "new view of information is more like a question-and-answer session. Information-seekers expect a selection process of some kind to lead them to the right information; gathering information is seen as a process external to the information." (See Figure 30.)

One of the most important considerations in the development of spatial multimedia systems is the development of an easy-to-use interface (Stecklow, 1989). REITSEARCH was designed so wired investors would only need a simple conceptual model of the system in order to interact with it. The simplest form of the conceptual model for REITSEARCH is:

"To retrieve information, I simply click on an image. Once I click on an image, REITSEARCH shows me what it has on file. If I need help identifying what information is on file, REITSEARCH provides graphical representations of the information available on the system."

A more complete model also contains a comprehensive matrix that combines the categories of information available on the system. This component of the model is critical because it provides the user a full spectrum of all his options (See Figure 31).

One way to make a system more flexible and easy-to-use is to offer different styles of interaction. REITSEARCH allows the user to learn more about REITs either by going through Selection Assistance or by selecting them with a mouse from the comprehensive matrix of all property types. Some wired investors have a strong preference for one style over another. Providing a choice accommodates that preference.

7.4.4.1 Familiar Context

One way to help wired investors use REITSEARCH was to design displays that suggested the contents of the system (Carroll and Thomas 1982). In REITSEARCH, icons of property types and geographic regions were used to provide wired investors with images that are familiar to them. Familiar images help wire investors recognize the information they know and identify the kind of information that is available and can be accessed.

Representational aids allow the design of an interface that takes advantage of the mental pictures of a wired investor. Representational aids make the system easier to use and helps wire investors remember how to use the functions of the system. This is specially important for wire investors who will be using the system infrequently.

Representational aids in the form of icons and images were used to allow recognition of the information that is available on the system. To provide a

feeling to wire investors that information is being accessed and retrieved, however, transitory cues were used (Lewis 1986). What the user sees is a very obvious change in the information that is available whenever a new icon is selected. What the user feels, however, is that he has come closer to the information he needs. The previous page is first erased and then a new page is generated that is an enlargement of the icon just clicked. This obvious transitory sequence implicitly tells a wired investor that the information represented by the icon will be displayed as soon as he selects that icon with the mouse.

7.4.4.2 Representation of the REIT Industry

While attempting to gather information on REITs, some investors fail to take into account the geographic region where they own and operate properties. In order to reduce this problem, in REITSEARCH not only are property types classified, but the geographic regions where they REITs are located and where they own and operate properties are also separated into distinct categories consistent with the four standard regions for real estate investment analysis used by NACREIF: east, west, midwest and south.

In addition, explicit sub-categories are provided to help the user identify states in which REITs own and operate properties. As discussed earlier, one of the main activities of an investment advisor would be to help a wired investor explore his interest in REITs. Included in that task is making explicit the structure that characterizes the REIT Industry and the organization of the available data. Such information is crucial if an investor is to successfully identify a REIT he would like to invest in.

Just as representational aids make clear to a wired investor what information is available on the system, representational aids make it clear to a wired investor how the REIT Industry is organized. For example, a series of icons that represent retail REITs in different regions provide wired investors a way to describe the diversification of retail properties.

The assumption that users are fully aware of their topic and can easily express it using natural language is often incorrect (Carroll and McKendree 1987). Many individuals cannot describe a REIT they are interested in either because they do not know what are reasonable descriptors of a REIT or because they are not sufficiently familiar with REITs. With REITSEARCH, because the organization of information has been made explicit, a wired investor can use the system to learn about REIT types. Such knowledge helps a wired investor both to learn about the REIT Industry and about specific REITs.

7.4.5 Assistance Feature

When a wired investors logs into REITSEARCH, he may have little knowledge of the REIT types he would like to learn more about. For instance, Bill wanted to learn more about retail REITs but did not know much more. One way REITSEARCH assists the user is by providing a comprehensive matrix of available topics from which to choose.

REITSEARCH encourages a wired investor to define the REITs he would like to learn more about by stepping through a hierarchy in a top down fashion. Some researchers have suggested that this organization is closer to the structure of human thought processes than other representations (Thompson 1971). At a minimum, such an approach helps a wired investor map his knowledge of the topic into the organization of the subject area as represented in the knowledge base. However, REITSEARCH also provides a wired investor the opportunity to jump to other areas no matter where he resides within the hierarchy. This direct access to new areas of interest eliminates a potentially tedious top-down traversal through a hierarchy to reach new information in which a wired investor has developed an interest.

REITSEARCH is sometimes like a set of layered footnotes. It has the advantage of electronic links to make the footnotes easy to access and easy to navigate. Essentially, however, the terms at which a wired investor jumps are discussed and amplified in the section he links to. When investor is satisfied with the information he has found, REITSEARCH allows him to return to the starting point, as in a book. (Grice and Ridgway, 1993)

REITSEARCH also helps wired investors that possess some knowledge about REITs. If a wired investor knows what property type he wishes to learn more about but does not know in what regions of the United States REITs have that particular property type, he can use the Selection Assistance that is provided by REITSEARCH. Selection Assistance provides a comprehensive listing of the properties that each REIT has in each geographic region. Once a geographic region is identified, a wired investor can access digital photos of properties and a profile of the REIT who owns them. If the wired investors wishes to learn more, he can link to the REIT's Web site.

7.4.6 Active Exploration Feature

One service provided by an investment advisor is that of focusing the investor's attention on only those investment options relevant to his area of interest. In the case of real estate, once an investment advisor explains to his client the organization of the REIT Industry, as represented by the information available, the client can choose to learn more about the REITs he finds most interesting. For instance, if Bill wanted to learn about retail REITs first, the investment advisor would no longer discuss residential REITs. Instead, he would focus Bill's attention on the variety of retail REITs, which will be far fewer in number than those for all possible property types. Thus an investment advisor helps Bill use his time efficiently by suggesting only REITs relevant to his interest.

The knowledge base in REITSEARCH is intended to replicate an investment advisors knowledge of the REIT Industry. REITSEARCH uses this knowledge base to implement a support function to help wired investors like Bill find the REITs that best fit their diversification criteria.

For example, lets again consider Bill. We have said that he is interested in learning about retail REITs first. To learn more about retail REITs he would do the following. First, he establishes the context in which he is interested by clicking on the icon that represents retail REITs. Next, by selecting the box for the east with the mouse, he makes it clear that he wants to know what retail REITs are in the eastern part of the United States. At this point, REITSEARCH by default shows a matrix of the retail REITs that have properties in the eastern part of the U.S. This pruned matrix only displays retail REITs in the east and therefore focuses Bill's attention on only those entries relevant to the context he has established.

Similarly, Bill can select other property types, such as residential REITs or industrial REITs. Such functionality allows REITSEARCH to serve as a tool for exploration.

7.4.7 The Future of REITSEARCH

Although it is easy to amass the material required to create a prototype, it is more challenging to get all REITs to participate and create a share resource that is useful to wired investors. Many efforts similar to REITSEARCH have fallen apart without an individual's single-minded devotion to starting them, keeping them going, and maintaining them. Without this champion, tools like REITSEARCH slowly die and become irrelevant.

With 37 million people already having access to the WWW, it is difficult not to imagine that wired investors should soon be able to actively download financial data and conduct their own financial analysis on individual REIT. Rather than wait for wired investors to demand WWW-based resources, REITs must put their strategies into place and support a Web consortium with tools like REITSEARCH.

Up until now, most Web sites have sold adds based on the number of people who see them, just the way newspapers and TV ads are sold. Each "hit," or individual user access, counts as one pair of eyeballs. The cost per thousand viewers is usually around \$20 on a Web site. However, REITSEARCH is not intended to be a newspaper or monthly newsletter of REITs.

REITSEARCH is intended to be a tool for the hub of a Web consortium of REITs. To maintain the hub, and tools like REITSEARCH, member REITs could support the consortium on a "click through" basis, which means REITs would pay a fee to the consortium for wired investors who actually click on an icon within REITSEARCH that takes them to their own Web site. In addition,

to add pictures of a REIT's properties to the system, a REIT could be asked to pay a processing fee.

7.5 Conclusion

Centralized locations are needed that can help wired investor filter information about REITs. A Web consortium of REITs, with tools like REITSEARCH, is one model of what these centralized location can be like. NAREIT is the natural home of a Web consortium, but only through providing tools that actually help wired investors will NAREIT's Web site gain the prominence that web search engines require to give it a high listing when wired investor search for REIT information. REITSEARCH is a prototype of such a tool. Tools like REITSEARCH can play a major role in facilitating the process by which we can help wired investors like Bill find wired REITs on the Web quickly.

Figure 30. REITSEARCH: A General Model

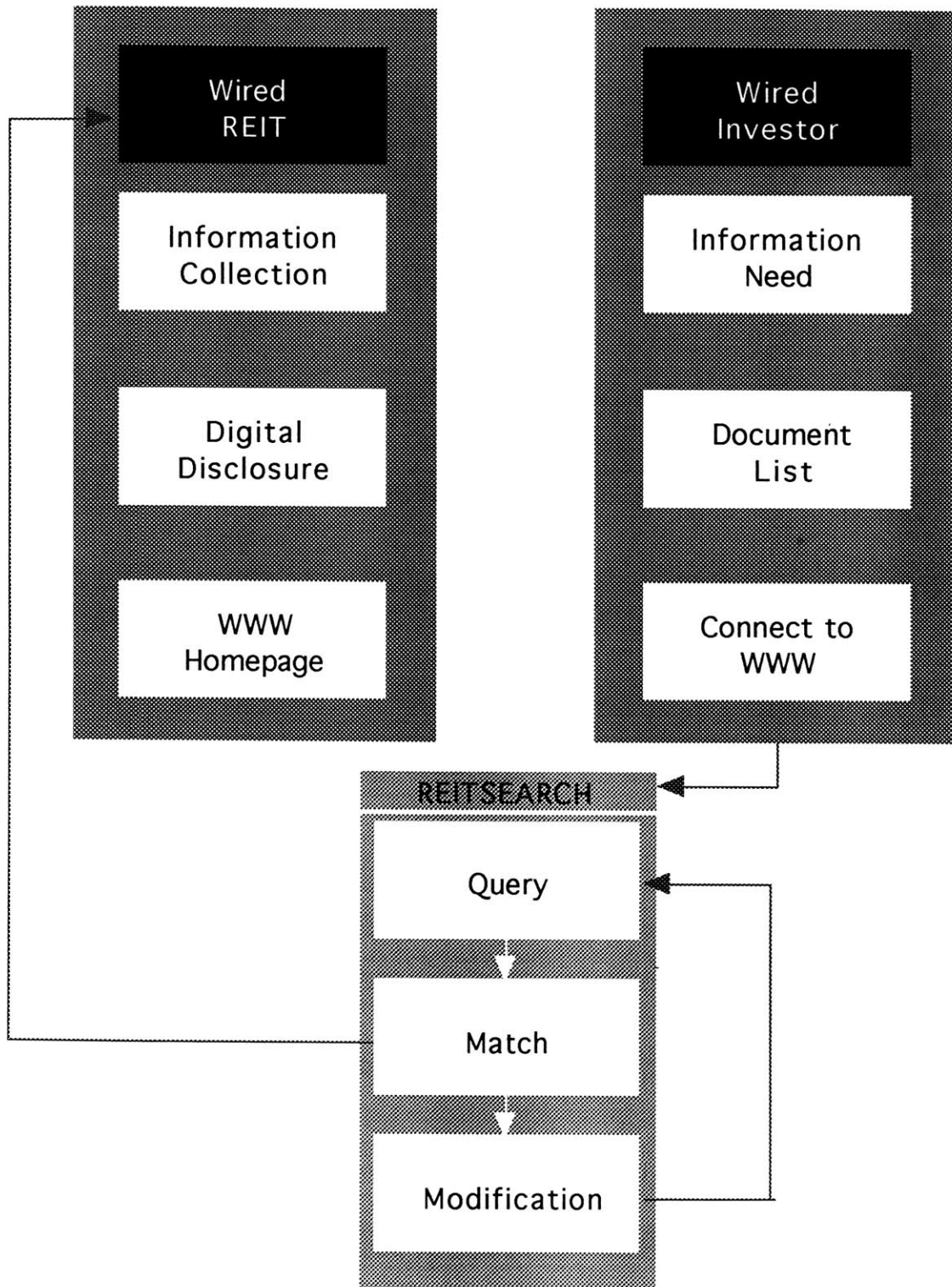




































Figure 31. REITSEARCH: Comprehensive Matrix

<div style="display: flex; justify-content: space-between;"> PROPERTY-TYPE </div> <div style="display: flex; justify-content: space-around; margin-top: 10px;"> <div style="text-align: center;">  RES Residential </div> <div style="text-align: center;">  RET Retail </div> <div style="text-align: center;">  OFF Office </div> <div style="text-align: center;">  IND Industrial </div> <div style="text-align: center;">  HEA Health </div> <div style="text-align: center;">  HTL Hotel </div> </div>	Residential	Retail	Office	Industrial	Health	Hotel
<div style="display: flex; justify-content: space-between;"> REGION </div> <div style="text-align: center; margin-top: 10px;">  WEST </div>						
<div style="text-align: center; margin-top: 10px;">  MIDWEST </div>						
<div style="text-align: center; margin-top: 10px;">  EAST </div>						
<div style="text-align: center; margin-top: 10px;">  SOUTH </div>						

8. Conclusion

Our habits often make it hard to accept new ideas and exploit new opportunities. However, ever so often, new ideas begin to take hold. Chapter one of this research represented the first stage of a paradigm shift. It was in chapter one where we questioned the prevailing wisdom and suggested that the traditional ways of providing information to the market were slow and inefficient. Chapter two and chapter three represented the second phase of the shift. It was in these chapters that we provided evidence that the paper-based method used for disclosure was slow and inefficient. Finally, to complete the shift, in chapter four, five, six and seven we were willing to entertain new concepts and used new methods and we suggested that digital disclosure is a legitimate alternative to paper-based disclosure.

8.1 Phase 1: Initial Propositions

For many years, REITs have operated with a silent partner, whom they trust delivers their data on time to their investors: the U.S. Postal Service (USPS). Furthermore, they have relied on a response-per inquiry system to prepare and package investor kits that is labor intensive, environmentally negative, and that requires excessively complex and inefficient preparation procedures.

Today's technology provides REIT managers with the opportunity to position their REIT so it can interact with future investors and current shareholders when any of these requests information, not on a per-order basis, but in real time and over a long and profitable period of time. To accomplish this, REITs must focus on time in order to give their investors what they want when they want it.

In the early 1980s, Japanese firms demonstrated the power of a new dimension of competitive advantage: fast response time. Japanese companies became formidable competitors because they learned to compress the time needed to make and distribute products, and simultaneously reduced the time required to develop and introduce new ones. Their ability to offer a broad product line, target a wide spectrum of market segments, and increase the technological sophistication of their products has been nothing short of revolutionary.

The time-based disclosure techniques that REITs can adopt are a powerful means to gain a competitive advantage. In the future, REITs with an ability to satisfy requests for information from wired investors faster should draw investment capital from their competitors who have not dedicated

themselves to providing information to their wired investors faster than anyone else.

For wired investors, one of the most precious resources is time. However, another priceless resource is knowledge. To make an investment decision, wired investors want to be able to have all the information they need, when they need it. Many industry publications are published every week, but there is hardly the time to read them all, confirm the information, and make an investment decision on-time. Furthermore, although wired investors are surrounded by televisions, radios, computers, telephones, and fax machines, with only 24 hours in a day, it seems almost impossible to catch everything that is relevant when trying to determine which is the best REIT to invest in. That is why wired investors are more concerned with the quality of the information they receive from a REIT than they are with the quantity.

The vast amount of information available in the marketplace and the marketspace defines the business and market environment within which a REIT operates. The rapid growth of the WWW has not yet touched the REIT community in full force. Nevertheless, REITs must not pass up an opportunity to increase the amount of information available to wired investors through the WWW. However, they must do so without making it more difficult to sort through what is relevant and what is not. The WWW has opened a wide range of possibilities for REITs. To take advantage of these opportunities, REITs must find ways to provide information to wired investors that are not only timely, accurate and consistent, but also in a format which can be used and combined with other data.

Wired investors who strive to diversify their real estate investments need information about the actual spatial distribution and property type distribution of the portfolios of REITs. The REIT universe is expanding very rapidly. In this changing environment, wired investors are lacking a system that allows them to constantly monitor the changing pattern of REIT investments. There is currently no system on the WWW that serves as a comprehensive on-line real estate aid that enables wired investors to track the portfolios of REITs. Furthermore, there is no filtering system on the WWW that allows wired investors to choose from a selection of REITs and to eliminate those that do not fit into their investment criteria, based on property type or geographic region. A comprehensive on-line real estate aid is needed to link REITs to wired investors.

8.2 Phase 2: In Need of a New Paradigm

It was suggested that before it could be denied that REITs had fast response times to a request for information, a formal evaluation needed to be performed. To accomplish this, it was determined that the best way to learn if REIT's responded on-time to a request for information, was to go

through the process itself. A mailing was made, requesting an investor kit, to a sample population of 237 REITs.

The on-time response rates to a request for information, among the separate sub-populations created for this analysis, were highest among:

- *Geographic Cluster:* REITs in the midwest (65%).
- *Property-Type Cluster:* Health (55.6%) and Residential (51.8%).
- *Exchange Cluster:* REITs trading in the Over-The-Counter Markets (51.4%).
- *Employee Cluster:* REITs with more than 25 employees but less than 100 (52.8%), REITs with more than 500 employees (52.6%) and REITs with more than 100 employees but less than 500 (53.3%).
- *Investor Cluster:* REITs with less than 500 shareholders (53.0%).

In conclusion, only one out of every two REITs responded on-time to a request for information. This suggests that at least 50% of the REITs that make up the list of publicly traded REITs can improve their response time to an investor's request for information.

If a response for information arrives late, it might not always be a REIT's fault. However, speed in internally processing investors' demands for information is not enough. Investors care only about the total cycle time from start to finish - from when their need for information arises to when their request for information has been satisfied. Investors are not impressed by short processing cycles on the part of a REIT if the postal service makes response time slow. Time consumed anywhere in the process from the request for information on through to processing and delivery of that information is equally valuable. Therefore, time squeezed from any part of the process has the same value to investors. Applying time-based disclosure means REITs must shrink the entire process by time compressing activities that lie both inside and outside a REIT's walls.

I believe strongly that we have to develop a sufficiently dynamic and reliable process for anticipating and responding to investor's needs. A system needs to be developed that ensures that high quality information is distributed on a timely basis to investors. The observational study conducted in chapter two and the survey conducted in chapter three have shown that there is a lot of room for improvement among REITs. Fortunately, where there is a will there is a way. Sixty (71.4%) of the respondents said they manage information as a competitive tool.

8.3 Phase 3: A New Paradigm

The WWW is no longer a futuristic idea written in a science fiction novel. The World Wide Web as accessed through a browser such as Mosaic or Netscape, is a multimedia environment that allows information to be presented as a combination of text, sound, still and animated graphics and video.

On the WWW, the potential exists for investor kits to be interactive packages of information, created to help wired investors find needed information quickly. Furthermore, the potential exists for on-line presentations that teach wired investors more about the attributes of individual REITs. Through the WWW, the potential exists for wired investors to get comfortable with a REIT so in the future they can invest in it.

With 37 million people already having access to the WWW, it is difficult not to imagine that wired investors should soon be able to actively download financial data and conduct their own financial analysis on individual REIT. Rather than wait for wired investors to demand WWW-based resources, REITs must put their strategies into place so that when the times comes they are ready to meet investor demand.

To summarize, the World Wide Web appears to provide REITs with the following opportunities:

- A cost effective opportunity to provide potential investors access to information.
- A cost effective opportunity to provide shareholders 24-hour access to information.
- A cost-effective opportunity to provide timely updates of information.
- A cost-effective opportunity to provide customized information.
- A cost-effective opportunity to provide information in an environmentally friendly way.

However, all of this does not mean that paper based disclosure documents will disappear. The SEC has made it clear that since not everyone has access to the Internet, REITs will need to continue to provide paper based disclosure documents. To some extent, REITs will need to continue to print the same number of copies of their annual report and other disclosure documents. However, digital disclosure provides an opportunity to reach a wider audience in a cost effective manner. For an industry that needs to increase the size of its investor base this can only be a winning proposition. As the capabilities of display screens improve, as the cost of digital transmission continues to fall, and as the processing power, memory, and

software of personal computers improve, REIT can only benefit from learning how to distribute more of their disclosure documents with electronic devices rather than with mechanical ones.

Centralized locations are needed that can help wired investor filter information about REITs. A Web consortium of REITs, with tools like REITSEARCH, are one model of what these centralized location can look like. NAREIT is the natural home of a Web consortium, but only through providing tools that actually help wired investors will NAREIT's Web site gain the prominence that web search engines require to give it a high listing when wired investor search for REIT information. REITSEARCH is a prototype of such a tool. Tools like REITSEARCH can play a major role in facilitating the process by which we can help wired investors find wired REITs on the Web quickly.

8.4 A Final Word of Caution

It is okay to be cautious when assessing digital disclosure and its impacts on REITs. Furthermore, it is safer to defend and maintain paper-based disclosure than to embrace some or all of the ideas expressed in this research. Caution, however, is not a good reason to stand still or avoid considering the benefits of digital disclosure. Throughout this research, we have remained optimistic and little time, if any at all, has been devoted to a discussion of the downside scenario of digital disclosure, and how the WWW will change the powerful roles of key players in the REIT industry.

The WWW has the potential to change the relationships between REITs and REIT investors. However, the WWW will also change the relationship between retail investors and their agents. As more REITs provide information to wired investors, and as the comfort level to execute transactions in electronic form increases, there will be less of a need to contact and pay broker fees and other type of service fees to institutions which traditionally have operated as intermediaries. The larger the number of retail investors who become wired investors, the less need their will be for brokerage houses to serve as intermediaries or agents. Clearly, brokerage houses have to assess how their roles will change with the emergence of digital disclosure.

The WWW has the potential to speed-up the exchange of information between investors and REITs. However, many REITs would prefer to operate under a veil of relative secrecy. Faster response times to a request for information may translate into increased scrutiny of REIT managers. For some REITs, maintaining a time lag between the time news is generated and the time an investor receives it is an advantage, specially if the news is not good.

Establishing a presence on the WWW involves having a well orchestrated disclosure strategy. Since going public, many REITs have invested heavily in setting up investor relations operations. However, for some REITs, crafting and maintaining a disclosure strategy is not a priority. Furthermore, digital disclosure can often be perceived as making a REIT's disclosure strategy more complex and therefore more burdensome or more costly.

Some REITs think that digital disclosure brings with it the watchful eye of Uncle Sam. Although the SEC supports digital disclosure, many rules and regulations are still being discussed. Since going public, REITs have been under more stringent financial accounting and government regulations. A public offering and the sale of securities is highly regulated and requires extensive public disclosure. As a result, some REIT managers will refuse digital disclosure simply because they perceive it as more regulation.

Digital disclosure increases the flow of information regarding a REIT's properties. While REITs want their investors and shareholders to be the primary beneficiaries of this information, competing REITs can also gain. For example a REIT can post a list of tenants on its Web site to provide assurance to investors of the quality of their rent role. However, if this list is updated in real time, competitors could also benefit from the information. As a result, some REIT managers will consider digital disclosure a burden and not a source of competitive advantage.

In summary, digital disclosure is not perfect and REITs should be cautious. However, although paper-based disclosure is not going to go away anytime soon rejecting digital disclosure is not the answer. This research is intended to force REITs to view digital disclosure and ask, "What does all this mean? How could it affect us? Will it grow or fade away? What will happen next? Throughout this research, we have tried to answer some of these questions. I strongly believe that refusal to answer these questions will only lead to an inability to create or even take part in a different future.

The REIT industry has entered the era of the wired investor. In the years to come, the WWW will continue to create great excitement and opportunity. But it is the establishment of digital connections to wired investors, both institutional and retail, and the recognition of the necessity to operate in the marketplace that will transform the traditional REIT-investor relationship over the next decade and beyond.

The future won't just happen - it will be shaped by what each REIT does today, tomorrow, next week, next month, and next year. It is a time of extraordinary opportunity. The question is: What will each REIT decide to do?

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