ABSTRACT

The multifamily market has proven to be a particularly difficult market to penetrate with energy efficient technologies and practices. In general, the market has been treated as if it were homogenous and the assumption has been that split incentives are the major barrier to making progress in the market. This paper brings together the results of three studies, two from California and one from Wisconsin, both based on interviews and telephone surveys with owners and operators of multifamily facilities.

The research presented in this paper finds that the market is comprised of owners who manage their own properties and property firms that manage properties for others. There are at least four segments among these operators: the small operator segment, the medium operator segment, the large operator segment, and the large fee-managed operator segment. This paper describes the segments, the key decision-makers involved in the segments, the structures of operation, the criteria used in decision-making, and the opportunities and barriers for implementing energy efficiency in each segment. For example, in the small operator segment, capital and the availability of time act as barriers to implementing energy efficiency. For the large operator segment, a key barrier is the competition among worthy projects for capital and attributes other than cost and payback that tip selection to non-energy related projects.

This paper presents a new and powerful way of understanding the multifamily market that helps to set the stage for designing better and more effective programs addressing the multifamily sector.

Introduction

The term multihamily is used to describe a broad range of living and ownership arrangements and is often used differently from program to program and study to study. Multifamily can refer to physical structures ranging from duplexes to multistory high-rises. Multifamily properties can be leased to tenants or owned by the occupants. A high-rise building with rental units is an example of the former while a high-rise condominium is an example of the latter. While various of the authors of this study have completed studies of

* The California studies on which this paper is based were funded with California Public Goods Charge Energy Efficiency Funds. The Wisconsin study was part of a baseline study funded with Wisconsin Focus on Energy Funds.
both owner and renter occupied multifamily dwellings, this study will mainly focus on renter occupied buildings with four or more units.

There is a widespread belief that the multifamily market is a particularly difficult market to penetrate with energy efficient technologies. In the 1970s and early 1980s, some energy programs attempted to target tenants in multifamily dwellings. It became clear that tenants, especially in rental units, are difficult to reach, are not often interested in energy efficiency, and even if interested, are often limited to conservation rather than energy efficiency actions.

In the past twenty-five years, energy programs have also attempted to target multifamily property owners. Program implementers often find that the owners of multifamily units are difficult to reach and that their interest and awareness in energy efficiency is often low. This lack of interest is often attributed to the fact that owners make the capital investments while tenants pay the operating costs. It is assumed that owners minimize capital costs with little regard for the long-term operational costs that tenants incur. The fact that most energy efficiency measures are available at a cost premium tends to reinforce this view.

Also, there has been a general tendency to view the multifamily sector as a large amorphous entity. In fact, this sector is highly differentiated and should be viewed as a series of submarkets each with its own characteristics. We shall demonstrate this in the following pages.

This paper addresses three issues:

- An overall view of the general structure of the market
- A brief view of the tenant market
- And, a more detailed discussion of owner management segments within the market

**How the Data Were Collected**

This paper is based on three studies. The first is a study of the multifamily sector in California and mostly addresses the large operator rental market (ADM and TecMRKT Works, 2000). The second is a study of hard-to-reach populations in California (Reed, et. al., 2001) that specifically addressed the issue of renter segments in California. The third study is a study of the multifamily operator market in Wisconsin (Xenergy, et. al.). Even though these studies represent diverse populations, there are commonalities and differences that contribute to a greater understanding of the market.

The California multifamily market apartment study is based on 25 in-depth interviews, a survey of 420 multifamily housing decision makers, and on-site collection of data about common area appliances at 540 locations throughout California. The hard-to-reach study is based on analysis of secondary data sources and includes commercially available market segmentation data and the analysis of saturation data. The Wisconsin study is based on in-depth interviews with 29 market actors and surveys of 100 owners.

**The General Structure of the Market**

A large proportion of the multifamily rental market is concentrated in the hands of relatively few players. At the national level, the top 50 apartment owners own or manage
approximately 2.5 million units (National Real Estate Investor, February, 2002). The largest national firm owns or manages about a quarter of a million units while the 50\textsuperscript{th} largest company owns or manages more than 20,000 units. The 2.5 million units owned by the Top 50 firms nationally are equivalent to the total number of units in three large California utility service territories. It is seven percent of rentals nationally. Although we do not have a firm estimate, we know that there are many firms with 250 to 20,000 units.

In Wisconsin, we found the same patterns of concentration but at a different scale. Sixteen percent of rental operators who had at least one building with four or more units owned or managed 63 percent of all units in Wisconsin. Twenty-two percent of the units in Wisconsin are owned by the 73 percent of owner/managers who own one to three properties. When we examined just the operators with at least one building with four or more units, we found that operators with at least 250 units, about one percent of these operators, held 25 percent of the units or about 15 percent of all units in the state.

In California, most apartment units are found in fairly large complexes. Just under half of all California multifamily rental units in three large utility service areas are located in complexes with 100 or more units. A fifth of all rental units in these three large service territories are located in complexes with 250 or more units.

Complexes can have from two to tens of buildings. The most common sized rental buildings nationally are two to four unit buildings (20 percent), but five to nine unit buildings are quite common as are 10 to 19 unit buildings (12 percent each) (Census Bureau, 1999). In California, the most common sized buildings are one or two story buildings with five or more units. In our Wisconsin study, 81 percent of the structures in one sample of approximately 117 properties consisted of buildings with between four and 20 units.

Thus, what we can conclude about the structure of the multifamily rental market is that there is a high degree of concentration in the ownership of multifamily rental units. By targeting a relatively small number of firms, it may be possible to influence a very large number of multifamily rental units. Five percent of the multifamily rental operators may control as much as 75 percent of rental units in the US. There are a very large number of rental operators who own one to four units but they own a relatively small percentage of the total units in this country.

Also, a high percentage of rental buildings are modest sized structures, four to 20 units, which are grouped in complexes. As many as half of all rental units may be in complexes with 100 or more units.

**Tenants**

While the main focus of this paper is owners and managers of multifamily rental properties, it is useful to make a few brief observations about tenant segments. Demographically, multifamily renters tend to be single or an adult living with children. Multifamily renters tend to be low to middle income although there are some geographic areas and complexes with high income.

Because of some of the data that was available to use, we were able to breakdown multifamily renters in California into several segments. Examples of renter segments include:
Coastal single urban professionals who are singles mixed with some married couples that are affluent and educated living in major cities along the California coast. This group is mostly white with a strong Asian presence.

Urban middle-income singles are similar to the coastal single urban professionals but not as affluent and not so numerous.

Ethnic blue-collar renters are found in central urban areas. These households are in blue-collar and service occupations and tend to be Hispanic and African-American. These singles and single parents with children have incomes below $25,000.

Ethnic new arrivals are blue-collar and service workers who are often foreign-born and among the most recent immigrants. These households generally have incomes under $50,000.

We also found that there are differences in the segments found in small and large apartment complexes. For example, in California, older and very affluent professionals tend to live in large-scale coastal complexes. Hispanic lower income blue-collar and service workers tend to live in smaller complexes in inland California cities.

While tenant segmentation will vary with the area of the country, it is important to recognize that there are multifamily renter segments that are geographically, demographically, and lifestyle based. If the goal of a program is to approach tenants, it is important to realize that a one-size-fits-all program will not work. Multifamily renters have different lifestyles, reading habits, shopping patterns, language ability, and they attend to different media channels and content within the media. Attempts to effectively address multifamily renters requires an understanding of what the segments are, where they are, and that different media, different messages, and different products are needed to influence them.

Owner Segments

Based on the preceding observations, the most effective strategies for influencing the energy efficiency of multifamily housing is to focus on the owners and managers. The remainder of this paper focuses on some of what we have learned about owner/managers.

Who makes decisions about properties is dependent on a number of factors. One of these factors is the size of holdings. As the number of units increase, owner/managers typically rely on others to help in the decision-making. An owner with 10 units usually does all of the decision-making. An owner with 1,000 units may delegate the detailed day-to-day decision-making for groups of buildings or complexes to subordinates. Thus, as the size of holdings increase, owners may become removed from the specifics of decision-making.

Another factor that influences decision-making is how owners choose to manage their property. Some owners do not want the responsibilities of day-to-day property management or treat property as an investment so they hire a management company to manage the property for them. For example, owners with small numbers of multifamily units may not want the hassles of managing a property and may turn it over to someone else. There are numerous individuals, groups of individuals and institutions who like the stability and tax consequences of property investments but do not want to manage real estate. These individuals hire professional managers to oversee their property or invest in properties that are managed for them.
The differences in the number of units and the choice of how to manage property have consequences for who makes decisions, the amount of time and expertise that are involved in decision-making, and the criterion variables that are factored into decisions. Given this, we believe that there are at least four different operator segments in the multifamily market, the small operator segment, the medium operator segment, the large operator segment, and the fee managed operator segment. We believe that these segments represent different target audiences that will need to be addressed with different content, different programs, and different marketing strategies.

The small operator segment roughly corresponds to multifamily operators with 70 or fewer units and perhaps some with larger numbers of units. The medium segment includes many of the multifamily operators with 70 to 230 units but may include some operators with more or fewer units. The two largest segments correspond to operators with more than 230 units but may include some operators with fewer units. The distinguishing feature between the two largest segments is the degree to which multifamily operators fee manage property.

**The Small Operator Segment**

This segment is made up of owners with between four and 70 units. The units may be located in one or more buildings. Sometimes, owners of units in this range will have several small properties with one to 10 units in them and/or perhaps one building with a larger number of units.

This segment is typically composed of people who have other employment and who own and manage rental units on the side. With this number of units, the income from the properties at least with smaller numbers of units, is probably not sufficient to allow people to support themselves full-time.

Based on our qualitative interviews, we believe that quite a few owners in this segment are blue-collar or persons with craft skills. These people may have gotten into the multifamily business as an extension of their trade. Typically, owners in this segment have the skills to complete their own maintenance and do so. They use contractors as a last resort when the job is outside their skill set or too large, too time consuming, or too involved for them to tackle.

In many instances, couples operate as a team to manage the business. One member of the team may do the bookkeeping and leasing and the other member the operations and maintenance tasks or some combination of these activities. In other instances, just one person may operate the whole business.

The small multifamily operations are usually run from the owner’s home, or in the case of a tradesperson owning their own business, from a business establishment. In many instances, the residential telephone serves as the business telephone. Because these owners hold other employment, they are often difficult to contact during normal business hours. There is heavy reliance upon answering machines. These owners are best reached after business hours and probably through the mail or some mechanism that is not direct one-to-one contact.

The combination of outside employment and managing the multifamily property means that these individuals are extremely busy. Owners in this segment are focused on the day-to-day details of managing the business and keeping their units leased and maintained. They do not have, and therefore do not spend, a great deal of time searching for information.
or exploring options. They respond to equipment problems or physical issues associated with their building(s) swiftly, taking the most straightforward path to problem resolution. This frequently means one-for-one replacement and minimizing the amount of time spent considering options.

In this segment, and for that matter in other segments, there is not likely to be on-site personnel when the number of units in a building or complex is small, in the range of four to 10 units. Beyond this number of units, owners may have a part-time or in some cases a full-time on-site representative. With smaller numbers of units, the representative is often a renter who receives consideration on the rent for showing the property, doing some light maintenance such as keeping common areas clean or mowing, completing minor repairs, being available when tenants have problems, calling the owner when issues arise that need the owner’s attention, and perhaps serving as a convenient agent for collecting receivables. As should be clear, the key decision maker is the owner.

The Mid-Sized Operator Segment

The number of units owned or managed by operators in this segment starts somewhere between 40 and 100 and may range as high as 300 to 500 units, perhaps as high as a thousand units. In the mid-sized operator segment, the owner is can involved full-time with property management. More importantly, what most distinguishes this operator from the small operator is the use of some paid staff.

Although we do not have certain evidence, we suspect that the smallest mid-sized operators typically hire maintenance personnel first. There is probably some point between 50 and 100 units when maintenance becomes too great an issue for the owner operating alone. The owner continues managing the properties but cedes some of the maintenance activity to a paid staff person. In some instances, this may be done by providing a consideration for rent. Alternatively, the owner may contract some maintenance rather than hiring staff. The important point is that there is now an additional person or persons contributing to decision-making.

The nature of the buildings in this segment is different than in the small owner segment. Whereas the small operator segment may have multiple one to ten unit buildings, and perhaps one or two larger buildings than that, the medium sized operator is likely to have one or more buildings, or perhaps one or more multifamily complexes in the range of 20 to 150 units.

Like other operators, medium sized operators use on-site renters as managers until the number of units in a building or several buildings in a complex reach a point where the building and the management of the building or complex needs constant attention. For larger sized buildings or complexes, the operator may hire a professional manager or a family member may become a full-time professional manager. At modest building/complex sizes, there may be a single site manager who covers nearly all functions such as budget, receivables, leasing, and tenant relations. As building/complex sizes increase, the functions of the staff begin to diversify into management, leasing, and maintenance. Up to this point, the owner typically retains much of the detailed decision-making authority.

As the size and number of sites and buildings increase, there begin to be intermediate levels of managers who are responsible for multiple buildings or multiple complexes. It is at this point that the owner tends to relinquish authority and control to senior property
managers. Thus, rather than being directly involved in much detailed decision-making about specific buildings or complexes, and perhaps maintenance, the owner begins to become more hands-off and begins to focus more on the financial and management aspects of the operation.

In talking with many mid-sized operators, we have observed, although not with any statistical rigor, that many are family firms or firms that have grown-up around one or two individuals who represent themselves, friends, and acquaintances who are investors. Some of the larger firms in this segment appear to be family firms where there has been a succession of generations or at least many years to accumulate properties. This may be indicative of the length of time it takes to accumulate wealth and build a very substantial portfolio of property. The larger firms appear to have been fairly aggressive in their financial dealings.

We have also spoken to operators in this group whose portfolio appears to be in decline. These are people who built a fairly substantial portfolio of properties who have chosen to slowly get out of the business. Whether operators are in ascent or decline can significantly color how they make decisions and whether they are interested in issues such as energy efficiency.

The Large Operator Segment

The large operator segment is comprised of firms with 270 to several thousands even hundreds of thousands of units. The lower limit of this range is not fixed and there may be firms with fewer than 270 units who fit the characteristics of this category and firms with up to a thousand units who are more like the mid-sized operator. There is no definitive breaking point.

The very large firms typically have holdings throughout the country. The bulk of the large firms holdings are often on the East and West Coasts as well as in Texas and the Southwest. Their geographically widespread holdings represent a form of diversification that affords some protection from downturns in regional economies. Some of the smaller firms in this group may be regionally based, for example, in the Midwest.

In general, it appears that the larger owner management firms target higher end markets although this is not always the case. These firms may specialize, for example, in high-rise downtown properties, low-rise suburban multifamily housing, or properties to attract seniors, but most have a mix of multifamily property types.

The regional and national firms almost always have multiple lines of business. It is not unusual for such firms to be broadly engaged in real estate development including the development of multifamily housing and commercial properties. Some may have divisions that specialize in housing for older persons and persons with special needs. Such firms usually have a development function involving one to several people that frequently includes the owner. The development divisions may focus on buying and upgrading existing properties or building properties or both. Some of these firms have real estate operations, which match tenants with commercial properties. Other complementary lines of business include commercial office and retail space holdings, particularly strip malls or malls. We spoke with a Milwaukee property manager who had responsibility for a residential complex and an adjacent shopping mall. Most of the firms have property management divisions that operate multifamily properties for others.
The organization of these large firms is complex. At the top, there is a board, a president and/or CEO. There are generally several vice-presidents usually aligned with the different operating divisions, for example, property acquisition, property development, construction, multifamily housing operation, commercial property, etc.

There is also a fair amount of vertical structure. Within a multifamily housing operating division, there may be regional directors or vice presidents who are responsible for properties in a fixed geographical area. There may be one or two layers of property managers beneath the regional directors depending on the number and size of properties within a defined geographical area.

One of these layers of senior property manager is typically responsible for several properties within more local geographical areas, for example, within the Milwaukee metropolitan area or for an area from Northwest Illinois to Green Bay. The size of the area is dependent on the number of units and the properties that are owned and managed. The exact structure may vary depending on circumstances. One of the persons we interviewed was located on-site and acted as a site manager for a particular property and also as a senior property manager with oversight for two additional properties.

At the property level, depending on the number of units, the number of buildings, and the location there is usually a site or property manager, perhaps an assistant property manager, a leasing manager and some number of leasing agents. Also, there is usually a maintenance supervisor and maintenance staff. In high-rise buildings, you may find front desk staff, security personnel or a door person, and perhaps a concierge and cleaning staff.

The property manager is responsible for developing budgets, processing receivables, supervising staff, tenant relations, advertising, developing proposals, etc. Leasing managers and staff are responsible for leasing space and tenant relations.

The maintenance manager at larger properties is usually someone with some training and/or experience who is capable of repairing and maintaining most of the equipment found on-site. The maintenance staff are typically less well-trained helpers for the maintenance manager. Because high-rise buildings typically have more systems and perhaps more complex systems, the maintenance supervisors in these buildings may have more experience and training than maintenance supervisors for other types of settings.

There is some lack of consistency in the pattern of relations between the site manager and the maintenance supervisor. In some organizations, the maintenance supervisor reports directly to the site manager. In other cases, the maintenance supervisor may report to someone in facilities maintenance higher in the organization, and coordinate with the site manager. Which of these arrangements may occur is likely affected by factors such as the number of properties in close proximity to each other.

Although site managers may have some discretion in decision-making, they do not have a great deal of autonomy in decision-making in these large firms. Usually, there is an upset limit, such as $1,500 to $2,000, at which point a site manager passes the decision-making to a senior property manager for approvals. One of the site managers we interviewed had a decision limit of $7,500. The types of decisions that on-site managers make are usually quite circumscribed. For instance, they may authorize a refrigerator replacement but they are not likely to make a general change in the style, model, or efficiency rating of a refrigerator without authorization from someone higher in the organization. A lot of the discretion and authority for major decisions resides with the senior property managers or is initiated by them and then moved up the chain of command. It is the property supervisors who make the
decisions and initiate proposals for changes to buildings, although site managers certainly work with senior property managers and may be the initiators of the ideas.

Generally, a maintenance manager makes a decision about what may need to be fixed or replaced. Depending on the relationship with the site manager, the maintenance manager may proceed with replacements subject to predefined approval limits or understandings about what types of replacements may be made. A maintenance supervisor typically will not be making decisions about changes in the models of appliances that may be installed. A senior property manager might make such decisions depending on how much autonomy the senior property managers have in dealing with properties. Some of the large firms purchase from national contracts or buy through contracts from local vendors. Some of the senior property managers with whom we talked indicated that they buy from local vendors based on price.

When major changes are contemplated in buildings, for example, changing the façade or remodeling kitchens or baths, property supervisors develop proposals for capital funds that are presented to upper management. Upper management evaluates the proposals and makes decisions from among groups of proposals about what to fund. Proposals are likely to be funded if it can be shown that the changes will help to keep a building competitive (in other words occupied), and concomitantly rental values high.

Some of the larger firms may have in-house architectural and engineering staff that guide capital projects. Some of the people with whom we talked indicated that they did not use in-house expertise but went instead to local architects, engineering firms, and contractors. This probably reflects the diversified nature of these firms and the fact that in-house staff and construction expertise are focused on development projects and somewhat removed from day-to-day operations of buildings at the local level.

Some of these firms have technology standards that the property supervisors and site managers are required to follow. These standards may limit what property supervisors can do. In some instances these firms have a technology manager who evaluates technologies and dictates what can be used. It may be possible to influence such technology managers but they may have to be approached by regional and national organizations rather than a state level entity because the standards may apply to thousands of properties.

The picture that emerges then is that the key decision makers for the large operators are the senior property managers. They are the ones who initiate projects and they are the persons who have to convince the firm to invest its capital in certain enterprises. Their livelihoods are dependent on their ability to show a profit for the buildings they manage. They do respond to incentives, and they are looking for ways to increase the profitability and margins for their properties. Generally, on-site managers have some latitude to make decisions but there are limits to the changes they can make without approval from a senior property manager or someone higher in management.

The Large Fee Management Segment

There are a number of firms that specialize in multifamily property management. These firms manage large numbers of units, buildings, and properties on a fee basis. Instead of managing the investment for a company, these firms are managing the properties for a diverse array of owners. The ownership structures of buildings may involve a single owner or a group of investors who have purchased a building. Major institutional investors, such as retirement funds, use property management firms. Often institutional investors will work
with a single firm to manage all of their investments in a given area. Depending on the size of the firm and the number of properties that they manage, the management structure more or less mimics the structure of the large-scale owner/management segment.

Here again, the senior property manager is a key player in the decision process. The senior property manager develops budgets and revenue projections that are agreed to with the owner. As long as the costs stay within budgets and revenue projections are met, the property supervisor has a great deal of autonomy in dealing with the building. For example, one of our informants has instituted a semiannual check of all faucets in her buildings. This results in a significant reduction in water costs. This is not something requested by the owners. This is something that she does as part of her management efforts and is suggestive of how she attempts to manage common area costs.

A fundamental difference between owner managed properties and fee managed properties is how trade-offs are made for capital projects. For fee-managed properties, the property supervisor develops proposals but then must convince the owner to forgo cash flow for the period needed to cover the costs of the project. Here the competition is not among projects for buildings, but whatever other investments, projects or uses the owner(s) may have for the money. The senior property manager must convince the owner that there will be a return on investment in terms of reduced costs or sustained revenues and the owner must decide if the return on investment is acceptable and that the short term disruption to cash flow has value. Partially this is a problem of helping the owner to plan ahead for the changes in cash flow.

Summary and Conclusions

It is widely believed that it is difficult to penetrate the multifamily renter market with energy efficiency products and services. In this paper we have examined the multifamily sector in some detail based on information compiled from three different studies. From this we have developed three key sets of interrelated findings.

First, we find that ownership of multifamily rental properties is fairly concentrated. A relatively small number of firms and individuals own a very substantial number of multifamily units. If these firms and individuals are targeted, there is potential to substantially improve the energy efficiency of a substantial number of multifamily dwellings.

A second set of findings has to do with tenants. Generally, multifamily renters are limited in what they can do to increase the efficiency of their dwellings. Much of what they can do is limited to the purchase and use of personal products such as lighting and personal appliances. Program implementers sometimes think of tenants in multifamily rental housing as being fairly homogeneous. In fact, the data show that tenants are quite diverse and that they can be segmented into actionable groupings using readily available data if implementers need to address them directly.

The most important findings in this paper relate to owner segments in the multifamily market. Small operators frequently operate their properties as an adjunct to other economic activities. They frequently do some of their own maintenance. They are time-limited which makes it difficult to reach them and to get them to investigate new technologies. Mid-sized operators have reached a size where they can support themselves through their multifamily rental operations. They may have employees and a maintenance crew. The owners are the primary decision makers in this group. For large operators and the large fee managed
operators, it is property supervisors rather than site managers who make key decisions about properties. Usually a property supervisor will be responsible for two to seven properties. Their duties may include retail property management as well. These decision makers compete for capital or must justify capital expenditures to owners. Generally, their focus is to increase the competitiveness of their properties or to be able to increase the rate of return from leases. Thus, they tend to focus their attention on improvements that are visible or of interest to tenants. For example, they might authorize the purchase of energy efficient refrigerators but they are likely to make that choice based on features of the refrigerator other than energy. Energy is a low priority issue for them. For many of these properties, energy may be five percent or less of the budget. While on-site staff may have some budget authority, they are not likely to be able to significantly influence major capital expenditures.

References


Census Bureau, American Housing Study, 1999.


