Rent, Occupancy and Performance A Case Study of Apartment Management

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Dale Matthew Mumford and William Schein

Submitted to the Center for Real Estate Development on July 23, 1987 in partial fulfillment of the requirements for the degree of

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Abstract

This study examines the trade-off between rent and occupancy levels in the management of rental apartments. Data was provided by a large apartment development and management company. Current pricing policy and the current and potential use of information are examined. The paper then describes relative performance measures and presents the results of log-linear regressions using subject property and competitor data for three markets. The paper concludes with recommendations for an improved pricing strategy.

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THE ASSIGNMENT

This study was funded by a large national developer and manager of multifamily housing. The company currently manages a large portfolio of apartments in various parts of the United States. Factual data relating to a portion of this portfolio and to competing properties are included in this report. However, the names of the regions and markets associated with this data have been changed to protect the identity of the sponsoring company. The data are real but do not reflect the regions and markets referred to in this study. In sponsoring this study, the company posed a question: "How significantly is the company's ability to outprice the competition limited by volume (occupancy) considerations?" The following analysis attempts to discuss performance in this context of price/occupancy trade-off, and seeks to determine whether or not the company is outperforming the competition. Another aspect of this question is: To what extent is product differentiation necessary to achieve price differentials? The study also seeks to establish a method of identifying the nature of the markets the company is active in and estimate to what degree apartment consumers within those markets are price sensitive.

I. INTRODUCTION

1. Market Competitiveness

The renting of apartments is a highly competitive business. Favorable tax law in the past spurred the development of apartment projects through limited partnerships. Rapid depreciation schedules compensated for negative operating cash flow of projects and inflation ultimately raised rents to close that gap. Large numbers of apartments were built throughout the United States during the past two decades. In some markets strong demand has been able to absorb the increasing supply and lead to high occupancy rates. In many markets, however, demand has not been able to keep up with the large increases in supply, and occupancy rates have dropped, in some instances to levels well below the 95% usually predicted in project pro-forma statements.

2. Pricing and Performance

The company has established itself as a provider of high-end apartments which cater to young professionals who like the

convenience and mobility of apartment living and are willing to pay rents which are generally at the top of the scale for such housing in the respective market.

Traditionally, the company's philosophy has been to own, develop and manage apartment units which set the market standard with respect to quality of construction, sophistication of management and level of amenities. As a result, the company has felt that it should be able to charge rents which are somewhat higher than those of the competition. In the past, the company's properties were differentiated from those of the competition by the amenities being offered. Now most new apartment projects built in comparable locations offer the same level of amenities, such as swimming pools and tennis courts. Since there is less product differentiation, certain senior level officers feel that the company may have moved into a commodity business. This would suggest that consumers perceive the company product as being only marginally different from that of its competitors and are reluctant to pay a rent premium. Meanwhile, the company is once again striving to differentiate its product by offering an "Enhanced Service Package", which would include such amenities as on-site drycleaning, video rentals, etc..

3. The Field Work

The starting point of this study was a visit to company offices and a look at some of its apartment projects. Data and information were gathered in the regional offices for the Mountain and the Southwest regions, and at the company's property management and accounting headquarters. In particular, operating and pricing prodedures were examined and reviewed, with an emphasis on the strategies employed, the information used in making decisions, and the constraints imposed from within the organization. Company personnel at various levels were interviewed, from resident management staff to regional vice-president. Also questioned were executives involved in development, market research, and accounting. Data was collected from resident managers, operations managers, and accessed from the company's mainframe computer.

On suggestion of the company, four markets were chosen from specifically defined regions. As stated earlier, the identities of these regions and markets have been changed to maintain the confidentiality of the sponsoring company. Hence, in this study surveyed markets are referred to as:

Tucumcari, New Mexico (Southwest); Livingston, Montana (Mountain); Green Bay, Wisconsin (Prairies); and Honolulu (Hawaii). These regions and markets are further described below. Data collection was then focused on the markets, the data sources and data availability having been identified during the earlier gathering and surveying process. All data was obtained within the company. Data was obtained in the form of computer printouts, survey sheets filled out at the field offices, and summaries compiled at the regional offices. This fieldwork was conducted between June 8 and June 18, 1987

In the sections which follow, we describe pricing in the context of performance and test the responsiveness of consumers to price changes.

Section IV presents a model for evaluating performance relative to the market and describes the empirical work conducted with rent and occupancy data. The data which is analyzed, the method employed, and the results obtained are described.

Section V offers recommendations to the company and suggests an approach to further investigation.

II. THE COMPANY

1. Organizational Structure

Pricing is a common thread which runs through the various departments of the organization. The Operations Department oversees the day-to-day operation of the various properties and is responsible for price setting. However, the environment within which price setting occurs involves other players as well.

The Operations Department is overseen by a Chief Executive Officer. The operating goal of his department is to produce cash flow, and to increase the value of the properties in his portfolio. To achieve this goal, internal responsibilities are delegated to a senior vice-president who in turn oversees regional vice-presidents, each of whom is responsible for one of eight geographic regions.

Within each of the regions, these regional vice-presidents oversee the daily operations through a series of operations managers. Each operations manager is responsible for eight

to twelve properties, ensuring that maintenance standards are adhered to, and that the projects are leased to acceptable occupancy levels at the best possible rental rates. Reporting to each operations manager is a sales manager who assists and supervises the resident managers of the various apartment complexes.

There are others within and outside the organization who, directly or indirectly, influence the setting of rents. These players include investors, lenders, the development department, and the portfolio management people.

In talking to administrators in the development department we found that in the process of formulating viability forecasts for new developments, current market rents are often imputed at levels in excess of current market levels. Market rents are surveyed and in an attempt to achieve the highest possible level of financing, they are often overstated. Occupancy levels are usually predicted at 95%.

2. Pricing Strategy

a. Setting Base Rents

Rent levels are budgeted in a pro-forma schedule for each property. Budgets are revised annually, and typically call for quarterly rent increases. While they provide a framework for estimating future cash flow, they are not very responsive to market conditions and therefore not necessarily appropriate for setting rents. One executive indicated that too frequently such decisions are determined by the property budget, rather than by current market conditions. While the operations managers are not bound by these budgeted rents, they do provide a measure of performance and influence decision making.

The operations managers and their staff review the occupancy figures for each property on a weekly basis and determine whether to follow the budget, or deviate from it.

Regional vice-presidents review performance reports and provide input to pricing on an ad hoc basis. Resident property managers supply the factual information used in the evaluation process, as well as intangible information on the

status of the market, which helps develop a feeling for the degree of firmness or softness of demand and the reaction which can be expected from price changes.

Close attention is paid to occupancy levels and to the rents charged by competitors. While the general level of occupancy in a market is perceived as having relevance to the company's ability to achieve a given level of occupancy in that market, no specific mechanism is employed to determine a target occupancy level distinct from the usual goal of full occupancy. Competitor occupancy data is not employed in an organized fashion. Competitor rents are used in a similarly general manner; they provide a comparison, but not a real input into a pricing formula. (See chapter II, section 3 for a description of where and how various data is generated)

Price changes are made on the basis of information which includes the following:

- 1. Number of vacant units.
- Number of upcoming vacancies based on move-out notices given for the coming 30 days.
- 3. Market rents: Rents charged for comparable units by competitors. Typically, the company's rents are set at

the high end of the range, since the company feels it is providing a higher level of quality and services.

4. Target occupancy rates: Pro-forma predictions, usually 95%.

5. Budgeted Rents.

b. Premiums, Inducements and Adjustments

There is a tendency to maintain contract rents at or near the budgeted level. In order to allow some pricing flexibility while maintaining target figures, the following supplementary mechanisms are employed:

- 1. The base rent for a unit excludes amenities which may or may not be separable from a unit. Such amenities, for which charges beyond the base rent are levied, include carports or garages, fireplaces, bay windows, views, and the right to house a pet. These charges raise the effective rent, while maintaining an advertised rent. They also provide a selling tool by allowing a resident manager to waive a premium or provide an amenity free of charge.
- In a soft market, resident managers will offer a period of rent free tenancy as an inducement to sign a lease.
 Another tool is coupons to be used by tenants toward

their rent payments.

3. Lease renewals in a soft market are encouraged by offering renewals at rent levels below the current market rent. Thus renewing tenants can be made to feel that they are being given preferential treatment over new tenants. This can be an important adjustment if market rents have increased a good deal during the preceding 12 month period (the typical lease term).

c. Sensitivity to Occupancy Rates

One of the market regions, the Southwest region, uses a unique approach to adjusting price to occupancy rates. Managers in this region have set occupancy rate benchmarks to guide them. Based on judgement developed over the years, they have decided to push rents upward if the occupancy rate for a unit type exceeds 96%, hold rents for occupancy rates between 92% and 96%, and offer inducements or lower rents if occupancy rates drop below 92%.

While this approach is responsive to the concept of price elasticity of demand for apartments, it does not go beyond intuitive judgement in setting benchmarks. Nevertheless, it is an approach which acknowledges the relationship between rent and occupancy by attempting to satisfice profit rather than occupancy.

3. Collection of Information

Information is primarily collected by the resident property managers and their staff at the individual apartment complexes and passed on to the regional offices or the accounting headquarters. Information on competitor properties is obtained either by "shopping", or by interviewing resident managers and offering like information in exchange. Success in obtaining competitor data varies, with better data being available for the Mountain region than for the Southwest, where the company is less willing to divulge its own figures. Although some data can be accessed through the company's computer system, much of the information that is gathered is not centrally computerized and is only retained at the individual properties.

The major reports containing information relevant to this study are:

a. Activity Reports: These are generated weekly and include the current asking rent for vacant units by unit

type, budgeted rents for the period, current occupancy levels by unit type, and tenant turnover. The reports also contain information on sales traffic and closings.

- b. Market Surveys: These are produced at irregular intervals for the company's own properties and comparable competitor properties. Information collected includes current asking rents, premium charges, occupancy rates, project attributes, and amenities provided. Most of this information is easily obtainable; however, occupancy data can often not be accurately ascertained. Resident managers are often reluctant to divulge this information, and may provide figures which are inaccurate or misleading.
- c. Rental Performance Reports: These are only produced in the Southwest region and contain weekly data on number of units vacant by unit type and their current asking rents, as well as the number of units expected to become vacant within thirty days (based on notices given) and asking rents for those units.
- d. Other Reports: The above data and information is available in alternative configurations. Rent and occupancy data is

presented in summary form, aggregated by project over unit types, and by region, and summarized in monthly reports. Actual rents paid and units vacant are reported on a unit by unit basis in monthly rent rolls. A management performance report provides current averages and data going back three and twelve months.

4. Internal Constraints to Pricing

The expectations of investors - the limited partners in the company's apartment projects - are based on pro forma income statements prepared prior to securing financing for construction. The rent and occupancy figures presented in these statements are generally optimistic. Future cash flow projections are based on inflationary past market conditions and difficult to live up to in markets which become overbuilt or begin to suffer from declining demand.

Property values are based on capitalized pro forma cash flow. There is pressure to maximize value prior to disposition of a property; this similarly constrains pricing decisions. High face or contract rental rates are maintained through the use of inducements, in the belief that high face rates generate high market values. A further factor is the mechanism by

which the performance of the various property managers is evaluated. Traditionally a great deal of emphasis has been placed on achieving high (ideally 100%) occupancy rates.

III. IMPROVED PRICING STRATEGY

In this study we are attempting to do two things:

- (i) We are attempting to measure the company's performance in relation to that of its competitors, and
- (ii) We are attempting to develop a model which estimates the sensitivity of apartment consumers to price.

1. Performance Evaluation

In today's rapidly changing economic environment, organizations owning real estate are in need of comprehensive and frequent information about the properties under their administration. Whether it be an institution with a large mixed asset portfolio, or a corporation whose assets consist entirely of income-producing properties, such as the company looked at here, the need to monitor the performance of real estate assets in the portfolio is becoming increasingly important for effective asset management.

Without proper information, accurately gathered and skillfully analyzed, management decisions are hard to make. The industry is evolving to a higher level of sophistication and because of this, there is a critical need for better analytical tools to help understand the performance of real estate investments. Measuring this performance with a degree of accuracy and sophistication similar to that employed in other investment categories, is a standard which is beginning to be demanded.

In the following sections, we will examine a concept of gauging performance by comparing rent and occupancy data for company properties with data for competitor properties in the same markets.

One measure of performance in the marketplace is the ability to either exceed market rents while maintaining market occupancy rates, or exceed market occupancy rates while maintaining market rents. Other things being equal, it can be expected that increasing rents relative to the competition will lead to reduced occupancy levels, as potential tenants rent from competitors. Similarly, decreasing rents relative to the competition will result in increased occupancy levels. The trade-off between rent and occupancy levels is shown in Figure One.

Figure Number One



(**\$**) **Line 1** Page 21

2. Market Responsiveness

Market responsiveness relates to the sensitivity with which consumers react to price changes, and is estimated by plotting relative price and relative occupancy data. It is expected that market response to price differences will depend on a variety of factors. Being able to estimate the influence of these factors would enable a property manager to more effectively set prices so as to achieve profit objectives.

Weak demand or oversupply and the resulting decrease in occupancy rates, along with the deterioration of tax benefits, has prompted apartment owners and managers to pay increased attention to operating cash flow. According to company sources, expenditures in apartment operations are relatively fixed and independent of occupancy levels. Debt service is usually the largest expense item, followed by depreciation, property taxes, personnel, and maintainance costs. Whether a project is 80% occupied or 95% occupied has little or no impact on these costs. We have therefore disregarded expenditures and focused our analysis on gross cash flow, which is largely a function of rental revenue. This in turn is determined by rental and occupancy rates.

Rent and occupancy are connected, such that, excluding other influences, occupancy tends to drop when rents are increased, and rise when rents are decreased. Optimum pricing implies setting rents at a level which optimizes this trade-off between rent and occupancy in such a way that rental revenue is maximized. Determining optimum rent levels is therefore of great importance. Setting rents too high will sacrifice occupancy too much, while rent levels which are too low will not be sufficiently offset by greater occupancy. In the weak markets, managers concerned with dropping occupancy levels must decide how to respond with rent reductions. In the strong markets, managers are concerned that high occupancy rates may indicate rents are being kept below optimal levels and profit is being foregone. Rationalized pricing requires information on the relationship between rent and occupancy, so that the trade-off between the two can be predicted, or at least estimated.

A measure of market competitiveness can be achieved by comparing rent and occupancy levels with those of competitors in the market. This comparison is shown in Figure Two, where the ratio of subject property rents to competitor rents and the ratio of subject property occupancy to competitor occupancy are graphed. This graph allows a direct comparison on a property by property basis, as well as showing a trend over a market area. A steep line indicates a market in which consumers are relatively insensitive to changes in rent; a given change in rent would result in a comparatively smaller change in occupancy. A flat line demonstrates a market in which consumers are sensitive to price changes; a given change in rent would result in a comparatively larger change in occupancy.

Figure Number Two



Figure Number Two



Relative Rent

Relative Rent

IV. THE RELATIVE PRICE-OCCUPANCY MODEL

1. The Markets

The regions in which the company owns and manages apartments constitute distinctly different markets. They vary in a number of ways, the most important being market share of the company, age of the company's properties, and typical attributes and amenities of the properties. Four regions were selected for this study. The data used are real but for the purposes of confidentiality the identities of regions and markets have been altered to:

a. The Southwest

The company was first established in this region and has a very large presence, both in terms of the number of units it manages and in terms of market share in certain cities. The apartments in this region tend to be older, many of the projects having been built 15-20 years ago. Occupancy rates in this region are currently around 93%-95%.

b. The Mountains

This is also a large market for the company, stretching from Montana to Utah, with most projects located in the Livingston, Montana area. This market is characterized by a large stock of old projects and a sizeable amount of new construction driven by the current high demand for apartments. Occupancy rates tend to be over 97% in the Livingston area and some of the company's projects have waiting lists. The projects the company owns and manages in this market are mostly new.

c. The Prairies

This region includes Wisconsin, Iowa, and Kansas. Demand in this region had dropped a good deal and occupancy levels are 85% and below, with the exception of Green Bay, where occupancy is considerably higher. The company's projects in this region are located in smaller metropolitan areas (with the exception of Milwaukee) than is the case for the other regions listed here. The projects are again older, but there is currently little new construction providing new product to the market.

d. Hawaii

This region in general contains both old and new product. The company entered this market more recently and owns only new projects here. Overbuilding in this market has caused occupancy rates to drop to levels between 80% and 85%, with the exception of Oahu, where occupancy is much higher. Competition is severe here, with many of the competing projects offering similar amenities. The company's market share is low in this very large apartment market.

2. The Product

Apartments are distinguished from each other by a number of factors. These include location, age, attributes and amenities. Some of these factors are, to a degree, connected. For example, apartments in more desirable locations might also offer a higher level of amenities than those in inferior locations. Apartments of similar age also tend to offer similar attributes, with the newer projects offering more recreational facilities. Thus the newer projects tend to have a competitive advantage over the older ones, and are able to command higher rents.

This could give the company an edge in the Livingston market, for example, since most of its projects in that market are new, while most of the other projects in that market are old. In the markets where much of the product is new, there is little product differentiation. In order to achieve top rents in those markets, the company is attempting to create product differentiation in new ways.

3. Description of the Data

The data used to estimate the model was taken from market survey reports prepared by resident property managers at the individual subject properties. Competitor data, particularly occupancy data, is collected infrequently, and was not available for every period. In some markets such reports are completed every month, whereas in others it is gathered quarterly, annually, or even less frequently. The most recent period for which data for all properties within a market area was available was chosen.

The units compared were one bedroom - one bathroom apartments of roughly comparable square footage in complexes of approximately the same age, providing a similar general standard of attributes and amenities. Rent refers to the

current base rent being quoted for a vacant unit of the type being considered. This does not include premium charges for amenities (i.e. fireplaces or views) which may be imposed for certain units.

Rent data does not take into consideration the fact that most rented units will be leased at a rate that is different from the current asking rent, nor does it reflect discounts given to existing tenants as an incentive to renew their leases. Inducements offered to prospective new tenants (i.e. a months free rent, or waiver of a premium for an amenity) are taken into consideration where this information is available, however, it is believed that such inducements often are not reported in the data.

Occupancy relates the total number of rentable units (i.e. excluding models) in a complex, to the number of units for which rental agreements are currently in effect. This "market occupancy" rate will include units which have been leased, but are not yet occupied, and is distinct from "economic occupancy", which includes only those units which are currently producing rental revenue. Market occupancy will overstate true occupancy where rental agreements are broken and tenants fail to move in. This is more likely to

occur in soft markets, where deposits or down payments are either small or are waived prior to move-in.

4. The Model

A model is developed which recognizes that the relationship between the occupancy rates of two competing properties is a function of a number of factors:

- (a) Differences in rent between competing units, and
- (b) Differences in attributes between competing units;included in this analysis are:
 - (i) size of unit (square feet)
 - (ii) age of the complex (years)
 - (iii) children allowed
 - (iv) pets allowed
 - (v) clubhouse(s)
 - (vi) swimming pool(s)
 - (vii) tennis court(s)
 - (viii) sauna(s)
 - (ix) exercise room(s)
 - (x) cable t.v. and/or satellite dish
 - (xi) outside storage
 - (xii) washer/dryer connections

- (xiii) patios or balconies
- (xiv) draperies
- (xv) security intercom
- (xvi) air conditioning
- (xvii) electricity included in rent
- (xviii) gas included in rent.

The model forecasts what the ratio of occupancy rates between a subject property and a competing property should be, given the relationships between the competing projects. For example, one could ask what the expected occupancy of a subject property relative to a competing property should be if a unit in the subject property rents for \$100.00 per month more than the competing unit, if the subject unit is 200 square feet larger than the competing unit and if the subject property provides all of the above listed attributes while the competitor property does not. Any combination of attributes can be examined in this manner. The rationale for including property attributes in this model is to gauge their influences on occupancy. If apartments are poorly differentiated, the influences of the attributes should be relatively insignificant.

The rent, size and age variables will be continuous variables

while the remainder are discrete; that is, where the particular attribute exists, the number "1" will be recorded and where it does not exist, the number "0" will be recorded in its place.

The slope of a regression line will illustrate the sensitivity of consumers to rent differentials, as well as the degree to which the various attributes can influence occupancy. For example, with relative price plotted along the vertical axis and relative occupancy along the horizontal axis, holding all variables except rent constant, a comparatively flat line with a downward slope (large negative coefficient) would suggest that consumers are price sensitive. A small increase in rent at the subject property relative to a competing property will cause a disproportionately large drop in the occupancy rate of the subject property, relative to the competing property.

Conversely, a relatively steep line (small negative coefficient) would suggest that a large increase in rents at the subject property would cause occupancy at the subject property in comparison to that at a competitor property to drop only by a small amount.

The equation estimated by the model takes the form:

Log (O(x) / O(c)) = a + b[Rx-Rc] + c[Dx-Dc] +

Where:

O(x) / O(c) is the occupancy rate at subject properties relative to the occupancy rate at competitor properties

[Rx-Rc] is the difference in the asking rents for vacant units between subject and competitor properties

[Dx-Dc] is the difference in attributes between subject and competitor properties, and

a, b, c, ... are the parameters which are to be estimated.

The model is of a log-linear specification; that is, it is intrinsically linear: nonlinear with respect to the variables but linear with respect to the parameters to be estimated.

a. Expected Results

Certain results were expected from the model. First, the coefficient associated with the rent difference was expected to be negative, such that an increase in rent at the subject property relative to the competition would cause a drop in relative occupancy. Second, the coefficients associated with the various attributes were expected to be positive, thereby suggesting that their existence would have a positive influence on occupancy.

For the Livingston and Green Bay analyses, it was expected that consumers would be price sensitive, but not to the same degree as apartment dwellers in Honolulu. The reason for this is that the markets in these two regions are not as heavily oversupplied as the Honolulu market. Demand is in closer balance with current supply in the Livingston and Green Bay markets, with occupancy levels in excess of 90%.

It was also expected that the results would show that project attributes and amenities would have a stronger influence on relative occupancy levels in the Livingston and Green Bay analyses. In both regions, there is greater diversity between apartment projects than in Honolulu. The markets are
characterized by large numbers of older projects and a sizeable amount of new product driven by the current high demand for apartments. Projects of different age feature a variety of different amenity levels, and this was expected to be a major determinant of product differentiation.

b. Observed Results

The regression results are presented in the addenda.

(i) Livingston

The coefficient for the rent difference was -0.00017, suggesting that a 10% increase in rents at the subject property relative to the competition would cause relative occupancy rates to fall approximately 2 percentage points (See Table One below). This suggests that consumers are relatively price insensitive and that their choice of apartment is influenced by attributes more than by rent differentials.

The calculation used to derive this estimate is as follows:

Table One:

Logarithm

Company	Competitor	Relative	Company Occ./	Relative
Rent	Rent (*)	Rent (**)C	ompetitor Occ.	Occupancy
* * * * * * * *	* * * * * * * * * * * *	*****	* * * * * * * * * * * * * * * *	****
\$350	\$525	0.667	0.021	1.05
\$385	\$525	0.733	0.015	1.03
\$424	\$525	0.807	0.008	1.02
\$466	\$525	0.887	0.001	1.00
\$512	\$525	0.976	(0.007)	0.98
\$564	\$525	1.074	(0.016)	0.96
\$620	\$525	1.181	(0.025)	0.94

- (*) Average Competitor Rent of \$525 per month is based on the surveyed rents in Addendum A.
- (**) Relative Rent is Company Rent divided by Average Competitor Rent.
- (***) The Logarithm of Company Occupancy divided by Competitor Occupancy is calculated using the regression formula found in Addendum "A": LOG = -0.00916 + ((-0.00017*(Company Rent-Competitor Rent)) where all independent variables with the exception of Rent are held constant.
- (****) Relative Occupancy is calculated as 10^(LOG).

Certain attributes had a positive influence on occupancy air conditioning, clubhouses, exercise rooms, outdoor storage, draperies and saunas. With the exception of saunas, the coefficients, regardless of size, as measured by the T-Statistics were not significant. The coefficient for saunas was 0.022889 with a T-Statistic of 2.661795.

There were also attributes which had an adverse effect on occupancy levels - these being the size of the unit and the existence of tennis courts. Square footage had a negative coefficient of -0.00002. Tennis courts had a negative coefficient of -0.01521 which is counter-intuitive. Regardless of size, the coefficients for each of these two variables were not significant.

Only 50% of the variation in relative occupancy was explained by the independent variables. A discussion of possible reasons for this low R squared follows in our analysis of the results.

Graph Number One



Relative Occupancy

(ii) Honolulu

The coefficient for the rent difference was -0.00069, which suggests that a 10% increase in rents at the subject property relative to the competition would cause relative occupancy rates to fall approximately 6 percentage points (see Table Two below). This could suggest that consumers in Honolulu are three times as price sensitive as the Livingston consumers.

The calculation used to derive this relationship is as follows:

Table Two:

Logarithm

Company	Competitor	Relative Com	pany Occ./ Rel	lative
Rent	Rent (*)	Rent (**)Com	petitor Occ.Occ	cupancy
******	*****	*****	****	* * * * * * *
\$300	\$450	0.667	0.078	1.20
\$330	\$450	0.733	0.057	1.14
\$363	\$450	0.807	0.035	1.08
\$399	\$450	0.887	0.010	1.02
\$439	\$450	0.976	(0.018)	0.96
\$483	\$450	1.074	(0.048)	0.89
\$531	\$450	1.181	(0.082)	0.83

- (*) Average Competitor Rent of \$450 per month is based on the surveyed rents in Addendum B.
- (**) Relative Rent is Company Rent divided by Average Competitor Rent.
- (***) The Logarithm of Company Occupancy divided by Competitor Occupancy is calculated using the regression formula found in Addendum "B": LOG = -0.02534 + ((-0.00069*(Company Rent-Competitor Rent)) where all independent variables with the exception of Rent are held constant.
- (****) Relative Occupancy is calculated as 10^(LOG).

The influence of attributes was not as significant in the Honolulu market as it was in the Livingston market. In terms of magnitude, the strongest determining variables were the rent difference (very strong) and children (positive), pets (negative), swimming pools (positive), saunas (negative), exercise rooms (negative), outdoor storage (positive) and washer/dryer connections (positive). Other than the rent difference, the coefficients of the attributes were not significant. Clearly, consumers in this market are price sensitive. The T-Statistic for Rent was 2.20646. Approximately 40% of the variation in relative occupancy was explained by the independent variables. Again, the analysis of results discusses this particular result.



Graph Number Two

RELATIVE OCCUPANCY

(iii) Green Bay

The coefficient for the rent difference was -0.00002, suggesting that a 10% increase in rents at the subject property relative to the competition would cause an insignificant change in relative occupancy (see Table Three below). This suggests that consumers are very price insensitive and that they are swayed by attributes rather than by rent differentials.

The calculation used to derive this relationship is as follows:

Table Three:

Logarithm

Company	Competitor	Relative Comp	pany Occ./ Re	lative
Rent	Rent (*)	Rent (**)Com	petitor Occ.Oc	cupancy
*****	* * * * * * * * * * * *	* * * * * * * * * * * * * * *	* * * * * * * * * * * * * *	*****
\$2 50	\$370	0.676	0.007	1.02
\$275	\$370	0.743	0.006	1.01
\$303	\$370	0.818	0.006	1.01
\$333	\$370	0.899	0.005	1.01
\$366	\$370	0.989	0.005	1.01
\$403	\$370	1.088	0.004	1.01
\$443	\$370	1.197	0.003	1.01

- (*) Average Competitor Rent of \$370 per month is based on the surveyed rents in Addendum C.
- (**) Relative Rent is Company Rent divided by Average Competitor Rent.
- (***) The Logarithm of Company Occupancy divided by Competitor Occupancy is calculated using the regression formula found in Addendum "C": LOG = 0.004510 + ((-0.00002*(Company Rent-Competitor Rent)) where all independent variables with the exception of Rent are held constant.
- (****) Relative Occupancy is calculated as 10^(LOG).

Attributes which had a positive effect on occupancy were clubhouses, outdoor storage, washer/dryer connections and security. Those which had a negative influence were square footage, tennis courts, exercise rooms and draperies.

In terms of magnitude, the strongest determining variables include the influences of square footage, clubhouses, tennis courts, exercise rooms and outdoor storage, but not rent difference.

Approximately 55% of the variation in relative occupancy was explained by the independent variables. Again, the analysis of results discusses this particular result.

Graph Number Three



RELATIVE OCCUPANCY

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(iv) Tucumcari

Data available for the Tucumcari market was insufficient for estimating the model. Whereas the market survey forms completed for the other three markets surveyed competitors of the subject properties, the data sheets for the Tucumcari market compared other properties within the same portfolio with the subject properties. In some instances, competitor projects were surveyed but occupancy data was not obtained. The available data was tested, but the results were found to be statistically not significant.

c. Analysis of Results

The models which were generated for the three regions produced results in which 40% to 55% of the variation in relative occupancy rates were explained by rent differences and the various project attributes. The results were in some respects inconclusive. For example, in Livingston, the model would tend to suggest that if management were to double rents, their occupancy relative to the competition would only drop 20 percentage points. In Green Bay, a doubling of rents would generate an even more favorable result. The following are some of the influences which could be responsible for

these unexpected results:

First, the model is tracking data which is aggregated at the project level. As a result, it assumes that all units of the same type within a project are identical. This of course is usually not the case. Similar unit types within a given project can differ considerably in terms of location and desirability. Some units may be chronically vacant because of poor location or attributes. Other influences which are difficult to quantify and which the model does not identify are general appearance of the property, views, and attentiveness of management. Intuitively, it would seem that their impact on occupancy could be significant.

Second, the model assumes that occupancy is a function of rent. While this is true, it can also be argued that rent is a function of occupancy and should be the dependent variable instead. This is reasonable, since occupancy rates are considered when rent levels are determined. Forecasting either alternative does not significantly change the final outcome. The explanatory power of the model is still too low for a greater degree of determination. Adding to the dilemma is the fact that rent is a function of project attributes, and the amenity level of a project is considered in

determining rent.

A third aspect of the model which may explain variation is the nature of the data itself. In generating the model, a great deal of cleaning had to be performed. Often, inconsistencies in the data were detected. In one Livingston property, for example, three different employees of the subject company surveyed the same subject property; a review of the three surveys revealed inconsistencies in a number of attributes reported. The cleaning process identified a number of such inconsistencies, causing concern about the outcome of the survey. It is likely that the final results could have been adversely affected by inconsistent data.

5. The Performance Graph

An additional model is generated which provides an illustration of how the asset managers are performing in relation to the competition. The same data which was used to formulate the market responsiveness models can be used in this particular application. The data can be used to generate graphs associated with each market which depict performance relationships between the subject properties and competing properties.

Figure Three illustrates a performance graph which presents point estimates representing the same gross revenues, some of these points being:

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Relative	Relative	
Rent	Occupancy	2
(A)	(B)	(A) * (B)
****	*****	* * * * *
0.77	1.30	1.0
0.80	1.25	1.0
0.83	1.20	1.0
0.87	1.15	1.0
0.91	1.10	1.0
0.95	1.05	1.0
1.00	1.00	1.0
1.05	0.95	1.0
1.11	0.90	1.0
1.18	0.85	1.0
1.25	0.80	1.0
1.33	0.75	1.0
1.43	0.70	1.0

Figure Number Three



Relative Occupancy

25 abed Relative Rent

As shown in the performance graph of Figure Three, a line can be drawn through these points to depict those cases where the company's asset managers are neither exceeding nor falling short of the performance of their competitors. This is the "Average Performance Line". Datapoints can be entered in the same manner employed in generating the market responsiveness graphs; each point describes the relationship of the relative rent of a unit type in a project to its relative occupancy rate. Those points which lie to the right of the average performance line reflect situations in which the company has been achieving rent/occupancy combinations which are superior to those being achieved by the competition. In other words, the company is outperforming the market. Datapoints which lie to the left of the line indicate situations of underperformance.

Datapoints which fall to the right of the average performance line indicate projects which are differentiated from the competition. Those which cling to the average performance line indicate product which is basically undifferentiated.

The goal of the operation manager will be to achieve rental rates and respective occupancy rates which, when related to the market, place the property to the right of the line. Such a graphic representation can identify two things - how individual properties are performing, and how all properties in a market are performing relative to the competition. With such information, problem properties can be identified and subjected to closer examination.

This representation provides an overview of performance at the gross income level, which is a useful-indicator of management performance relative to the competition. It serves both as a management reporting tool and provides information to the investors in the projects.

a. Observed Results

(i) Livingston

In generating the Rent/Occupancy Performance Graph, 42 projects were surveyed; this produced 33 observations. As shown in Graph Number Four, when these observations were plotted, 25 data points fell to the right of the average performance line. This suggests that approximately 75% of the time, management at the subject property was outperforming the competition.

Looking back to the market responsiveness model, we find that the analysis tended to suggest that occupancy levels are determined by attributes as well as by rent levels, and that product can be differentiated on the basis of variables other than price. The performance graph suggests that management is doing a good job at differentiating its product from that of the competition.



Graph Number Four

Relative Occupancy

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(ii) Honolulu

Forty six projects were surveyed with 38 observations generated and plotted. Twenty four data points fell to the right of the average performance line. This suggests that approximately 60% of the time, management at the subject properties was outperforming the market. Since the data points are clustered near the relative rent axis and above the average performance line, the graph tends to suggest that management policy has been to push rents in a price sensitive market that is not significantly differentiated. This could explain why management in Honolulu is less successful at outperforming the competition than management in Livingston. Product differentiation appears to be more difficult in Honolulu than in Livingston.



Graph Number Five

RELATIVE OCCUPANCY

(iii) Green Bay

With respect to performance measurement, 58 properties were surveyed and 51 observations were plotted. Twenty seven data points fell to the right of the average performance line. This suggests that approximately 55% of the time, management at the subject properties was outperforming the competition. Because the data points are clustered well to the right of the Relative Rent axis at points above the point of rent equality (1.0 Relative Rent), the graph tends to suggest that management has been pushing rents in the face of a market which responds to product differentiation. The forecasting model suggests that consumers in Green Bay are not as price sensitive as those in Livingston. The 55% ratio of overperformance to underperformance in Green Bay, relative to Livingston's 80% ratio, suggests that management in Green Bay may not be doing as good a job at differentiating itself from the competition.



Graph Number Six

RELATIVE OCCUPANCY

Page 60 Page 60

(iv) Tucumcari

Data available for the Tucumcari market was again insufficient for estimating the model. Whereas the market survey forms completed for the other three markets surveyed competitors of the subject properties, the data sheets for the Tucumcari market compared other properties within the same portfolio with the subject properties. In this sense, if such data were plotted, the graph would only indicate how the company was performing against itself.

V. RECOMMENDATIONS

This study set out to address a number of concerns. The results generated by the models were generally inconclusive. However, they do represent the first step toward improved evaluation and management tools.

The primary question posed by the company was: "How significantly is the company's ability to outprice the competition limited by volume (occupancy) considerations." The model tends to suggest that this is a function of the particular market and the attributes and amenities offered at each project.

The following recommendations are made to the company:

1. Improve Data Gathering

In order to implement an approach to pricing that is responsive to occupancy rates, it will be necessary to accurately collect rent and occupancy data and information on property attributes for both company and competitor properties. Competitor properties must be carefully qualified for comparability. Data should be collected and

compiled in a consistent fashion for all properties in all markets and regions so as to produce comparable results. Data gathering should be carried out by objective personnel; resident property managers and group asset managers and their staff may have a built-in bias since their performance evaluation is based on the same information that they are gathering.

2. Perform Portfolio Reviews

The relative price/occupancy performance model provides a tool for evaluating the properties in the company's portfolio and should be applied to regular evaluations. The model has limitations in its ability to fully evaluate performance, however, it is only one of a number of conceptual techniques which can be employed for this purpose. It focuses on gross revenues and disregards the influences of operating expenses, future expenditures, and asset value. The goal of a portfolio review is to provide a complete picture of how properties are performing. The information which is required to more fully evaluate performance is a property's current market value, its current net operating income, an estimation of future revenue growth (which to some degree can be estimated by the relative price/occupancy model), an

estimation of future operating expenses and capital expenditures, and an estimation of future capitalization rates to gauge anticipated market values. Regular performance evaluation taking into consideration these factors can be a valuable management tool.

3. Consider Expanded Price/Occupancy Analysis

An improved level of sophistication in determining apartment rents could be achieved with the implementation of the type of analysis described in Chapter VI below. While the establishment of an adequate database and the setting up of the model would be costly and time consuming, the long-run benefits would be worth the effort. The procedure would more than likely pay for itself through increased revenues derived from its implementation.

4. Implement Responsive Pricing

The rental performance reports used in the Southwest region are a starting point for rent setting which takes occupancy rates directly into consideration. The use of full occupancy or pro-forma occupancy rates as a target should be replaced with an approach which is sensitive to local market

conditions and consumer response. Pricing needs to be directly responsive to occupancy levels. Implementation of pricing which is responsive to occupancy rates will both allow and justify lower occupancy rates.

5. Abandon Target Rents and Occupancy Rates

Aligning rents to predetermined levels and striving for full occupancy under all market conditions is not an optimal strategy. Given that neither full occupancy nor maximum achievable rents will necessarily satisfice profitability, basing performance on measures other than realization of target rent levels or full occupancy should improve profitability. New criteria for performance need to be established. These could include more sophisticated criteria directly involving revenue or profit, or consist of rent and/or occupancy targets that are derived from a more analytical approach to pricing.

An Alternative Methodology

The sensitivity of consumers to price changes can be gauged estimating the probability of an occupied unit becoming vacant if rent is increased by a certain amount. This is

more likely to be accomplished through a unit by unit analysis than by studying aggregate project data.

The model which could be formulated would be a logit model, in which the occupancy status of a unit would be the dependent variable. If it is vacant, the value ascribed to it would be "1", and if it is occupied, "0". The independent variables would include a number of characteristics:

- (a) Rent
- (b) Number of days vacant
- (c) Location characteristics within the complex
- (d) Physical characteristics (ie. number of bedrooms, number of bathrooms, square footage, etc.)
- (e) Project characteristics (ie. number of units in the building, number of buildings in the complex, etc.)
- (f) Neighborhood characteristics (ie. which suburb, community income, etc.).

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Repression	Dutput:							
Constant		-0.00301						
Std Err of Y Est		0.021182						
R Squared		0.313060						
No. of Observations		23						
Degrees of Freedom		23						
	RENT	AGE .	AREA	CLUBHSE	TENNIS	EIC. RH.	STORAGE	DRAPERIESELECTR.
I Coefficient(s)	~0.0002	7 -0.00009	-0.00003	0.007798	-0.01063	0.008590	0.015319	0.015838 -0.00019
Std Err of Coef.	9.00012	9 0.001108	0.000044	0.010911	0.010074	0.009763	0.009515	0.009374 0.006604
T Statistic		8 -0.08922	-9.82422	0.714727	-1.05536	0.879846	1.609901	1.689575 -0.02944

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Regression Dutput	t:							
Constant		-0.01021						
Std Err of Y Est		0.018452						
R Squared		0.478680						
No. of Observations		22						
Degrees of Freedom		23						
	RENT	AGE	AREA	CLUBHSE	TENNIS	EIC. RH.	STORAGE	DRAPERIES SAUNA
I Coefficient(s)	-0.00017	0.000029	-0.00002	0.002939	-0.01760	0.006574	0.010446	0.005838 0.023515
Std Err of Coef.	0.000117	0.000962	0.000039	0.009662	0.009090	0.008513	0.008414	0.008751 0.008698
T Statistic	-1.49108	0.030154	-0.61432	0.304182	-1.93616	0.772280	1.241507	0.672914 2.703348

Regression Du	tput:							
Constant		-0.00906						
Std Err of Y Est		0.018192						
R Squared		0.493265						
No. of Observations		22						
Degrees of Freedom		23						
•	RENT	AIR	AREA	CLUBHSE	TENNIS	EXC. RK.	STORAGE	DRAPERIES SALWA
I Coefficient(s)	-0.00017	0.002599	-0.00002	0.002764	-0.01521	0.005111	0.009434	0.002862 0.022839
Std Err of Coef.	0.000113	0.010561	0.000037	0.009134	0.009182	0.008519	0.008333	0.009393 0.008599
T Statistic	-1.57082	0.B14204	-0.76452	0.302687	-1.65668	0.599981	1.132124	0.304690 2.661795

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												Exercis	T.V./	Dutside	Nash/Dry	Patio or		Securi	Arr	Elec. Incl	Gas Incl.
						Child.	Pets	Clubhse.	Pools	lenn15	Sauna	Roos	Cable	Storage	Connectio	Balcony	Draperses	Interc	Cond.	In Rent	In Rent
Project	Competitor			Aos	Souare	Yes=1	Yes=1	tes=1	Yessi	tes=1	185=1	185=1	Yes=)	12521	Yes=1 Nor0	Tes=1 No=0	185=) bes0	165=) Mozi)	105=) Nox0	125=)	125=1 Not0
Kunder	Auaber	Rent O	CEUBANCY	(Yrs.)	Foctage	ND#U	NOTU	ND=V	RD=V	MD-V		NU-V	NU-V		NU-V		********	*******	******	*********	
******	***********		********		******** 875	•••••••				1	1		1	1	1	1	1	0	1	0	0
1	0	2200	85.66	2.0	7/7			;	:	:						i	i	1	1	ò	0
	1	5460	73.01	2.0	515		;	,	;	i	i		i		0	å	i	0	1	0	0
	4	****	81.07	7.0	874	Ň		;	;	÷			1	i I	0	1	1	i	1	0	0
		2413	10.01		871			;	÷	÷	i	0	1		ů.	1	1	1	1	Ó	Ó
		3303	100.01	5.0	818	1				:				 	0	i	1	0	1	0	ŏ
	,	3450	300.01	1.0	207				1		ò	0		1	0	i	i	i	1	Č.	Ó
		3430	80.44	1.0	707 801				÷		ő	ő	1		0	i	1	1	1	6	ò
	-	2437 #7/A	78.01	17.0	745	Ň	1	1	i	i	Ó	ŏ		0	0	i	i	1	1	Ó	ů.
		8 JOU 6775	87 67	13.0	700			;	÷	ī	1	1				i	1	Ó	i	Ō	ò
	, ,	83/J 8885	97.01	7.0	955		1	÷	i	1	ō	1	1	i i	Ó	i	1	1	1	Ó	Ó
	11	****	84.01	2.0	915	i	1	1	1	ī	1	Ō	1	1	Ó	1	1	1	1	Ġ	0
-	17	4770	98.07	8.0	574	1	1	ů.	ő		0	0	1	0	Ó	ī	1	0	0	0	0
,		\$440	87.01	3.0	739	ī	1	i	1	i	1	0	1	1	Ó	1	1	0	1	0	0
2		6495	58.07	2.0	877	0	1	1	i	1	1	1	1	1	0	1	1	1	1	. 0 .	0
;	;	\$179	R4.07	4.0	576	1	1	Ō	Ō	0	0	0	1	Ó	0	1	1	0	0	٥	0
2	i	1778	97.07	6.0	574	1	1	Ó	0	0	0	0	1	0	0	1	1	0	0	0	0
,		\$475	99.01	1.0	835	ī	i i	i T	1	1	• 1	1	1	1	1	• 1	1	0	1	0	0
· •	Ś	\$411	94.GZ	2.0	629	0	1	1	1	0	· 1	1	1	1	1	1	1	1	1	0	0
2		\$337	94.01	6.0	576	1	1	0	0	0	0	0	1	0	1	1	1	0	1	0	0
2	7	\$\$25	99.02	3.0	750	0	0	1	1	1	1	0	1	0	0	1	1	1	1	0	٥
2		\$435	94.0I	1.0	735	0	1	1	1	1	1	- 0	1	1	0	1	1	1	1	0	0
2	9	\$455	80.62	1.0	974	0	0	1	1	1	0	0	1	6	0	1	1	0	1	0	0
2	10	\$329	97.0I	7.0	576	1	1	0	0	0	0	0	0) 0	0	1	1	0	0	0	0
3	0	\$440	92.02	1.0	760	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	0
3	1	\$435	94.0I	1.0	735	0	1	. 1	1	1	1	0	1	1	0	1	1	1	1	. 0	0
3	2	\$445	98. OZ	1.0	702	1	1	1	· 1	1	1	1	1	. 0	0	0	1	1	1	0	0
2	2	¥425	78.0I	2.0	657	1	1	1	1	1	1	0	1	. 0	0	1	1	1	1	0	. 0
3	4	\$395	100.01	2.0	687	1	1	1	1	1	1	1	1	0	1	1	1	1	1	.0	0
3	5	\$420	100.01	1.0	770	1	1	1	1	1	1	1	1	. 1	0	1	1	0	1	0	0
2	6	\$380	97.01	2.0	738	1	1	0	1	0	0	0	1	. 0	0	1	1	0	1	0	0
3	7	\$375	96.0I	3.0	74B	1	1	0	í	. 0	0	0	1	0	1	1	1	1	1	0	0
2	8	\$395	100.07	3.0	746	1	1	0	1	0	0	0	1	1	0	0	1	0`	1	0	0
2	9	\$440	92.0I	1.0	750	1	1	3	1	1	1	1	1	1	1	1	1	1	1	0	0
3	10	\$430	72.02	3.0	629	1	1	0	1	1	0	0	1	1	0	1	1	1	1	0	0
2	11	\$375	75.01	4.0	783	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0
2	12	\$420	100. OZ	4.0	770	1	1	1	1	1	1	1	1	1	0	1	1	1	1	0	0
2	13	1 435	100.01	4.0	826	1	1	1	1	1	0	0	1	1	0	1	1	1	1	0	0
3	14	\$327	100.01	6.0	576	1	1	0	0	0	0	0	1	0	0	1	1	0	1	0	. 0
3	15	\$385	100.01	7.0	875	0	0	1	1	• 1	0	. 0	1	1	0	1	1	1	1	0	0
4	0	\$430	87.01	4.0	712	1	1	1	1	1	0	0	1	1	0	1	1	0	1	0	0
4	1	\$475	100.01	4.0	850	1	1	1	1		0		1	0	0	1	1	0	1	0	V
4	2	\$452	100.01	1.9	700		1	1	1	1	0		1	1	. 1	1	1	1	1	đ	U
4	3	\$339	100.01	Z.0	5/6	1	1	. 0	0	0	0		1	0	0	1	1	0	•	0	U
4	4	\$440	85.01	1.0	648	0	0	1	1	0		1	1	1	1	1	1	0	1	0	U
- 4	5	94Z	100.01	1.0	664	1	1	1	3	1	1	0	1	1	0	1	1	1	1	0	v

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		LGG 1	RELRENT	RENTDIF.	APEDIF.	AREADIF.C	HILDDIF.PET	SDIF. CLI	UBHSDIF PI	DOLDIF.TE	WNISDIFSAU	WADIF.	EIRODADIF S	STERDIF. I	MASHDIF.PAT	1001F	SECDIF.	AIRCONDI	F ELECTDI	F GASDIF	. TVDIF.	. DRAPI)IF.
0()	.)/0(c)0(a)/D(c)R	(1)/R(c)R	(x)-R(c)D	(z)-D(c)	D(x)-D(c)D	(x)-D(c)D(x)-D(c)D(1	.)-D(c)D(;	n)-D(c)D(:	x)-D(c)D(x)-D(c)	D(x)-D(c)D	(x)-D(c)D	(x)-Dic)Dix)-D(c)	D(x)-D(c)	D(x)-D(c	1D(x)-D(c)D(x)-D(c)D(x)-D(r	c)D(x)-C)(c)
	0.874	(0.059)	1.037	40	0.0	364	0	0	0	0	0	0	(1)	0	1	0	(1)	0		0	f	0	0
	0.943	(0.025)	1.235	95	1.0	277	1	0	0	0	0	0	(I)	1	1	1	0	0	0	0	(0	0
	0.917	(0.040)	1.205	85	(5.0)	153	1	0	0	0	0	1	0	0	1	0	(1)	0	0	0		0	0
	0.230	(0.081)	0. 990	(5)	(3.0)	153	1	0	0	0	0	0	0	0	1	0	(1)	0	0	0	1	٥	0
	0.830	(0.081)	1.111	50	(2.0)	131	0	0	٥	٥	0	0	0	0	1	0	0	0	• •	0	(0	0
	0.943	(0.025)	1.111	50	(1.0)	272	1	0	0	0	0	1	0	0	1	0	(1)	0	0	0	f	\$	0
	0.847	(0.072)	1.089	41	(4.0)	478	1	1	1	0	0	1	0	1	I	0	(1)	0	0	0	f	9	0
	0.830	(0.081)	1.389	140	(11.0)	214	0	0	0	0	0	1	0	1	1	0	(1)	0	0	0	1	٥	0
	0.854	(0.068)	1.333	125	(12.0)	279	1	1	0	0	0	0	(1)	1	1	٥	0	0		0	1	8	0
	1.000	0.000	1.174	55	(1.0)	24	0	0	0	0	0	1	(1)	1	1	0	0	0	0	0	1	5	0
	0.945	(0.015)	1.111	50	0.0	64	0	0	0	0	0	0	0	0	1	0	(1)	0	0	0	(9	0
	0.847	(0.072)	1.475	161	(6.0)	403	0	0	1	1	1	1	0	1	1	0	0	1	0	0		ð	0
	1.500	0.176	0.887	(55)	1.0	(83)	1	0	0	0	0	0	(1)	0	0	0	0	0	0	0		8	0
	1.012	0.005	1.337	111	(3.0)	163	0	0	1	1	1	1	0	1	0	0	0	1	0	0		5	0
	0.897	(0.047)	1.298	101	(3.0)	163	0	0	1	1	1	1	0	1	0	0	0	1	. 0	. 0		0	0
	0.879	(0.056)	1.035	15	2.0	(96)	0	0	8	0	0	0	(1)	0	(1)	0	0	0		0		5	0
	0.976	(0.034)	1.071	29	1.0	110	1	0	0	0	1	0	(1)	9	(1)	0	· (1)	0	0	0	· · (ð	0
	0.976	(0.034)	1.298	101	(3.0)	163	0	0	1.	1	1	1	· 0	1	0	0	0	0	0	0	(3	0
	0.879	(0.054)	1.035	15	0.0	(11)	1	1		0	· •	0	0	1	0	0	(1)	0	0	0		8	0
	0.976	(0.034)	1.011	5	2.0	4	1	0	0	0	0	0	0	0	0	0	(1)	0	9	0	1	ð	0
	1.088	0.036	0.967	(15)	2.0	(235)	1	1	0	0	0	1	0	1	٥	0	0	0	0	0		5	0
)	0.897	(0.047)	1.337	111	(4.0)	163	0	0	1	1	1	1	0	1	0	0	0	1	0	0	1	1	0
	0.979	(0.007)	1.011	5	0.0	25	1	0	0	0	0	0	1	0	1	0	0	0	0	0	(ð	0
	0.939	(0.077)	0.989	(5)	0.0	58	0	0	0	0	0	0	0	1	1	1	0	0	0	0		8	0
	1.179	0.077	1.035	15	(1.0)	103 -	0	0	0	0	0	0	1	1	1	0	0	0	0	0		0	0
	0.970	(0.034)	1.114	45	(1.0)	73	0	0	0	0	0	0	0	1	0	0	0	Ô	0	0		ð	0
	0 970	(0.034)	1.048	20	0.0	(10)	0	0	0	0	0	0	0	0	1	0	1	0	. 0	0		ð	6
,	0.949	(0.073)	1.158	40	(1.0)	22	Ó	0	1	0	1	1	1	1	1	0	1	0	0	0	6	3	0
	0.958	(0.01R)	1.114	45	(2.0)	12	0	0	i	0	1	1	. 1	1	0	0	0	0	0	0		4	0
	0.970	(0.036)	1.114	45	(2.0)	14	0	0	1	0	1	1	1	0	1	1	1	0	0	0		3	0
	1.000	0.000	0.957	(20)	0.0	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0)	0
	1.000	0.000	1.073	10	(2.0)	131	0	0	1	0	0	1	1	0	1	0	0	0	0	0		۱	0
	0.948	(0.014)	1.114	45	(3.0)	(23)	Ó	0	0	0 -	0	0	0	0	1	0	0	0	0	0	¢)	0
	0 920	(0.034)	1.048	20	(3.0)	(10)	Ó	0	0	0	0	0	0	0	1	0	. 0	0	0	0	¢)	0
	0 970	(0.034)	1.011	5	(5.0)	(66)	0	Ó	0	ò	0	1	1	0	1	0	0	0	0	0	¢	,	0
	0 970	(0.034)	1 344	113	(5.0)	184	à	0	1	1	1	1	i	1	1	0	1	0	0	0	¢	;	0
	0.970	(0.034)	1.143	55	(6.0)	(115)	1	ī	ō	Ō	ò	1	1	ō	1	0	ò	6	Ó	0	1	,	0
	6 990	(0.051)	1.017	5	0.0	(138)	ō	Ō	Ó	ō	1	Ô	Ó	1	0	0	0	0	0	0	0)	0
	0.070	(0. 051)	0 951	(77)	3.0	12	.1	ò	0	ò	0 -	0	0	Ō	(1)	0	(i)	Ó	Ó	0	į	,	0
	0 990	10 0511	1.768	91	2.0	136	ò	ò	i	1	i	Ö	Ō	1	0	Ó	0	1	Ó	Ó	ė)	0
	1 647	0 020	6 977	(10)	3.0		1	1	0	. 0	1	ò	(j)	ō	a)	0	Ô	ò	0	0	ė	,	0
	1.04/	10 0511	1.017	5	3.0	28	ė	ō	ŏ	ō	ò	- m	0	ů.	0	Ó	(i)	ŏ	0	ő	e	,	0
	V. 8 7V	10.0317	1.411				•	•	•	•	•		•	•	-	•		•			•		-

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Regression Dutput: Constant -0.02534 Std Err of Y Est 0.042795 R Spuared 0.378508 No. of Observations 42 Degrees of Freedoa 27 PENTITE AEFDIF AFDIF

 RENTDIF. AGEDIF. AREADIF.CHILDDIF.PETSDIF. CLUBHSDIF POOLDIF.TEWHISDIFSAUWADIF.EIRODMDIF STORDIF. WASHDIF. PATICDIF

 I Coefficient(s)
 -0.00009
 0.0022425
 -0.03358
 0.012209
 0.032021
 -0.00229
 0.018497
 -0.022756
 0.022438
 0.018512
 -0.01887
 0.011673

 Std Err of Coeff.
 0.000316
 0.003577
 0.022012
 0.037274
 0.037927
 0.027140
 0.019948
 0.017818
 0.016025
 0.031342
 0.016765

 T Statistic
 -2.20646
 -0.00495
 1.1273561
 -1.19887
 0.254392
 0.943840
 -0.02659
 0.927261
 -1.61474
 1.259298
 1.15216
 -0.60224
 0.640397

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												Exercis		Dutside	Hach / Dev	Patin m		Saruri	Air	Flar, Incl	Sas Incl
						Child.	Pets	Clubhse.	Pools	Tennis	Sauna	Roos	able	Storage	Connectio	Balconv	Draperses	Interc	Cond.	In Rent	In Kent
Project	Competitor			Ape	Souare	Yes=1	Yes=1	Yes=1	Yes=1	Yes=1	Yes=1	Yes=1	Yessi	Yes=1	tes=1	ies=1	tes=1	105=1	Yes=1	tes=1	Yes=1
Kuaber	Kusber	Rent	Occupancy	ttrs.	Footage	No=0	No≈0	No≂O	ho=0	ko=0	No=0	No=0	No=0	Ko=0	Nc=0	No=0	ko=0	No=0	No=0	Nc≠Ú	No=0
******	*******	*****	******	*****	• • • • • • • • • •	******	******	*******	******	*******	******	*****	*	*******	*******	******	********	******	*******	*******	*******
1	0	\$325	90.01	12.0	780	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0
1	1	\$320	97.01	10.0	696	0	0	1	1	0	0	0	0) 0	1	0	0	0	0	0	0
1	1	\$290	98.51	14.0	750	0	0	1	1	1	0	0	1	0	1	0	0	0	0	0	0
1		3320	90.01	15.0	757	Ň			,	1		0	0		0	0	0	0	0	0	
	, i	1380	81.0A 85 ()7	10.0	130	Ň		1		1	Ň	Å	0			0	U .				
i	, i	\$350	85.07	3.0	752	ů	ò	i	i	 1	ó	0			;	~		Ň	Ň	Å	Ň
i	Ť	\$390	93.01	12.0	661	ŏ	1	ī	1	i	ő	ŏ	1	, v		1	ň	6	0	0	Å
i	8	\$380	95.0Z	2.0	715	1	1	i	1	1	0	0	1	1	i	i	0	1	ő	0	ò
1	9	\$460	94.02	2.0	B64	0	1	1	1	1	0	0	1	. 1	i	1	1	ō	0	Ó	Ó
1	10	\$310	92.01	14.0	689	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0
1	11	\$320	97.QZ	15.0	B50	0	٥	1	1	1	0	0	0	0	1	0	0	0	0	0	0
1	12	\$370	95.CI	2.0	702	1	1	1	1	1	1	0	1	1	1	1	0	0	0	. 0	0
Z	_	\$375	95.0I	5.0	640	0	1	1	1	1	0	0	0	• •	1	1	1	0	0	0	0
2	1	\$4/3	100.01	8.0	8/0	0	0	1	1	0	0		0	0	0	0	0	0	0	0	0
2	1	2040 2775	91.01	8.V 9.0	750			1	1			0	0			0	0				0
;	i	\$375	89.02	8.0	900		ŏ	0	0	ő			U 0								
2	5	\$355	93.0Z	12.0	636	Ó	ō	ō	- o	Ő	Ó	. 0	0				ő	ŏ	ő	6	ů.
2	6	\$380	95.01	9.0	685	0	0	0	0	0	0	0	ő		1	ō	i	ō	0	ő	. 0
2	7	\$340	89.CI	6.0	660	0	0	0	0	0	0	0	Ó	Ó	Ó	0	1	Ó	0	0	0
2	R .	\$210	96.CI	15.0	728	0	0	. 0	0	0	0	0	1	0	0	0	0	0	0	0	0
1 2	9	\$345	91.02	16.0	855	0	0	1	1	1	0	0	1	0	1	0	0	0	0	0	0
2	10	\$310	97.02	B.0	610	. 0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0
) ²	11	8380	98.CZ	18.0	754	0	0	0	1	0	0	0	0	0	1	1	• 0	0	0	0	0
ı ,	12	3000	94.02	10.0	/85	0		1	1	1		0	1	0	1	0	0	0	0	0	0
2	13	8321	TV.UL	10.0	633 675		Ň	С		, I	v	v	1	0	1	0	0	0	0	0	0
;	15	\$340	90.01	15.0	750	0	ő	0	1	1	Ň	0	1	0	0	0	0	0	0	v	v ^
2	16	\$300	99.01	12.0	798	ŏ	ŏ	ő	i	ċ	0	0			1		۰ ۸	~		۰ ۸	×
3	0	\$390	99.CI	3.0	680	ō	i	i	1	1	ò	Ó	Ň	ĩ	1	1	ň	ň		ŏ	6
3	1	\$390	95.0I	2.0	738	1	ī	1	1	- 0	0	0	ĩ	÷		÷	1	ŏ	ő	6	
2	2	\$322	85.CI	2.0	696	1	1	1	1	i	1	1		0	1	1	0	ō	ō	ő	ů.
2	2	\$360	96.CI	8.0	619	0	1	1	1	1	0	0	1	1	1	1	t	0	0	٥,	0
3	4	\$340	92.CI	6.0	640	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0
3	5	\$425	98.01	B.0	802	0	1	1	1	1	0	0	1	1	1	1	٥	1	0	0	0
5		\$440	88.01	5.0	111	0	1	1	1	1	0	0	0	1	1	1	1	0	0	0	0
	,	3440	95.02	10.0	120	0	0	0		1	0	0	1	0	1	0	1	0	0	0	0
3		8400	80.01 98 N7	5.0	784			v	1	1			1	0	1	0	0	0	0	0	0
3	10	\$385	95.07	4.0	720	ĩ	1			;	Ň	0		0		1	0.	1	0		
3	11	\$435	92.01	6.0	829	0	i	i	i	1	ő	ō	1	1	1	1	U A	v 6	U A	· •	v 6
3	12	\$440	94.GI	9.0	602	0	Ō	Ō	Ó	Ó	Ó	Ó		0	1. 0	1	0	6	0	0	0
2	13	\$390	91.01	4.0	735	1	1	1	1	1	Ó	Ó	1	1	1	· 1	ő	1	ő	0	Ď
3	14	\$440	83.CI	3.0	782	0	1	1	1	1	0	0	1	1	i	i	Ő	ò	0	0	ō
4	0	\$350	93.02	4.0	650	1	1	1	i	1	0	0	Ó	0	1	1	1	0	0	Ó	0
4	1	\$230	95.CI	7.0	650	0	1	1	1	1	0	0	1	1	1	1	0	1	0	0	0
4	2	\$350	90.0I	7.0	650	0	1	0	1	1	0	0	1	1	1	1	0	0	0	0	0
	3	\$ 702	90.CI	17.0	600		0	0	1	0	0	0	1	0	0	0	0	0	0	0	0
4	•	لاندلا	46.UI	4.0	415	1	1	1	1	1	Ø	1	1	1	1	1	0	1	0	0	0

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Addendum C

4	5	\$410	80.CZ	3.0	725	0	1	1	1	1	1	1	1	1	1	1	1	1	0	0	0
4	6	\$375	95.01	3.0	640	0	1	1	1	1	0	1	1	1	1	1	0	0	0	0	Ó
5	0	\$400	89.CI	3.0	685	0	1	1	1	1	0	1	i	1	1	1	1	0	0	Ó	Ó
5	1	\$370	95.02	2.0	702	1	1	1	1	1	1	0	1	1	1	i	0	0	0	0	ò
6	0	\$460	78. CI	2.0	794	0	1	0	1	0	0	0	1	1	1	1	1	0	0	0	Ó
4	1	\$445	85.0I	2.0	716	0	1	1	1	1	1	0	1	0	1	1	1	1	0	0	0
4	2	\$385	95. OZ	1.0	680	0	1	1	1	1	0	0	1	1	1	1	1	1	0	0	ċ
6	3	\$445	90.0Z	1.0	657	1	1	1	1	1	0	0	1	11	0	1	1	0	0	0	ō

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	LDG	RELRENT	RENTDIF.	AGEDIF.	AREADIF.	CLUBHSDIFTI	ENNISDIFE	IROOMDIF S	STORDIF.	WASHDIF.	DRAPDIF.	SECDIF.	AIRCONDIF EL	ECTDIF	GASDIF.PET	SDIF.	POOLDIF.CHI	LDDIF.	PATIODIF	SAUNADIF.	TVDIF.
D(x)/O(c)	0(x)/0(c)I	R(x)/R(c)	R(x)-R(c))	D(x)-D(c)	D(x)-D(c)	D(x)-D(c)D	(x)-D(c)D	(x)-D(c)D((x)-D(c)D	(x)-D(c)	D(x)-D(c)D	(x)-D(c)	D(x)-D(c)D(x	()-D(c)D(x)-D(c)D(x)-D(c)D	(x)-D(c)D(x	()-D(c))	D(x)-D(c)	D(z)-D(c)	D(x)-D(c)
0.928	(0.033)	1.016	5	2.0	84	0	1	0	0	(1)	0	0	0	0	0	0	0	0	0	0	0
0.918	(0.037)	1.121	35	(2.0)	30	0	0	0	0	0	0	0	0	0	0	0	. 0	Ň	0	U A	
0.918	(0.03/)	1.015		(3.0)	23	0	0	0	0	0	0	U	0	Ň	~		0	Ň		0	v A
1.011	0.005	0.903	(22)	(4.0)	50	0	1	0	0	0	0	0	0	v	0		v ú		0	U A	~
0.947	10.023)	0.823	(70)	7.0	84	0	U	0	0	(1)	0	0	•	•	, ,	0	~		0	0	•
1.059	0.025	0.929	(25)	9.0	28	0	0	0	0	(1)	0	Ű	0	•	v •		v 0				
0.968	(0.014)	0.633	(65)	0.0	119	0	0	0	0	(1)	0	0	0	, ,		(1)	0				
0.947	(0.023)	0.855	(55)	10.0	65	0	0	0	0	(1)	0	(I) (I)	0	Ű	v		0	<u> </u>	11)	0	
0.957	(0.019)	0.707	(135)	10.0	(84)	0	0	0	(1)	(1)	(1)	0	0	, ,				v	(L) (L)		
0.978	(0.010)	1.048	15	(2.0)	91	0	1	0	0	0	0	0	Ů	0	v		L L	0	0	U	. V
0.928	(0.033)	1.016	5	(3.0)	(70)	0	0	0	0	0	0	0	.0	U	0		0		0		V ///
0.947	(0.023)	0.878	(45)	10.0	78	0	0	0	(D)	(1)	0	0	U	, U	0	0.	U			- m	111
0.950	(0.022)	0.789	(100)	(3.0)	(230)	0	1	0	0	1	1	0	0	0	0	1	0	0	1	0	U A
1.044	0.019	1.103	35	(1.0)	(10)	0	0	0	0	1	1	0	0	0	0	1	0	0	1	0	U
0.990	(0.005)	1.056	20	(3.0)	(110)	1	1	0	0	1	1	0	0	U O	0	1	1	0	1	0	U A
1.067	0.028	1.154	50	(3.0)	(260)	1	1	0	(1)	0	1	0	0	0	0	1	1	0	0	0	0
1.022	0.009	1.056	20	(7.0)	4	1	1	0	0	1	1	0	0	0	0	1	1	0	1	0	v
1.000	0.000	0.987	(5)	(4.0)	(45)	1	1	0	0	0	0	0	0	0	0	1	1	0	1	0	0
1.067	0.028	1.103	32	(1.0)	(20)	1	1	0	0	1	0	0	0	0	0	1	1		1	0	0
0.990	(0.005)	1.210	65	(10.0)	(88)	1	1	0	0	1	1	0	0	Q	0	1	1	0	1	0	0
1.044	0.019	1.087	30	(11.0)		0	0.	0	0	0	1	0	0	0	0	1	0	0	1	0	(I)·
0.979	(0.009)	1.210	65	(3.0)	. 30	0	1	. 0	0	0	1	0	. 0	0	0	1	1	. 0	1	0	0
1.043	0.018	1.070	25	8.0	(29)	(1)	(1)	0	0	0	0	Q	0	0	0	0	0	0	1	0	(1)
1.089	0.037	1.162	53	8.0	99	0	(1)	0	0	0	0	0	0	0	0	0	0	0	1	0	(<u>)</u>
1.000	0.000	1.169	55	4.0	- 79	- 0	0	0	0	· 1	,0	0	0	0	0	0	0	0	1	0	an an
1.089	0.037	1.056	20	3.0	4	0	(1)	0	0	0	0	0	0	0	0	0	0	0	1	0	0
0.990	(0.004)	1.267	80	6.0	· (44)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0
1.042	0.018	1.000	0	1	(58)	0	1	0	0	0	(1)	0	0	0	0	0	0	(1)	0	0	0
1.165	0.066	1.099	35	1	(16)	0	0	(1)	1	0	0	0	0	0	0	Ū	0	0	0	ហ	. (1)
1.031	0.013	1.083	30	(5)	61	0	0	0	0	0	(1)	0	0	0	0	0	0	0	0	0	<u>(1)</u>
1.076	0.032	1.083	30	(3)	40	1	0	0	1	1	0	0	0	0	0	1	0	0	1	' 0	0
1.010	0.004	0.918	(35)	(5)	(122)	0	0	0	0	0	0	(1)	0	0	0	0	0	0	0	0	0
1.125	0.051	0.886	(50)	(2)	(91)	0	0	0	0	0	(1)	0	0	0	0	0	0	0	0	0	Ū.
1.042	0.018	0.886	(50)	(7)	(40)	1	0	G .	1	0	(1)	0	0	0	0	1	0	0	3	0	(1)
1.238	0.093	0.886	(50)	(3)	(135)	1	0	0	1	0	0	0	0	0	0	1	0	0	1	0	(1)
1.010	0.004	0.975	(10)	(2)	(104)	0	0	0	1	0	0	(1)	0	0	0	1	0	0	0	0	(1)
1.042	0.018	1.013	5	(1)	{40}	0	0	0	0	0	0	0	0	0	0	0	0	- m	0	0	(1)
1.076	0.032	0.B97	(45)	(3)	(149)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1.053	0.023	0.886	(50)	(6)	78	1	1	0	1	1	0	0	0	0	0	1	1	0	v	0	0
1.088	0.037	1.000	0	(I)	(55)	0	0	0	0	0	0	0	0	0	0	0	0		U	0	(1)
1.125	0.051	0.886	(50)	0	(108)	0	0	0	0	0	0	0	•0	0	0	0	0	0	0	9	(1)
0.979	(0.007)	1.061	20	(2)	0	Û	0	0	0	0	1	(1)	0	0	0	0	0	1	0	0	11)
1.033	0.014	1.000	0	(3)	0	1	0	0	(1)	0	1	0	0	0	0	0	0	1	. 0	0	(1)
1.033	0.014	1.148	45	(13)	50	1	1	0	0	1	1	0.	C	0	0	1	0	1	1	0	(1)
0.969	(0.014)	1.061	20	0	15	0	0	(1)	(1)	0	1	(1)	0	0	0	0	. 0	0	0	<i>0</i>	(1)
1.163	0.065	0.854	(20)	1	(75)	0	0	(1)	(1)	0	0	0	0	0	0	0	0	1	0	(1) (1)	11)
0.979	(0.007)	0.933	(25)	1	10	0	0	(1)	0	0	1	0	0	0	0	0	0	1	0	. 0	(I) ^
0.937	(0.028)	1.081	20	1	(17)	0	0	1	0	0	1	0	0	0	0	0	0	01	0	(1) (1)	0
0.918	(0.037)	1.034	15	0	78	(1)	(1)	0	1	0	0	(1)	0	0	0	0	0 '	0	0	0	0
0.821	(0.086)	1.195	75	1	114	(1)	. (1)	0	0	0	0	(1)	0	0	0	0	0	0	0	C C	0
0.867	(0.062)	1.034	15	1	137	(1)	(1)	0	(10)	1	0	0	0	¢	0	0	ņ	ш.	0	Ø	Q

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Regressio	n Dutput:															
Constant	-	0.00507														
Std Err of Y Est	0	. 025837														
R Squared	0	.583269														
No. of Observation	5	51														
Degrees of Freedom		34														
	RENTDIF.	AGEDIF.	AREADIF.	CHILDDIF.	PETSDIF.	CLUPHSDIA	POOLDIF.	TENHISDI	FSAUNADIF.	EIRODMDIF.	TVDIF.	STORDIF.	WASHDIF.	PATIODIF	DRAPDIF.	SECDIF.
I Coefficient(s)	-0.00002 0	.000834	-0.00011	-0.00193	0.000319	0.025042	-0.00264	-0.01082	-0.01270	-0.02608	-0.01249	0.004470	0.011682	0.006429	-0.01262	0.012054
Std Err of Coef.	0.000117 0	.001183	0.000052	0.009478	0.016890	0.011303	0.01515B	0.010309	0.014138	0.013948	0.007783	0.003096	0.009673	0.014357	0.00B057	0.012027
T Statistic	-0.17286 (.705102	-2.18541	-0.20413	0.048546	2.215420	-0.17418	-1.04987	-0.91251	-1.86975	-1.27686	1.443909	1.207646	0.447801	-1.56586	1.002177

Regressio	n Butput:													
Constant	-0.00503													
Std Err of Y Est	0.025466													
R Squared	0.583240													
No. of Observation	s 51													
Degrees of Freedom	35													
	RENTDIF. AGEDIF.	AREADIF.	CHILDDIF.	CLUBHSDIF	POOLDIF.	TENNISDI	FSAUNADIF	.EXRDONDIA	TVDIF.	STORDIF.	WASHDIF,	PATIODIF	DRAPDIF.	SECDIE.
X Coefficient(s)	-0.00002 0.000805	-0.00011	-0.00199	0.025190	-0.00252	-0.01081	-0.01288	-0.02614	-0.01232	0.004474	0.011733	0.006843	-0.01260	0.011917
Std Err of Coef.	0.000115 0.001009	0.000049	0.009265	0.010733	0.014755	0.010160	0.013931	0.013677	0.007000	0.003050	0.009479	0.011389	0.007938	0.011524
T Statistic	-0.18038 0.797796	-2.31168	-0.21515	2.346926	-0.17110	-1.06461	-0.92486	-1.91176	-1.36899	1.466775	1.237770	0.600833	-1.58792	1.034078
					,									

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Regression	Dutput:	
Constant	-0.00551	
Std Err of Y Est	0.025120	
R Squared	0.582892	
No. of Observations	51	
Degrees of Freedom	36	
. 1	RENTDIF. AGEDIF.	AREADIF.CHILDDIF.CLUBH
X Coefficient(s) -	0.00002 0.000784	-0.00011 -0.00193 0.024

 RENTDIF. AGEDIF. AREADIF.CHILDDIF.CLUBHSDIFTENNISDIFSAUNADIF.EIRODNDIF TVDIF. STORDIF.
 WASHDIF.PATIDDIF
 DRAPDIF. SECDIF.

 I Coefficient(s)
 -0.00002 0.000784 -0.00011 -0.09193 0.024629 -0.01155 -0.01293 -0.02605 -0.01282 0.004525 0.011551 0.006923 -0.01260 0.012113

 Std Err of Coef.
 0.000110 0.000988 0.000048 0.009134 0.010080 0.009084 0.013739 0.013481 0.008397 0.002995 0.009291 0.011225 0.007831 0.011311

 T Statistic
 -0.23578 0.793704 -2.33876 -0.21211 2.443222 -1.27155 -0.94125 -1.93266 -1.52689 1.511111 1.243203 0.616744 -1.60998 1.070901

Regressi	on Output:											
Constant	-0.00	29										
Std Err of Y Est	0.024	94										
R Squared	0.582	70										
No. of Observatio	ns	51										
Degrees of Freedo	•	37										
	RENTDIF. AGED.	F. AREADI	F.CLUBHSDI	FTENNISDI	FSAUNADIF	.EIRCONDI	F TVDIF.	STORDIF.	WASHDIF.	PATIODIF	DRAPDIF.	. SECDIF.
I Coefficient(s)	-0.00001 0.000	43 -0.0001	1 0.024352	-0.01115	-0.01368	-0.02505	-0.01297	0.004429	0.011911	0.006439	-0.01318	0.012286
Std Err of Coef.	0.000104 0.000	37 0.00004	6 0.009866	0.008779	0.013105	0.012462	0.00B255	0.002722	0.009016	0.010848	0.007241	0.011135
T Statistic	-0.18451 0.899	00 -2.4865	9 2.465272	-1.27115	-1.04400	-2.01022	-1.57221	1.515936	1.321026	0.593597	-1.82112	1.103401

Regression Dutput: Constant -0.00237 Std Err of Y Est 0.024582 0.578393 R Squared No. of Observations 51 Deprees of Freedom 23 RENTDIF. ABEDIF. AREADIF.CLUBHSDIFTENNISDIFSAUWADIF.EIROCKDIF TVDIF. STORDIF. WASHDIF. DRAPDIF. SECDIF. X Coefficient(s) 0.000006 0.000371 -0.00012 0.025214 -0.01260 -0.01137 -0.02572 -0.01175 0.005116 0.015028 -0.01303 0.014512 Std Err of Coef. 0.000094 0.000728 0.000044 0.009675 0.008259 0.012409 0.012269 0.008003 0.002660 0.007268 0.007175 0.010395 0.065767 0.939184 -2.82503 2.666120 -1.55042 -0.91677 -2.11315 -1.49358 1.923566 2.067604 -1.81634 1.396022 T Statistic

Regression Output:

Constant	-0.00109
Std Err of Y Est	0.024531
R Squared	0.569068
No. of Observations	51
Degrees of Freedom	39

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 RENTDIF. AGEDIF.
 AREADIF.CLUBHSDIFTENNISDIFEINODKDIF
 TVDIF.
 STORDIF.
 NASHDIF.
 SECDIF.

 I Coefficient(s)
 0.000000
 0.00096B
 -0.0012
 0.02436B
 -0.01332
 -0.02720
 -0.01172
 0.015057
 -0.01207
 0.013813

 Std Err of Coef.
 0.0000920
 0.000044
 0.009611
 0.00222
 0.012164
 0.007983
 0.002620
 0.007253
 0.007084
 0.010346

 T Statistic
 0.001141
 1.052039.-2.78239
 2.535336
 -1.62019
 -2.23673
 -1.46911
 2.101944
 2.075960
 -1.70480
 1.335168

Regression Dutput:

Constant	0.004510
Std Err of Y Est	0.024884
R Squared	0.545220
No. of Observations	51
Degrees of Freedoo	40
-	

 RENTDIF. AGEDIF.
 AREADIF.CLUBHSDIFTENNISDIFTENNOKDIFSTORDIF.
 WASHDIF.
 DRAPDIF.
 SECDIF.

 I Coefficient(s)
 -0.00000
 0.000799
 -0.00013
 0.026937
 -0.01679
 -0.03241
 0.005564
 0.012986
 -0.01232
 0.011903

 Std Err of Coef.
 0.000094
 0.000926
 0.0000944
 0.009586
 0.0011805
 0.002657
 0.007217
 0.00184
 0.010411

 T Statistic
 -0.0783
 0.863145
 -2.96026
 2.809875
 -2.10262
 -2.74554
 2.093577
 1.799345
 -1.71613
 1.143276