Apartment Rent, Concessions and Occupancy Rates

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Abstract. **This paper examines the effects of rental concessions on apartment rent and occupancy rates. Using limited-information maximum likelihood estimation, equations for rent, occupancy and concessions show that landlord-supplied rental concessions have a positive effect on both rent and occupancy rates. Rental concessions seem to provide the landlord a means to collect higher average rent and at the same time to increase occupancy rates. The results also indicate that a negative relationship exists between rent and occupancy rates and that certain amenities, services and occupancy restrictions influence rent.**

Introduction

Landlords seek to maximize profits subject to revenues and costs. Accomplishing this entails maximizing rental revenues within a framework of minimizing vacancy rates and turnover costs.[1] When market competition for tenants is intense, achieving desired occupancy rates may require some form of rental concessions such as free rent or payment of moving expenses.[2] Likewise, reducing tenant mobility necessitates landlord incentives that keep existing tenants.[3]

Rental concessions have become an international phenomenon. Salter (1992) cites an example in London (one of the most depressed markets) where the deal was consummated when the landlord threw in a Range Rover. Salter also cites examples provided by Colliers International such as free kitchen giveaways in Australia and months of free rent in Hong Kong. Sherrod (1992) indicates that rent concessions have been popular to maintain existing renters and attract new ones in Chicago. McCarthy (1992) writes that the Grupe Company boosted apartment occupancy in Sacramento by offering extensive concessions.[4]

While rental concessions have become a very real occurrence, limited information exists about their effect on the rental market. This paper focuses on two important questions: (1) the extent, at the margin, to which concessions affect nominal rents charged by landlords and (2) the extent to which concessions influence occupancy rates. Alternatively stated, the issue is: When a factor such as a rental concession is introduced into the market, what effect does it have on the market equilibrium trade-off of rent and occupancy?

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Sirmans, Sirmans and Benjamin (1990) recently examined the effect of concessions on rent and occupancy. They find that rental concessions have a positive effect on both rent and occupancy rates. This paper extends that work by developing a theoretical basis for concessions and providing a system of equations in which a concessions equation is specified and rent, occupancy and concessions equations are estimated in a three-stage least squares simultaneous model.

Market adjustment in response to a rental concession can occur in rent and/or occupancy: (1) rents may respond accordingly (nominal rents may increase, decrease or remain constant thereby defining effective rent); (2) occupancy rates may change to reflect either the attraction of new tenants and/or lower turnover ratios. At the same time, the amount of concession offered would be a function of the level of rent and occupancy at the time of offering. The effect on rent and occupancy of the market response to a concession and the decision to offer a concession (which is a function of the level of rent and occupancy) indicate an interrelationship between rent, occupancy and concessions.

A positive relationship would be expected between occupancy rates and concessions because the primary purpose of offering the concession would be to maintain or increase occupancy. Intuitively one would expect that the landlord attempts to pass along to the tenant all or some of the cost of the concession. If the landlord is successful, a positive relationship would be observed between rent and concession. If the landlord is unable to pass any of the cost of the concession to the tenant, the effect would be negative or zero.

Rent, Occupancy and Concessions

At any point in time, the number of units available for rent is provided by the existing stock of apartments. As pointed out by Frew and Jud (1988), the short-run supply of rental property is inelastic with respect to the price (rent) of the existing stock. Inelasticity results from lags in market adjustments caused by long lead times for construction starts, by lengthy constructions periods, and by slow depreciation for existing units. When the existing short-run supply is fixed, demand determines the market clearing price.

Rent and Occupancy

The demand for the stock of rental housing, D, is a function of rent, R, and other factors, F (such as physical characteristics, location, amenities and services, occupancy restrictions, and economic/demographic factors). This relationship can be depicted as:

$$D = d(R, F). \tag{1}$$

Given that the supply of apartment units, S, is fixed in the short run, the relationship between demand and supply is measured by the vacancy level, VL, such that:[5]

$$VL = S - D . \tag{2}$$

Alternatively, the occupancy level, OL, which equals the number of units demanded, can be written as:

$$OL = D = S - VL . \tag{3}$$

Thus, the occupancy rate is shown as:

$$OR = S - VL/S = D/S . \tag{4}$$

Substituting in for demand yields:

$$OR = d(R, F)/S . \tag{5}$$

Since the law of demand requires that dD/dR be negative, it follows that the level of rent is negatively related to occupancy.[6]

The Effect of Rental Concessions

Exhibit 1 shows the demand for the market segment faced by the apartment manager in the short run. Assuming that the apartment complex has some unique characteristics that lead to some market power, the demand curve is downward sloping. The short-run supply curve is fixed. The manager searches for the rent that maximizes profit, which will likely entail some vacancy level. At equilibrium, some vacancy may exist because the landlord cannot perfectly predict demand and because the landlord may not desire transient rent revision, i.e., a lowering of rent sufficient to have full occupancy at all times.

When considering whether to advertise a rental concession, the manager adds a third dimension to the decision problem. The question faced by the manager is: Can a concession be devised that shifts the demand curve far enough to the right so that the present value of the new profit stream (which includes the cost of the rental concession) is greater than the profit stream with no concession?

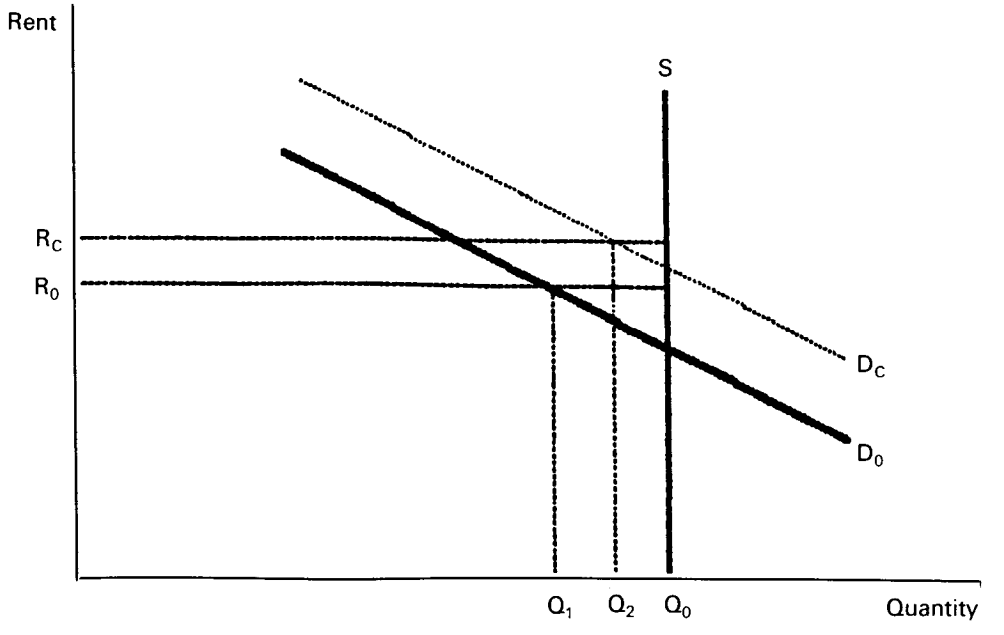
If the answer is affirmative, the rental concession may enable the manager to increase rents and at the same time increase occupancy levels, as shown by the dotted line in Exhibit 1. The key factor is that the cost of the concession must be low enough so that the net present value of the apartment complex is raised. Thus the rental concession adds a third dimension to the decisions made by apartment managers in quantifying the marginal trade-offs made in search of higher profits.

Rental Housing Consumption and Rental Concessions

The increased rental housing consumption caused by concessions can be modeled as.[7]

$$H(c) = R_0 Q(c) - R_0 Q_0 , \tag{6}$$

Exhibit 1
Short-Run Rental Housing Market



D_0 = short-run demand curve without a rental concession
D_C = short-run demand curve with a rental concession
S = short-run supply curve
R_0 = equilibrium rent without a rental concession
R_C = equilibrium rent with a rental concession
Q_1 = occupancy level without a rental concession
Q_2 = occupancy level with a rental concession
Q_0–Q_1 = vacancy level without a rental concession
Q_0–Q_2 = vacancy level with a rental concession

where

$H(c)$ = the change in rental housing consumption as a function of concession size,
(c) = the size of the concession in dollars,
$Q(c)$ = consumption of rental housing services as a function of concession size,
R_0 = pre-concession rent, and
Q_0 = pre-concession consumption of rental housing services.

Given pre-concession rent, $H(c)$ measures the change in rental housing services purchased rather than the change in rent paid.

For rental housing, the market's reaction to the concession is determined by the intersection of the demand and supply curves. The demand curve relates the demand for rental housing services to the price of those services and to the increase in demand caused by the concession:

$$Q(c) = [Q_0 + hc/R_0]\ [R(c)/R_0]^{-} S\,, \tag{7}$$

where

$Q(c)$ = the demand for rental housing services as a function of concession size,
S = the price elasticity of rental housing demand,
h = the increase in demand caused by the concession, and
$R(c)$ = the rent as a function of the concession.

The shift in the demand curve caused by the concession is shown in equation (7) as the increase in rental housing consumption (hc). To convert it into housing quantity devide by the cost of rental services (R_0).

The supply curve relates the supply of rental housing services to the price of those services:

$$Q(c) = Q_0[R(\mathrm{c})/R_0]Y\,, \tag{8}$$

where

Y = the price elasticity of supply.

Solving equations (2) and (3) for the equilibrium price and quantity as a function of the concession yields:

$$R(c) = R_0[1 + hc/R_0Q_0]^{1/Y+S} \tag{9}$$

and

$$Q(c) = Q_0[1 + hc/R_0Q_0]^{Y/Y+S}\,. \tag{10}$$

Substituting these equilibrium results into equation (6) yields:

$$H(c) = R_0Q_0[1 + hc/R_0Q_0]^{Y/Y+S} - R_0Q_0\,. \tag{11}$$

Because the concession will serve only a fraction of the total renter population (those who are first-time renters or those who are mobile), hc/R_0Q_0 is less than one and can be approximated as:

$$[1 + hc/R_0Q_0]^{a} = 1 + a[hc/R_0Q_0]\,. \tag{12}$$

Using this result, then dividing through by concession size (c), gives the total change in rental housing consumption caused by the concession:

$$H(c) = h - [S/Y + S]h\,. \tag{13}$$

Thus, equations (9), (10) and (13) show that concessions have a positive effect on the level of rent, on the occupancy rate, and on rental housing consumption.

At the same time, the extent of concessions offered would be a function of both the level of rent and the occupancy rate.[8] In a highly competitive market where concessions begin to appear and where other factors are held constant, the higher the rent the greater the likelihood of pressure to offer a concession so as to maintain that rent. Thus, a positive relationship would be expected between the level of rent and the amount of concession offered. Likewise, in a market of excess supply, a positive relationship would be expected between the level of occupancy and the size of the concession offered. As a result, rent and occupancy would be expected to have a positive effect on the concession.

Rent, Occupancy and Concession Models

In a model establishing the interrelationship between rent and occupancy and concessions, rent is shown as:

$$Rent = r\,(Physical\ Characteristics,\ Amenities\ and\ Services,\ Location,\ Occupancy\ and\ Concessions). \tag{14}$$

Rent is a function of the concession because the degree to which the concession affects demand will determine the new rent level.

Occupancy is a function of rent, concessions, and other factors such that:

$$Occupancy = o\,(Rent,\ Concessions,\ Other\ Factors). \tag{15}$$

Because the concession acts to increase the occupancy rate, occupancy is a function of the concession.

Further, because the amount of the concession would depend on the initial rent and the corresponding occupancy rate, the rental concession would be a function of both rent and occupancy. This is shown as:

$$Concession = c\,(Rent,\ Occupancy,\ Other\ Factors). \tag{16}$$

Empirical Model and Data

If rent, occupancy rates and concessions are considered to be endogenous when their values are determined simultaneously, a simultaneous estimation system is appropriate.[9] The following model specifies rent:

$$R_i = r(P_{ij},\ A_{ij},\ S_{ij},\ L_i,\ C_i,\ O_i)\,, \tag{17}$$

where

R_i = the observed rent for unit i;
P_{ij} = a set of j physical characteristics for unit i. These include:

- square feet per bedroom (*SQFT/BEDROOM*),
- the number of bathrooms per bedroom (*BATH/BEDROOM*),
- the number of bedrooms (a series of dummy variables to indicate one, two and three bedrooms (*BED*2 and *BED*3, with one bedroom as the omitted variable)),
- age, and
- date of lease;

A_{ij} = a set of j amenities for unit i. These include:

- fitness room,
- patio,
- fireplace,
- washer/dryer connection,
- washer/dryer,
- playground, and
- microwave;

S_{ij} = a set of j services or restrictions for unit i. These include:

- security,
- pets allowed, and
- adults only;

L_i = a set of i binary locational variables based on census tracts. These include:

- census tract 381 (*CEN*381),
- census tract 382 (*CEN*382),
- census tract 391 (*CEN*391), and
- census tract 392 (*CEN*392);

C_i = a variable representing the present value in dollars of the rental concession for unit i;[10] and
O_i = the occupancy rate for unit i as measured by the occupancy rate for the complex.

The following equation for occupancy is specified:[11]

$$O_i = o(R_i, C_i, BATHBED, BED2, BED3, AGE, CEN381, CEN382, CEN392), \quad (18)$$

where the variables are as previously defined.

The concessions equation is specified as:

$$C_i = c(R_i, O_i, SQFTBED, BED2, BED3, ATYP, CEN381, CEN382, CEN391), \quad (19)$$

where the variables are as previously defined, except for *ATYP*, which represents an

Exhibit 2
Summary Statistics for the Baton Rouge Apartment Market

Variable	Mean	Standard Deviation	Minimum Value	Maximum Value
RENT	346.85	73.42	119.00	565.00
OCCUPANCY	.86	.10	.40	1.00
*CONCESSIONS**	384.68	160.30	20.00	848.21
SQFT/BEDROOM	568.85	127.47	320.00	900.00
BATH/BEDROOM	.86	.22	.50	1.50
BED2	.53	.50	.00	1.00
BED3	.13	.34	.00	1.00
AGE	9.32	6.67	.00	22.00
DATE OF LEASE	33.52	11.79	1.00	53.00
FITNESS ROOM	.39	.49	.00	1.00
PATIO	.49	.50	.00	1.00
FIREPLACE	.36	.48	.00	1.00
W/D CONNECTION	.78	.42	.00	1.00
WASHER/DRYER	.11	.31	.00	1.00
PLAYGROUND	.37	.48	.00	1.00
MICROWAVE	.21	.41	.00	1.00
SECURITY	.29	.46	.00	1.00
PETS ALLOWED	.85	.36	.00	1.00
ADULTS ONLY	.15	.36	.00	1.00
NCAPT	.14	.34	.00	1.00
CEN381	.11	.31	.00	1.00
CEN382	.13	.34	.00	1.00
CEN391	.37	.48	.00	1.00
CEN392	.13	.34	.00	1.00

n = 544
*mean for concession observations only (98 observations)

atypical apartment such as one with an unconventional floor plan, extra room, added spare room, etc.[12]

The data represents a survey of apartment complexes in Baton Rouge, Louisiana for 1987.[13] From the more than 300 complexes surveyed, a total of 544 observations resulted.[14] Exhibit 2 provides summary statistics for the data.

Results

The rent, occupancy and concession equations are estimated using the limited-information maximum likelihood estimator (LIML) with semilog equations.[15] Results are given in Exhibit 3.[16,17]

The Rent Equation

The results for the rent equation (given in column 2) show that unit size is a primary determinant of rent: square feet per bedroom (*SQFT/BEDROOM*) has a

Exhibit 3
MLE Regression Results for the Baton Rouge Apartment Market

Variable	Rent Equation	Occupancy Equation	Concessions Equation
INTERCEPT	5.141 (73.49)*	2.177 (3.90)*	−76.237 (−5.09)*
ln *RENT*	— —	−.387 (−4.02)*	15.676 (5.66)*
ln *OCCUPANCY*	−.402 (−1.82)*	— —	42.144 (6.09)*
ln *CONCESSION*	.0144 (5.45)*	.012 (5.43)*	— —
SQFT/BEDROOM	.0008 (10.06)*	— —	−.022 (−4.98)*
BATH/BEDROOM	.040 (1.39)	.071 (1.91)*	— —
BED2	.348 (18.53)*	.102 (3.98)*	−8.561 (−6.40)*
BED3	.604 (21.77)*	.199 (4.51)*	−13.950 (−6.78)*
AGE	−.013 (−6.49)*	−.008 (−2.99)*	— —
DATE OF LEASE	−.003 (−5.65)*	−.002 (−2.87)*	.121 (4.42)*
FITNESS ROOM	.074 (3.87)*	— —	— —
PATIO	−.035 (−2.41)*	— —	— —
FIREPLACE	.068 (4.26)*	— —	— —
W/D CONNECTION	.128 (6.39)*	— —	— —
WASHER/DRYER	.108 (3.92)*	— —	— —
PLAYGROUND	−.034 (−1.26)	— —	— —
MICROWAVE	−.073 (−1.49)	— —	— —
SECURITY	.011 (.40)	— —	— —
PETS ALLOWED	.105 (4.21)*	— —	— —
ADULTS ONLY	.063 (2.37)*	— —	— —
ATYP	— —	— —	1.026 (.75)
CEN381	.178 (6.20)*	.202 (7.80)*	−11.231 (−8.05)*
CEN382	.084 (2.81)*	.066 (3.13)*	−4.630 (−4.38)*
CEN391	−.053 (−2.82)*	— —	−.061 (−.07)
CEN392	— —	−.113 (−5.52)*	— —
R^2	.76	.20	.27
n	544	544	544

t-statistics in parentheses
*denotes significance at .05 level (one-tailed test)

positive effect on rent per unit. Also, rent increases as the number of bedrooms increases, as indicated by the positive coefficients of the bedroom dummy variables *BED*2 and *BED*3. Bathrooms per bedroom (*BATH/BEDROOM*) is not significant. The negative coefficient for the age of the unit, *AGE*, indicates that older units, as expected, may have difficulty competing with newer and possibly more modern counterparts. The negative sign for the date the lease was executed, *DATE OF LEASE*, reveals that, during the time period, rental rates were decreasing. This decrease reflects the petroleum-based recession that impacted the demand for rental housing at that time.

OCCUPANCY is significant with a negative coefficient. This finding confirms that, at least for this market of excess supply, rent is a driving force in occupancy (as shown by the occupancy equation).

CONCESSION, the variable of primary interest, has a positive effect on rent indicating that the greater the concession, the higher the rent. Although one might initially assume that rental concessions benefit the tenant, the results indicate that this benefit does not necessarily occur. Concessions actually result in higher rent on average.[18]

Several amenities show a significant impact on rent. *FITNESS ROOM, FIREPLACE, WASHER/DRYER CONNECTION,* and *WASHER/DRYER* have positive signs. The *PATIO* variable has a negative effect, possibly because it acts as a proxy for a ground floor apartment, a location more prone to break-ins and more noisy when surrounded on both sides and above by apartments. *PLAYGROUND* and *MICROWAVE* are not significant.

Services and restrictions variables have a significant effect on rent. Restrictions such as *ADULTS ONLY* and *PETS ALLOWED* are positive. The positive sign for *ADULTS ONLY* indicates that tenants are willing to pay more for an adults-only community, which may be preferred by young singles and older retired persons.[19] The positive sign for *PETS ALLOWED* indicates that renters are willing to pay a premium in order to keep pets on the premises. The *SECURITY* variable is not significant.

Rent is also affected by location. Three location variables have a significant effect on rent.

The Occupancy Equation

The results for the occupancy equation are shown in column three of Exhibit 3. The negative effect of rent on occupancy is consistent with expectations for lower rent in a competitive market of excess supply. Because rent would be a driving force behind occupancy, lower rent would result in higher occupancy levels.

CONCESSION has a positive effect on occupancy rates. Thus, as the model hypothesizes, the offering of rental concessions results in both higher rent and increased occupancy levels.

Variables such as *BATH/BEDROOM* and number of bedrooms (*BED*2 and *BED*3) have a positive effect on occupancy whereas *AGE* and *DATE OF LEASE* have a negative effect. Three location variables have a significant effect on occupancy.

The Concessions Equation

The results for the concession equation are given in column four of Exhibit 3. Both rent and occupancy have significant positive effects on concessions. These results would seem to indicate that landlords with higher rent and occupancy levels are under pressure to offer concessions in order to compete more aggressively in a market of excess supply.

The variables representing physical characteristics show that landlords of larger units are under less pressure to offer concessions. The negative coefficients for *SQFT/BEDROOM*, *BED*2 and *BED*3 indicate that the concession decreases as the unit size increases.

The *ATYP* variable, which represents an apartment with a non-conventional layout or some other atypical feature, does not have a significant effect on concessions. Significant results for two of the location variables indicate that some areas of the city offer greater concessions than others.

Summary and Conclusions

This paper has examined the interrelationship among rental concessions, rent and occupancy rates. A limited-information maximum likelihood estimation procedure was used to estimate equations for rent, occupancy and concessions. The results show a negative relationship between rent and occupancy rates. The results also show that certain amenities, services and occupancy restrictions influence rent. Physical characteristics such as square feet per bedroom, number of bedrooms and age are determinants of rent.

Likewise, some physical characteristics have a significant impact on occupancy rates. The concession variable has a positive effect on both rent and occupancy rates. In order to compete, landlords with higher average rents and occupancy levels are under pressure to offer concessions; the degree to which concessions are required, however, declines as apartment size increases. Thus, rental concessions seem to provide the landlord with a means of collecting higher average rent and, in the process, increasing occupancy rates.

Notes

[1]Turnover costs include new tenant search costs such as advertising expenses, cleaning and remodeling charges, leasing fees, and lost revenues due to the apartment unit being unoccupied. Based on a study of renters in 36,000 apartment units, Kelley (1990) estimates the average cost of an apartment tenant turnover to be $1,415: $683 of lost rent for forty-four days of vacancy and $732 for cleaning, repairs and remodeling, advertising, and utility charges on the unoccupied unit.

[2]The real estate advertisement sections of newspapers in Dallas, Houston and New Orleans during the period 1983–1989 readily attest to the popularity and variety of apartment rental concessions. More recently, 1989 to date, the *Washington Post* and *Boston Herald* and other large city newspaper real estate sections display apartment advertisements with various rental concessions.

[3]The Urban Land Institute (1990) observes that lengthening tenants' length-of-stay increases rental revenues while reducing vacancy rates and turnover costs.

[4]Examples abound of other concessions. Oser (1992) notes that high occupancy was reached quickly in a New York apartment by making rent concessions. Deutsch (1992) writes of landlords using concessions to maintain occupancy in retail space in New York. Epes (1992) observes that landlords have offered concessions to boost or stabilize occupancy rates in the Puget Sound area. Finn (1991) expects rents to remain stable while concessions are used to increase occupancy in Washington, D.C. Phillips (1991) writes of criticism that the Reichmans have had to offer tenants substantial concessions to lease over half of Canary Wharf in London's grossly oversupplied office market.

[5]Complicating the relationship between rent and occupancy is the fact that the various amenities and services provided to tenants affect both rent and occupancy and these amenities and services vary significantly across apartments. Sirmans, Sirmans and Benjamin (1990) show that amenities and service such as covered parking, pool, utilities paid, etc. and external factors such as traffic congestion and access to public transportation are important determinants of rent. Guntermann and Norrbin (1987) show that rent is a function of size, condition, location, number of bedrooms, and amenities such as pools and tennis courts. Other studies that measure various aspects of rent determinants are Marks (1984), Jaffe and Bussa (1975), and Smith and Kroll (1988).

[6]Frew and Jud (1988) show a similar development for office buildings.

[7]This development follows closely the models developed by Rydell and Mulford (1982) which show the effect of housing allowances and unrestricted cash grants on the consumption of housing services.

[8]The offering of the concession is essentially a capital budgeting decision. The concession is offered so that the landlord can maintain or increase rent and/or occupancy. Do the cash flows from the otherwise lost rent and/or occupancy more than compensate for the cost of the concession? Whether or not the trade-off is worthwhile depends on the discounted value of the cash flows. The authors thank a referee for pointing this out.

[9]The issue of simultaneity between rent and vacancy has been addressed in the literature (see Frew and Jud, 1988). This paper extends this analysis to include rental concessions.

Because the data contain a large number of variables that may potentially have some effect on rent and may also be collinear, the rent equation is first estimated using a backward stepwise OLS regression to determine those variables that have a significant effect on rent. For a discussion of the appropriateness of this technique, see Leamer (1978). The resulting model is estimated in a three-stage least squares system with the occupancy and concessions equations.

[10]The concessions observed are: (1) one month free rent with a one-year lease, (2) one month free rent with a six-month lease, (3) payment of moving expenses, (4) one month free rent after one year, (5) two months free rent after one year, and (6) $99 rent for first month. Because some concessions have future benefits, all concessions are discounted to present value terms for comparison using a discount rate of 12%.

[11]This specification follows Frew and Jud (1988) who show that vacancy is a function of rent, age and building size.

[12]Frew, Jud and Winkler (1990) examine the relationship between rental concessions and atypicality of apartments. Their estimates of a conditional logit model conform to expectations that the use of rental concessions is positively related to the atypicality of the unit.

[13]During spring 1987, the authors surveyed the entire population of Baton Rouge, Louisiana apartment complexes with unit quantity greater than thirty. Further, the authors have no reason to believe that the competitive market conditions observed in this medium-size market (population 350,000) differ from other markets.

[14]An apartment complex may have one or more observations depending on the number of apartment unit types within the complex.

[15]In recent years, the question of the correct functional form for hedonic models has arisen in the literature (see Rosen, 1974; Butler, 1982; Halvorsen and Pollakowski, 1981; Marks, 1984). Butler contends that when researchers have compared alternative functional forms for hedonic indexes of housing, by and large they have found little basis for choosing one over the other. For this paper, the semilog form performed best although the alternative forms provided consistent estimates.

[16]The model was also estimated using three-stage least squares (3SLS). The 3SLS results were similar to the LIML results; thus they are not reported.

[17]In individual regressions, no multicollinearity is indicated as being present as determined by SAS variation inflation, eigen value and condition index indicators, which follows procedures outlined by Belsley, Kuh and Welch (1980). Autocorrelation and heteroscedasticity are not found to be strongly present by standard tests and residual plots. The error term appears to be normally distributed.

[18]It should be noted, however, that the tenant benefits if the present value of the increased rent is less than the present value of the concession to the tenant.

Kelley (1990) indicates that the average length-of-stay for apartment dwellers is approximately eighteen months. Given an average concession of $385 and an average rent of $347 in our sample and a coefficient estimate of .0225 for concession in our rent equation and employing a discount rate of 12%, we estimate that through higher rents landlords regain 37% of the average concession. In addition, occupancy rates rise so as to further offset the cost of the concession.

[19]The reader may note that the U.S. Supreme Court has ruled the adults-only restriction to be unlawful.

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