

# Pet Policies and Rental Prices

## How Do Pet Restrictions Affect Rental Prices?

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### Introduction and Research Question

This research attempts to find the relationship between pet restrictions and rental values for the San Diego area. Approximately million households (including rentals) owned at least one domestic pet as of 2007, a 3 percent increase from 2005 (Lin et al, 2011), which shows an ongoing growth within the pet industry. Furthermore, pet expenditures in the U.S. exceeded \$41 million dollars, and over 3.2 million shelter animals were adopted in 2007 (APAA, 2008).

With the growth of the pet industry, the goal of this research is to identify the relationship between pet restrictions and rental values in order to shape the views of the decision makers who establish rental values (property owners/managers, developers, and policy makers). The expectation is there will be a premium for rentals without any pet restrictions compared to a discount for rentals with restrictions due to potential renters with pets being less sensitive to higher prices

### Literature Review

- Sirmans, Sirmans, and Benjamin (1986): The authors evaluate the effects of overall amenities as they relate to rental values. Pets were considered amenities and the authors found a small premium on rental values without restrictions.
- Lin, Allen, and Carter (2011): These authors evaluate pet restrictions and condominium values in the Fort Lauderdale, Florida area. The results showed that condominiums without a pet restriction sold at an 11 percent premium compared to condominiums with a “no pets” policy.
- Powers (2016): This research uses survey data to convey how pet ownership can bring about insecurity for renters. The author focuses on how the reward of pet ownership can create a sense of doubt in renters due to the liability associated with pets in rental properties. This research assists in how pet owners make choices regarding pet ownership and rental properties.

### Empirical Framework

The empirical analysis consists of a hedonic pricing model, examining the impact of characteristics on rental prices. The data consists of rental transactions to include apartments, condominiums, multi-family homes, townhomes throughout San Diego County for the months of December 2018 through February 2019. The regression is an Ordinary Least Squares (OLS) process.

The dependent variable in my equation is rental prices. The key independent variable is the pets, which identifies if there is/is not a pet restriction and the type (pets allowed, cats only, dogs only). The pets variable will show the extent of pet restrictions on rental values.

The Regression estimation used:

$$Rent(\ln)_i = \beta_0 + \beta_1 \text{pets}_i + \beta_2 \text{bed}_i + \beta_3 \text{bath}_i + \beta_4 \text{sqft}_i + \beta_5 \text{amen}_i + \varepsilon_i$$

### Initial Regression Results

VARIABLES	ln_rent	ln_rent	ln_rent
<b>bed</b>	<b>-0.034</b>	<b>-0.033</b>	<b>-0.032</b>
	<b>[0.023]</b>	<b>[0.023]</b>	<b>[0.023]</b>
<b>bath</b>	<b>0.131***</b>	<b>0.129***</b>	<b>0.128***</b>
	<b>[0.028]</b>	<b>[0.029]</b>	<b>[0.029]</b>
<b>sqft</b>	<b>0.001***</b>	<b>0.001***</b>	<b>0.001***</b>
	<b>[0.000]</b>	<b>[0.000]</b>	<b>[0.000]</b>
<b>income_zip</b>	<b>0.000***</b>	<b>0.000***</b>	<b>0.000***</b>
	<b>[0.000]</b>	<b>[0.000]</b>	<b>[0.000]</b>
<b>laundry_dummy</b>	<b>0.057**</b>	<b>0.061**</b>	<b>0.060**</b>
	<b>[0.025]</b>	<b>[0.025]</b>	<b>[0.025]</b>
<b>heating_dummy</b>	<b>-0.004</b>	<b>-0.001</b>	<b>-0.002</b>
	<b>[0.022]</b>	<b>[0.022]</b>	<b>[0.022]</b>
<b>parking_dummy</b>	<b>0.030</b>	<b>0.033</b>	<b>0.034</b>
	<b>[0.025]</b>	<b>[0.025]</b>	<b>[0.025]</b>
<b>pets_allowed</b>	<b>0.035*</b>		
	<b>[0.019]</b>		
<b>dogonly_dummy</b>		<b>0.023</b>	
		<b>[0.048]</b>	
<b>catonly_dummy</b>			<b>-0.052**</b>
			<b>[0.026]</b>
<b>Constant</b>	<b>6.839***</b>	<b>6.851***</b>	<b>6.855***</b>
	<b>[0.036]</b>	<b>[0.035]</b>	<b>[0.036]</b>
<b>Observations</b>	<b>346</b>	<b>346</b>	<b>346</b>
<b>R-squared</b>	<b>0.640</b>	<b>0.637</b>	<b>0.637</b>
<b>Root MSE</b>	<b>0.186</b>	<b>0.187</b>	<b>0.187</b>
<b>Robust standard errors in brackets</b>			
<b>*** p&lt;0.01, ** p&lt;0.05, * p&lt;0.1</b>			

### Variables

Variable	Definition
Rent (ln)	Rental price in U.S. dollars
pets	Dummy variables created to indicate if there is a pet restriction or not. Also the dummy variables are broken up into a cats only restriction, and dogs only restriction.
beds	Number of bedrooms
bath	Number of bathrooms
sqft	The square footage of the property
Income_zip	Median income (USD) for the particular zip code the property is located.
laundry	A dummy variable which equals “1” if the property has laundry and a “0” if otherwise.
heating	A dummy variable which equals “1” if the property has heating and a “0” if otherwise.
parking	A dummy variable which equals “1” if the property has parking and a “0” if otherwise.



### Results and Further Research

The initial regression results show a small premium in rental prices for a pets allowed policy and a small discount for a cats only policy. The results do not support the initial hypothesis to the satisfaction of the researcher. The results can still be used in making decisions on establishing rental prices, but the data is not currently economically or statistically significant to expectation.

This data will be expanded beyond the current 3 month transaction cycle for future analysis to test the relationship between pet policies and rental prices. Further research can be introduced in other markets and on housing sales price to see the affect of pet restrictions.