DEVELOPMENT OF HEDONIC PRICES INDICES FOR FREEHOLD PROPERTIES IN THE GREATER TORONTO AREA:

APPLICATION OF SPATIAL AUTOREGRESSIVE TECHNIQUES

BY

MURTAZA HAIDER

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ABSTRACT

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MURTAZA HAIDER

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Spatial autoregressive (SAR) models were estimated for freehold properties sold between 1987 and 1995 in the Greater Toronto Area. A large data set consisting of 325,000 sales records was used in the study. Results showed that SAR models offered better fit than non-spatial models. Moran's coefficient and directional variograms were applied to estimate the effects of spatial autocorrelation. Using GIS, certain key relationships were identified in a detailed spatio-temporal analysis of housing and census data. "Comparable sales" approach was used to calculate the spatial lag variable for every record. SAR models explained 80% variance in housing values, using a combination of structural attributes, neighbourhood characteristics, and spatial lag terms as explanatory variables. The number of washrooms, parking capacity and the average household income, among others, were found to be significant determinants of housing values. Economic and locational variables returned insignificant coefficients and were excluded from the final model specification.

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CHAPTER 1

INTRODUCTION

Putting the right price on a residential property can be very difficult and deceptive. "The market value" of a property determines the current worth of the housing stock (all housing units in the study area). In addition, the market value of a property determines property tax owed by the property owners. Taxation issue adds controversy to housing price determination. Last year, province of Ontario, to update property tax roll, re-evaluated values of residential and commercial properties. Thousands of property-owners filed complaints after they were subjected to higher property taxes. Property owners opined that their properties were assessed for unusually high values. To make matters worse, in many instances, identical housing units on the same street were assessed for quite different values.

Housing literature offers several statistical techniques to determine the price of large heterogeneous goods, such as housing. In the housing literature, one such technique is referred to as Hedonic Price Index, where the price of a house is estimated by looking at the structural attributes of individual housing units and their neighbourhood characteristics. If assessment is based on a Hedonic Price Index, two structurally identical houses in the same neighbourhood will be assessed for the same value. This eliminates errors induced by the ad hoc assessment of housing values. This study applies Hedonic Price Index to estimate housing values.

Housing markets in Canada have gone through significant policy changes in the past few years (Wolfe, 1998). These changes include devolution of responsibilities for social housing by the federal government to provincial governments, who in turn have passed these responsibilities on to regional or municipal agencies; the decision to relax rent control laws by the province of Ontario; and the reassessment of property values in Ontario. These policy changes have a direct bearing on housing values for both owner-occupied and rental housing. Inter-governmental housing policy changes coupled with changes in the demand and supply for housing have a profound influence on housing values.

Recent changes in housing policy, especially in Ontario, have directly affected housing values and the demand for new housing. One example of policy change is the decision by the Government of Ontario to relax rent-control laws. Rental households, expecting a large increase in rents, will review their tenure choice decisions since higher rents will limit their mobility choices. Thus, the demand for owner-occupied housing is expected to rise as well as the supply of new rental housing units (since developers anticipate higher return in rental income) once the new rent-control laws come into effect. Another change in housing policy pertains exclusively to the City of Toronto, which announced proposed relaxation of restrictions on condominium conversions. The latter policy will act against the former policy, since condominium conversions would result in the removal of rental housing from the housing market.

Households review their tenure choice decisions in the light of such housing policy changes. A change in real disposable income or a change in household size, among other factors, could also influence a household's mobility and tenure choice decision. The fact remains that housing values along with income and demand variables play a fundamental role in tenure choice/mobility decisions.

Most studies of housing price appreciation apply spatially aggregate techniques and tend to overlook the spatial variation in housing prices. Recently, housing research has revealed variation in housing price appreciation within metropolitan areas (Archer et al., 1996). Housing price appreciation not only varies by type, size, and location (Case and Mayer, 1996), but also with spatial variation in demographics (Griffith, et al. 1996).

The need to study spatio-temporal variation in housing values in metropolitan areas is evident from the fact that 83% of all Canadians live in urban areas, while the majority of the housing units in Canada (62%) are owner-occupied housing (Wolfe, 1998). In addition, 31% of all Canadians live in three large metropolitan areas: Vancouver, Montreal, and Toronto.

According to 1996 quinquennial census, share of owner-occupied housing in Toronto is around 58%, which is less than the national average. In English-speaking Canada, Toronto falls behind all other major metropolitan areas in its share of owner-occupied housing. In addition, Toronto also has one of the highest percentages of owner households (14%) paying 30% or more of household income in shelter costs. It comes second only after Barrie, where (15.6%) of the owner households pay 30% or more in shelter costs.[1]

The effects of land use on transportation have been under study at the Department of Civil Engineering (Transportation Group) since late seventies [(Saccomanno, 1979; Miller, et al. 1987; Miller and Salvini, 1997)]. An earlier study in 1979 estimated hedonic price indices for residential real estate in Toronto (Saccomanno, 1979). A recently completed master's thesis at the Civil Engineering department explored the spatial search patterns of mover households in the GTA (Pushkar, 1998). Pushkar's research focused on why households move and how they conduct their spatial search for a new dwelling.

During the past few years, research at the Department of Civil Engineering involved modelling of land use and location choices, and their effects on travel demand. The current research involves development of transportation models (ILUTE -- Integrated Land Use, Transportation, Environment Modelling), which, "integrated with models of land use and location choice, forecast traffic flows and travel times, along with energy use and emissions, as a function, among other things, of land use and housing policies." Housing research conducted by the ILUTE team members includes research on residential mobility (Hollingworth and Miller, 1996; Miller, et al. 1987); industrial

[1] Calculations performed by author on 1996 Census Tract files.

location choices (Miller and Lerman, 1981b); urban form (Anderson, et al. 1996); and environment, energy, and transportation planning [(Anderson, et al. 1994; Miller and Cubukgil, 1981a; Miller and Salvini, 1997)].

This study is part of the ILUTE project. ILUTE has an explicit focus on land use and residential mobility. This study focuses on the determinants of housing values, such as variables explaining the socio-economic makeup of the neighbourhood and structural attributes of housing. A household's decision to relocate is influenced, among other things, by the price of the property and household's ability to invest. This study attempts to explain how households value certain structural attributes of a housing unit and the neighbourhood characteristics when they bid for a particular housing. The GTA by far is the largest residential real estate market in Canada. The huge size of the study area offers us an equally huge sample size, which is highly desirable in empirical modelling.

The objectives of the study are as follows:

- To develop databases for housing sales and Census data.
- To create spatial databases for spatial analyses of housing and Census data.
- To perform detailed spatio-temporal analysis of housing/census data.
- To develop spatial Auto-regressive Hedonic Price Indices for freehold properties, sold between 1987-1995 in the GTA.

This reports starts with the introduction of the topic in Chapter 1 followed by literature review of the state-of-the-art in house price indices in Chapter 2. Variables definitions and methodology is discussed in Chapter 3. This is followed by a detailed descriptive spatio-temporal analysis of freehold sales and census variables in Chapter 4. Estimation of spatial autocorrelation and development of Hedonic Price Indices is documented in Chapter 5. Conclusions and recommendations are briefly presented in Chapter 6. Appendices A to N carry detailed tabular data / maps, which have been referred in the main text.

CHAPTER 2

LITERATURE REVIEW

> *The accurate measurement of real-estate price change is important to our understanding of aggregate wealth and investment behaviour, and the efficiency of housing market. The understanding of regional business cycles depends on a correct measurement of local house price changes. (Meese and Wallace, 1997)*

The development of housing price indices has come a long way. The initial indices were based on temporal analyses of housing prices. More recent experiences in Hedonic and Repeat Sales Price Indices include spatio-temporal analysis. There have been several spin-offs of basic index development techniques. The state of the art in Hedonic Price Index estimation accommodates the spatial effects on the distribution of prices within a metropolitan area. Auto-regressive models, using spatially lagged explanatory variables, duly acknowledge the role played by spatial externalities in determining the prices of housing units.

It is a common practice to model housing prices as some function of structural attributes of the housing unit and some neighbourhood characteristics. The spatial formulation of Hedonic models goes a step further by incorporating spatial correlation between the values of independent variables. Housing literature suggests inter-metropolitan variation in house prices. It has been argued that "neighbourhood attributes and characteristics of the dwelling unit play a very important role along with the average earnings of the residents of the neighbourhood," (Capozza and Seguin, 1996). However, the role played by average household income in Hedonic models is rather ambiguous. Researchers fail to agree on the statistical significance of income variables in multivariate statistical analyses.

HOUSING PRICE INDICES

> Housing Price Indices are a major input in the investigation of housing and mortgage markets for both research and business reasons. They constitute a critical input for the measurement of housing demand; comparative analysis of price trends locally, regionally and nationally; the evaluation of residential real estate investment decisions; assessment of new mortgage products as well as risk/default assessment of existing ones; and formulation and design of housing/mortgage policies, programs and products. Therefore, accurate price indices are highly sought after for their utility in research and business applications.
>
> (Can and Megbolugbe, 1997)

BASIC TYPES OF INDICES:

During the past few years, development of Hedonic price indices has attracted the attention of researchers in diverse fields, such as economics, finance, geography, and engineering. One of the reasons behind the rapid progress in estimating indices is the availability of computerised databases that offer coherent information about individual dwellings. However, development of price indices is not free from problems. Huge data sets are required to accommodate the heterogeneity, which exists among individual properties. Hence, data should be aggregated over a large number of physical and locational attributes. Data on the physical attributes of the properties are available from a wide range of sources. However, coherence remains to be the problem with such data sets. Therefore, development of indices is often custom-designed to meet the data limitations.

There are three basic types of Housing Price Indices.

1) Hedonic Price Index
2) Repeat Sales Price Index
3) Hybrid Price Index

These indices are further divided into two sub-categories:

1) Simple (restrained)
2) Complex (unrestrained)

The Hedonic Price models typically involve estimation of some regression relationship between the sale price or monthly rent of the individual properties, Y_i, their physical and local characteristics, S_i, and some specification of time, t. In most cases, time is either the actual sales date or the time of sale determined from a benchmark. A Hedonic Price Index thus requires huge databases, which maintain information on the structural attributes of individual properties. Often a comparative analysis of price indices among different regions is not possible. This problem owes much to the fact that databases maintained by independent institutions do not contain coherent information on individual properties. To overcome this limitation Repeat-Sales Price Indices are often employed.

A Repeat-Sales Price Index is estimated on all pairs of consecutive transactions of individual properties transacting more than once during the study period. Like Hedonic Price Indices, the Repeat-Sales method involves an explicit time period to analyse property sales. The Repeat-Sales Price Index considers sale of the same physical unit at two different points in time. The database for repeat-sales does not carry excessive data on the dwelling and neighbourhood characteristics. Thus, Repeat-Sales Price Indices are favoured in instances where detailed data on property attributes are not available.

As the name suggests, the Hybrid Price Index is a combination of Repeat-Sales and Hedonic Price Indices. The index normally involves two equations estimated jointly with "cross-equation quality constraints on the common parameters." Normally, the first equation is estimated on all transactions of residential properties that transacted just once during the study period. The second equation is estimated on all pairs of consecutive transactions of properties transacting more than once during the study period.

Simple models impose the restriction that all property attributes must vary together over time. Since this is hardly the case in reality, simple price indices return a larger standard deviation of the disturbance term (error term). Simple price indices do not fit data as well as their counterparts, the complex models.

Complex Price Indices allow the price of each property attribute to vary independently over time. Complex Price Indices often give smaller values for standard deviation of the disturbance term and fit the data better.

COMPARISON OF PRICE INDICES

In this sections four studies comparing price indices are presented. The first study presents a new price index, based on the Repeat-Sales model by (Case and Schiller, 1987). Authors of the study referred to the index as Conventional Mortgage Home Price Index (CMHPI), or commonly known as the Agency Index (Stephens, et al. 1995). Fannie Mae and Freddie Mac publish the Agency Index quarterly in the United States[1]. The index is based on repeat-mortgage (repeat sales) transactions of single-family dwellings in a national database of loans purchased or securitized by the two agencies between 1975 and 1992. The index assumes a "constant quality" for the properties, which implies that the property values do not change over time. Hence, the index is oblivious to the depreciation of the properties or any renovations made in between the two sales. This assumption is unreasonable since housing values change over time due to age.

The Fannie Mae and Freddie Mac database contained 17.5 million loans securitized by the two agencies during 1975 and 1992. Out of 17.5 million loans, 1.57 million repeat

[1] Largest American lending agencies dealing exclusively in residential real estate investment.

transaction pairs were identified nationally. Only 244,560 loans were those that did not undergo refinancing. Stephens (1995). compared the weighted Repeat-Sales Price Indices for nine US Census divisions. The authors preferred arithmetic mean estimators over geometric mean estimators for calculating change in house prices of a portfolio of real-estate properties. The Agency Index or CMHPI was statistically more robust when compared with other indices, such as, NAR Median Existing Price Index[2] and Census Constant Quality Index. Agency Index was found to be a cost-effective way to achieve "wide coverage and geographic disaggregation in the measurement of houses price changes."

BIASES IN REPEAT-SALES PRICE INDICES

The strongest criticism of these type of repeat-sales methods arise from the assumption that the physical structure of the dwelling units maintain a constant quality over time and hence the name "Constant Quality." This bias is called "Renovation Bias". Proper maintenance of the property and major replacement of the goods associated with the dwelling can counter the effects of ageing. Also, additions and deletions to the property influence the value of the unit; however, the regression equation does not map these variables. The Hedonic Price Index accounts for ageing, additions, and deletions to the property, since these variables are a part of the regression equation. Meanwhile, Census Bureau series C-50 in the US reported that renovations add only 0.5 % to the value of all properties. Hence, for the US data 50 basis points can be subtracted from annual growth rates in all years.

The lending agency also develops patterns in its lending behaviour, which has an effect on the types of properties it acquires over time. Stephens et al. referred to this as "Transaction Bias". Loan restrictions and historical purchase patterns lead to such a bias. (Myers and Pitkin, 1995) refer to a similar behaviour, which they refer to as "Selection Bias." They were of the view that the properties that transact more than once during the study period "constitute a large separate segment of the market with lower average rates of price appreciation."

[2] National Association of Realtors (NAR). They maintain an index of median sale prices of existing Single Family

"Refinancing Bias" is another concern for the Repeat-Sales method. Out of 1.6 million repeat sales in the Agency Index, only 244,560 sales were purchases, while the rest were the same properties that underwent refinancing. Refinanced properties may or may not be true representatives of the housing stock. Exclusion of refinanced properties results in reduced sample size and loss in index accuracy gains from regional disaggregation.

Another interesting study compared the simple and complex versions of Hedonic, Hybrid and Repeat-Sales Price Indices (Case and Szymanoski, 1995). The authors concluded that Complex Hybrid Model (Price Index) provided the most precise index. However, the Repeat-Sales Price Index returned the smallest standard deviation of the disturbance term and the narrowest confidence intervals. Following data were used for the Price Indices.

County	Total Sales	Repeat Sales	Percentage of Total
San Francisco County	49266	18562	38%
Contra Costa County	67946	12804	19%
Cuyahoga County	142663	18002	13%
Dada County	71339	26553	37%
Fairfax County	62451	10909	17%

For the Hedonic Price Index the following variables were included in the regression equation:

1) Land area in square feet
2) Living Area
3) Age of Structure in Years
4) Number of full and half bathrooms
5) No of other rooms
6) Quarterly dummy variable for Price Index

Dwellings (SFD) reported in 119 US metros.

Three statistics were applied to judge the best price index. They chose standard deviation of the disturbance term, 95 % confidence interval around the projected mean and squared correlation between the actual and predicted values of all properties in the data set. The authors pointed out that standard deviation of the disturbance term is a direct measure of the cross-sectional variation in house-price appreciation, which is commonly known as Root Mean Square Error (RMSE)[3]. In addition, the random noise component of the disturbance term for any property is positively related to the length of the time elapsed between transactions of that particular property. Hence, the standard deviation for the Repeat-Sales model is lower than that of the Hedonic model, since the time elapsed between the two sales of the same property is smaller than the time elapsed for a property sold only once during the study period.

Results indicated that the Hybrid Models, both simple and complex, yielded smaller estimates of the standard deviation of the disturbance term than the Hedonic (simple and complex) and Repeat-Sales models (simple and complex). However, the Repeat-Sales Price Index exhibited a downward bias estimate of the standard deviation for all properties while the Hybrid model yielded a narrower confidence interval around the predicted price than the Hedonic price model. Similarly, Complex models generated slightly narrower confidence intervals than the simple models. When the correlation between the actual and predicted transaction price values was observed, the Hybrid model was found to generate more accurate predictions of market prices than the Hedonic and Repeat-Sales models.

Almost all the models discussed above are parametric models. The Non-parametric Hedonic Price Index offers variation in model specification. A parametric Hedonic model is subjected to the linear-relationship constraint. In order to avoid the linearity assumption the General Additive Model (GAM) was applied, which relaxes the

[3] Cross-sectional variation in house-price appreciation is the difference between the overall rate of price appreciation in a given housing market and the individual rate of price increase for a particular house.

functional form (Mason and Quigley, 1996). GAM was compared to NAR and US Bureau of Census Index[4].

The Non-parametric estimation of the Standard model is expressed as follows,

$$LogV_t = a + \sum_{i=1}^{5} b_i x_i + ct \qquad \ldots 2.1$$

V_t = Rent or Sale price of dwelling at time t

x_i = Housing characteristics measured for observation i

t= Number of days since 01/80

The authors used a small data set, which comprised 843 condominium sales recorded during the 12-year period from 01/80 to 12/91. The condominiums were considered comparable since the properties were located in three high-rise buildings situated within a quarter mile radius. Neighbourhood characteristics and public service amenities for all condominiums were assumed to be the same. The model had the following control variables:

1) Size (sq. feet)
2) Location (storey)
3) dummy variables for each of the three buildings

Three formulations were used for the model with variations in the units for time. The first formulation measured time in days; the second formulation measured time in years; and the third measured time in quarters. The authors observed that the models were comparable and results were similar.

Price Indices can be evaluated through various techniques. One such method used demographics to evaluate various indices (Myers & Pitkin, 1995). Authors were of the view that cohorts passing through late middle age would be expected to have constant

---

[4] Index of new, single family house prices for each of the four largest Census regions in the US. The Index only considers houses completed and sold in particular year. In addition, it neglects 1/3rd of the new houses, and sales of the existing stock.

real average house prices over a 10-year interval. They did not observe any evidence of middle-aged cohorts trading-up to higher quality housing between 1980-90. However, it was found that conventional price indices, even after deflation, reported a false increase in consumption during the 1980s. Myers and Pitkin reported that 50- and 60-years old did not move to better or newer homes during the 1980s any more than in the 1970s.

Demographic research indicates that the role of cohort inertia is distinct for age cohorts. "Once established in housing careers, cohorts have followed life-cycle progressions that parallel those by of proceeding cohorts." Data for this research were collected from 1-in-1000 PUMS for the census of 1960, 70, 80, and 89's American Housing Survey (AHS) and from 1-in-100 PUMS for 1980 and 1990s census.[5]

The authors defined mobility as relocation to a different dwelling within the last 10 years. They found that 49.8% of all owner-occupants have moved into their homes within the last 10 years. Only 37.6% of all owner-occupants relocated into the existing stock. These figures reflect the role played by housing starts as 12.2 % of the movers relocated in new housing.

SPATIO-TEMPORAL ANALYSES OF HOUSING VALUES WITH HP INDICES

The influence of housing starts on the value of existing housing stock could be assessed with a Hedonic Price Index. Often development of Hedonic Price Indices is hampered by scarcity of data sets. With the exception of a few research initiatives, often these models were estimated on ridiculously small samples. A recent study took advantage of a large database and hence estimated models using sales data of over 530,000 residential properties in Sweden (Englund, et al. 1998).

The database comprised sale of all properties between 1981-I and 1993-III. Using the Generalised Least Squares method, the log of observed sale price was regressed over a huge set of structural attributes (72 variables). Influence of neighbourhood characteristics and spatial dependency in the observed variable was ignored in the research. However, in order to divide the Swedish market into sub-markets and

[5] Public Use Micro-Data Sample (PUMS).

perhaps to make regression calculations manageable, the study area was divided into eight regions.

The estimated models suffered from multicollinearity. Unnecessary variables were added to the models (31 variables in the reported model) which returned counterintuitive results. For example, variables such as one car garage was simultaneously added with another variable two-car garage. The former variable returned a negative coefficient, and the later returned a positive coefficient. Interpretation of this model becomes difficult, as it implies that all else being equal, presence of one-car garage would cause a decline in the value of a property. In the absence of two-car gargage, one-car garage would definitely return a positive coefficient, since it indicates that properties with parking facilities worth more than those that do not have a parking facility. Similar results were reported for variables parcel size (+ve coefficient) and square of parcel size (-ve coefficient). Some of the variables returned insignificant t-statatistics.

Another study of 12,000 residential sales (single family dwellings and duplexes) between 1987 and 1992 in Cleveland, Ohio, revealed that the construction of new housing in the same neighbourhood adds to the value of existing stock (Simons, et al. 1998). The dependent variable in the study was Box-Cox transformed nominal selling price. Explanatory variables included:

1) Square footage of the property
2) Condition, year of construction
3) Number of washrooms
4) Fireplace (binary: 1,0)
5) Garage
6) Style
7) Lot Frontage
8) An index of locational attributes: distance from Central Business District (CBD), poverty, etc
9) No of new constructions

10) Extended tax delinquency

11) Seasonal binary variables

Spatial dependency was ignored in model specification. It was found that the transformed version of the model returned a better fit than the non-transformed version. Housing starts in the immediate vicinity of the property increased its value by $670 per new construction. They also discovered that for every additional percentage of property tax delinquency, sale price went down by $788.

Some of the results from this study offered non-traditional results. For example, distance from CBD for Cleveland returned a positive coefficient. This implies that the property values in creased per unit increase in distance from CBD, all else being equal. More often than not, this variable returns a negative coefficient, owing to the monocentric nature of North American metropolis. Authors argued that the positive coefficient perhaps is owed to the multiple employment nodes in Ohio. Given the edge city effects and the poor state of many US downtowns, this probably is not a surprisingly result, especially for housing.

Distance from CBD affects land and house prices. The relationship between the distance from CBD differs depending upon the geography and economy of a city. In a study of house and land prices in Sydney, Australia, it was found that house and land prices fell dramatically with distance from the CBD (Abelson, 1997). Between the mid 70's and 1989, price gradients were steeper probably due to decrease in travel times and costs by road and rail in Sydney.

Car ownership and the supply of urban services also affected price gradients in the early period and later gentrification of the inner-city areas, and increase in housing supply at the urban fringe in the later period, also contributed to the steeper price gradients.

The analysis was conducted in two stages: a) between 1931 to 1968, and b) between 1970 and 1989. For the two periods, a negative exponential relationship between property values and distance to the CBD was discovered. Abelson argued that households in choosing a residential location balance the housing costs against the commuting costs. In equilibrium, a household must compensate for an increase in transport costs with the increase in distance from the CBD by a fall in housing costs. The marginal cost of commuting falls with the increase in distance from CBD but at a faster rate than the fall in housing prices. If the housing prices fall, households will buy more of housing and hence the total housing expenditure might stay the same.

The assumption that cities are monocentric does not hold for the modern cities any more. With the increase in suburban office and retail centres, modern cities have become polycentric. In a study of travel behaviour, it was discovered that suburb-to-suburb trips have increased in number relative to suburb to CBD trips due to the decentralisation of jobs (Levine, 1995). Abelson observed that the rise in housing prices near the suburban centres doubly penalise those who commute to CBD. They have to incur extra commuting costs and at the same time pay higher housing prices near the suburban centres.

Abelson states: "[h]ouses are in effect a collection of attributes. House prices are determined by the quantities of each housing attribute and their implicit prices." He selected the following group of variables to explain the variances in house prices:

1. Housing Structural Attributes
   1.1. Typical Lot size
   1.2. Average house size, average # of bedrooms in 1976
   1.3. Percentage of brick houses in 1976
   1.4. Percentage of houses with mains sewer services in 1976
   1.5. Age of typical housing
2. Accessibility Variables
   2.1. Distance from the centroid of LGA to the centre of CBD
   2.2. Distance from the centroid of LGA to the nearest regional centre
   2.3. Whether LGA contained a rail station, dummy variable
   2.4. Whether LGA received a ferry service, dummy variable
3. Neighbourhood characteristics

4. Local environmental amenities
5. Average distance to the coast
6. Whether LGA contained a major industrial area, dummy variable
7. Population density, an environmental dis-amenity
8. Access to employment
9. Local household income levels

They found LOGCBD (log of distance from CBD) to be the most significant variable. Household income along with age of housing, accessibility variables such as accessibility to rail or to the regional centre were not significant variables in explaining house prices. Changes in house prices were related strongly and inversely with distance from CBD. Coefficients for environment were positive, but insignificant at the 95% level. The coefficient for brick houses was positive. Abelson used the change in population, income levels, and employment as demand variables and the change in housing stock was considered as the supply variable.

Transportation infrastructure affects house prices in numerous ways. Decline in the cost of transportation due to improved road conditions, along with a drop in gasoline prices, would cause an increase in housing values in the outer urban areas. Meanwhile, increased traffic congestion results in higher travel times and thus contributes to the increase in travel cost.

The decline in land prices with the increase in distance from CBD was higher than the decline in house prices. Land prices fell by 9% per km in 1931, 8% per km in 1948, and 3% per km in 1968. While house prices fell by 2% per km in 1931, 1% per km from 1948, and 0.5% per km in 1968.

As argued before house price appreciation rates vary with location. The change in house price appreciation rates with distance from the CBD has been a subject of several other studies. In another study, house price variation was explained using a distance decay function, changes in population and housing stock, and changes in ethnic mix (Archer, et al. 1996). Distance decay should be dealt with caution as the change in commuting cost may or may not be positively correlated with change in distance. A flattening rent gradient, i.e., increase in rent values at the suburban fringe, may result from a decline in transportation costs.

The spatial variable, Census Tract (CT) ID, in the model contributed only 3% to the explaining power of the model. Original CTs were aggregated to a smaller spatial resolution in order to capture enough transactions to estimate the model.

Increase in average household income will cause an increase in the appreciation rates of properties at the urban fringe. According to Muth, cited in Archer, Gatzlaff, and Ling, this happens because the gain in savings in rent for additional housing outweighs the commuting costs (Muth, 1969). If vintages of houses differ by size, with larger houses having the potential of upward filtering, rising average income level will favour parts of the city with larger units in stock.

A generalised version of the repeat-sales index was used to estimate housing price appreciation. The data set consisted of 42,890 repeat sales in 79-CT groups in metropolitan Miami. The properties were geocoded to the respective CT. In addition, CTs with lesser number of observations were dropped from the analysis. They found that only 13 of the 79-CT groups have greater than 1% annual appreciation rate. Statistically, speaking, more than half of the CT groups exhibited appreciation rates that were significantly different from the overall appreciation rate of the metropolitan market.

When CT group id was excluded from the model specification, the model explained 76% of the variance in house price appreciation. The addition of CT group id explained an additional 3% of the house price appreciation. There could be several reasons for the poor performance of CT id. Since the data set was aggregated to CT group level, much of the variance in property values was lost in aggregation and hence identifying records by CT did not increase the explanatory power of the model. In disaggregate model specification, locational attributes add significantly to the explanatory power of the model.

The log of distance variable returned a negative coefficient, indicating that the house price appreciation rate declines with increase in distance from CBD. This could also be related with the declining commuting costs. The percentage in non-white population had a negative influence on appreciation rates, while the percentage change in population had a positive coefficient.

Economic variables do play an important role in explaining the variance in house price appreciation. However, economic variables are more significant in long-run models than in short-run models. Often economic variables are reported once a month, e.g., unemployment rate. At the same time, change in certain variables is more evident on a monthly level, rather than on a weekly or daily level. This is true for mortgage rates and other similar variables. One such study focuses upon economic determinants at the local level (Clapp and Giacotto, 1994). The study involves the use of the Hedonic method to estimate the first sales price. Later, the assessed price was used to develop the repeat-sales index. The following economic variables were applied in the study:

1. Change in employment
2. Expected inflation
3. Unexpected inflation
4. Risk premium on large-term bonds
5. 3-month Treasury Bill Rate
6. Dividend Yield on Portfolio of Junk Bonds
7. Dividend Price Ratio
8. Annual change in Log Price Index

The study concluded, "housing price changes respond negatively to contemporaneous real interest rates and to the expected inflation because increases in the discount rate reduce asset prices." They also discovered that expected inflation and unemployment !ower house price changes. However, unexpected inflation increases housing prices.

Another research studied the changes in housing prices against the changes in employment in the manufacturing sector, demographics, supply of new housing, distance from CBD, and aggregate school enrolments for Boston (Case and Schiller, 1996). A weighted-repeat sales method, using arithmetic weighting, was used to estimate the models. The data set consisted of 135,000 pairs of sales between 1981 and 1994. First an aggregate index for the entire study area was estimated, followed by estimation of indices for 168 independent jurisdictions comprising the study area.

The change in housing prices in Boston is similar to the change in housing prices in the GTA. The two metropolitan areas experienced boom and bust cycles at the same time. They discovered that nominal housing prices (not corrected for inflation) rose more sharply than the increase in consumer prices. Between 1993 and 1998, real housing prices rose more than 115% in five years, averaging 15% per year. The peak was long-lived in Boston while the peak-to-trough decline was only 27%, much less than the increase in prices.

The disaggregate data set revealed that housing prices appreciated by 178% in real terms for towns with the highest appreciation, while for towns with lowest appreciation rates, housing prices increased by 92% only in real terms between 1982 and 1992.

The following census variables were used in the models:

1. Fraction of residents working in manufacturing
2. Fraction of residents working in service sector
3. Fraction of residents between 35 and 60 years old
4. Housing permits per 100 housing units
5. School spending per weighted pupil
6. Median single family housing value
7. Median household income
8. Fraction of residents of Asian decent
9. Fraction of residents with college education
10. Crimes per resident
11. Effective residential rate

Three long-run models, one for the entire boom-bust cycle, one from 1982 to peak, and one for peak to trough were estimated. Results from regression analysis revealed that houses in high-quality school districts appreciated less than the houses in low-quality school districts. Towns with a large pool of middle-aged residents experienced a higher appreciation of housing prices.

Distance from CBD turned out to be a significant variable. Housing values appreciated faster in towns located closer to Boston than remotely located town. In the presence of other explanatory variables, household income did not return a statistically significant variable. The controversy over household income lingers on as researchers often find household income to be an insignificant variable in explaining the variance in housing prices.

Not so surprising was the finding that housing prices in low-priced towns appreciated more than the average up to the end of boom cycle. However, these towns experienced an above-average decline in housing values during the bust cycle. In addition, housing prices rose slowly in towns that allowed supply of new housing. However, for towns near Boston, where zoning bylaws restricted increase in density, housing prices appreciated faster, owing to higher demand and lagged supply of residential real estate. It should be noted that towns situated closer to Boston owe proximity to Boston for faster appreciation of property values. Hence, lack of supply of new housing may not solely be credited for slower appreciation rates.

The owner-occupied housing market influences, and at the same time, is influenced by the rental and land markets. However, the cross-market effects are often neglected in developing housing price models. A two-stage least squares joint estimation of housing prices, where the cross-market elasticities were explicitly incorporated for the three markets: namely owner-occupied, rental and land markets, explained such cross-market effects (Potepan, 1996).

The three simultaneous equations included one for the owner-occupied housing market, one for the rental market, and one for the land market. The Hedonic index of owner-occupied, single family housing price that was adjusted for inflation was used as the dependent variable for the housing price model. Similarly, for the rental model, the inflation adjusted, Hedonic index of monthly price of rental housing services was used as the dependent variable. The inflation-adjusted price per square foot of vacant building sites was used for the land model. The three dependent variables also acted as the explanatory variables in the other equations to incorporate cross-market effects.

Results from the two-stage lest squares regression revealed that household income was not significant at 95% level in explaining variance in the housing values. Similarly, mortgage rate was also not significant at the 95% level. The author reported results for 90% level. Though the author insists that household median income levels play a significant role in the model, the fact remains that the income coefficient was not significant at 90% level, a fact that is consistent with other studies.

The results suggested a positive relationship between housing values and rent. This implies that higher rents in the housing services market would increase the demand for housing capital. Property owners and homeowners would try to increase the quantity of housing services they supply in the market. The increased demand for housing services would in turn cause an increase in the price of housing capital. Similarly, an increase in the price of housing capital would increase the demand for housing services. To meet that demand, more land would be consumed and hence the increase in the price of housing capital would in turn cause an increase in the price of land.

In a study of housing price variation in the UK housing market between 1971 and 1989, it was observed that real disposable income was the most significant variable in determining house prices. Variables explaining the supply of new housing returned statistically more significant parameters than interest rate (Stern, 1992).

The British study proposed that supply of existing stock was elastic, while the supply of new stock was inelastic in the short-term and suggested following determinants of housing supply:

1. Rate of household formation
2. Amount of private house-building
3. Trend of private house prices
4. Income levels
5. Need for social housing
6. Political party in power

The following determinants of housing demand were cited in the study:

1. Growth in real personal disposable income
2. Real mortgage interest rates
3. Household formations
4. Buying by old people trading down
5. Buying by divorcees trading down
6. Lower house prices
7. Mobility/migration

Using the two-stage least squares technique three simultaneous equations—explaining the rate of house price inflation, the growth of private housing completions, and the growth of social housing completions — were estimated. The most interesting finding was that housing supply variables were more significant in explaining the inflation in housing prices than more common variables, such as interest rates.

Similar methodology and results were found in several other studies, which are not discussed in detail for brevity, yet are mentioned here for reference. Various versions of Hedonic price models were estimated by [(Fleming and Nellis, 1992; Haurin and Handershott, 1991)].

From here onwards, we will focus on spatial autoregressive models and concerns related with their estimation. Often, the specification of a Hedonic Price Index involves a selected measure of housing value (sale price, monthly rent or imputed rent) related to a set of structural attributes of housing unit and neighbourhood characteristics. Consider the following equation:

$$P = f(S\beta, N\gamma) + \xi$$

... 2.2

P = vector of observed housing values

S= Structural attributes (age and size of the house)

N= matrix of neighbourhood characteristics

β,γ are the parameter vectors corresponding to S & N respectively

It is assumed that the functional form of the model is linear and that the parameter vectors are stable in time and/or space. The vector of error terms are assumed to be independent with covariance given by following equations:

$\sigma(\xi_i, \xi_j) = 0$, where $i \neq j$ and homoskedastic ➔ $\sigma^2(\xi_i) = \sigma^2$

The error covariance, $\sigma(\xi_i, \xi_j)$ may not be equal to 0, but a function of spatial proximity among houses. The assumption that random error terms are uncorrelated can only be made if the Hedonic price function is properly specified so that it incorporates the complex dynamics in the operation of local housing markets (Can and Megbolugbe, 1997). Housing prices are correlated in time and space. Often a metropolitan area is composed of neighbourhoods that have similar housing units with comparable housing values. The housing stock in the Bridle Path neighbourhood in Toronto is fundamentally different from the housing stock in the High Park neighbourhood. However, the housing units in the above-mentioned two neighbourhoods have much in common among themselves, such as size, quality and other neighbourhood attributes. Value of a property in the High Park neighbourhood is comparable to the value of similar properties sold in the recent past. This phenomenon is often referred to as spatial autocorrelation.

The use of Ordinary Least Squares (OLS) regression is not feasible in the presence of spatial autocorrelation in housing values. In addition, variance in housing values may not be constant within different neighbourhoods in a metropolitan area. Consider the following example. In the High Park neighbourhood the average price of a single family-housing unit is assumed to be $210,000. It is safe to assume that the housing unit in question could be sold for any price between $200,000 and $220,000. However, a mansion in the Bridle Path neighbourhood can have a standard deviation in sales price of over $50,000. The above discussion suggests that as the price of the housing unit increases, so does the variance in housing price. Heteroskedasticity, a condition where variance is not constant, can be checked graphically by plotting the residuals against fitted values (Sen and Srivastava, 1997). The increase in variance in the error term with the increase in the fitted values suggests presence of heteroskedasticity.

Heteroskedasticity does not effect the OLS estimates, but results in large variances of the estimated parameters (Can 1992). Meanwhile, spatial dependence or spatial autocorrelation will lead to biased estimates of the residual variance and inefficient estimates of regression coefficients when OLS regression is used. Spatial dependence in residuals will make T- and F-tests invalid and will lead to unreliable estimates of the dependent variable due to inflated variance in regression coefficients. "Unlike serial correlation, the literature on estimation in the presence of spatial correlation is relatively sparse although spatial correlation frequently has more serious effect than does serial correlation (owing to the larger number of non-zero elements in the error covariance matrix)", (Sen and Srivastava, Page 144).

Until the early 1970s, use of spatial statistics was not common among social scientists. Econometric techniques offered little or no solutions for problems associated with spatial heterogeneity that existed in regional data sets. Strong assumptions about stationarity[6] and isotropy[7] in spatial data sets were employed, along with the more common assumptions of homoskedaticity. The breakthrough in spatial econometrics came in 1973 when Cliff and Ord published their seminal work on spatial autocorrelation, which transformed the discourse in spatial statistics (Cliff and Ord, 1973).

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[6] Local invariance of data, i.e., relationship within any subsets of points remain the same, no matter where the points reside in space.

The monograph covered topics such as, spatial autocorrelation, analysis of regression residuals (spatial autoregressive error models), and empirical examples of tests for spatial autocorrelation in autoregressive error models. A few years later, Cliff and Ord published the revised and expanded version of their work and included topics such as, analysis of spatial point patterns, correlograms and variograms (techniques used in our study), and a detailed discussion on spatial autoregressive models (Cliff and Ord, 1981).

Spatial Statistics made strong headway with the improvement in computer hardware and software. With the advent of Geographical Information Systems (GIS), offering efficient storage of geo-referenced data, and superior processing speed in Personnel Computer environment, research in spatial autocorrelation and auto-regressive models made tremendous strides. Luc Anselin, in 1980, programmed routines in Minitab ® to compute Moran's I and Geary's C: statistics used to quantify spatial autocorrelation in geo-referenced data. The two statistics existed since early '50s, however, being computationally intensive, their widespread use became possible only after the introduction of efficient Personal Computers.

The state-of the-art in econometric software is constrained by computer resources. At present, it is not possible to estimate models with large data sets involving more than a couple thousand observations. The problem lies with computer hardware resources, RAM to be precise, and not with the software. The inversion of N x N matrix (42,000 x 42,000 matrix in our study) demands huge system resources, found only in very advanced main frame computers. Until better subroutines to invert large matrices become available, or better Personal Computers become available, estimation of unbiased, spatial autoregressive models would be confined to smaller data sets.

Splus, a statistical software package, offers a spatial module that is capable of performing spatial analysis, including autoregressive error models (Kaluzny, et al. 1996). In an earlier study, we employed Splus SpatialStats to model the price of condominium sales at the Enumeration Area level. A Conditional Autoregressive Error Model was

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[7] A spatial process that evolves the same in all directions.

specified for the study. However, the study was confined to 600 Enumeration Areas as the computer ran out of resources. Models were estimated on a Pentium 200 MMX computer with 32 Megs of SDRAM. Other spatial econometric software capable of estimating spatial autoregressive models include SpaceStat by [(Anselin, 1992; Anselin, 1995)]and InfoMap by (Bailey and Gatrell, 1995).

SPATIAL AUTOREGRESSIVE MODELS

An auto-regressive model differs from OLS in model specification. A weight matrix is often introduced to capture the spatial interactions latent in the independent variables. The derivation of (Maximum Likelihood Estimation) MLE for mixed spatial autoregressive model is documented below to present the computational intensive algorithms. Often an auto-regressive model is expressed as follows:

$$y_i = \rho W_i y + \beta X_i + \varepsilon_i \qquad \ldots 2.3$$

Where y_i = dependent variable,

W_i = weight matrix,

X_i = Structural attributes of housing or neighbourhood characteristics

ε_i = the error term

ρ, β = estimated coefficients

W*y thus becomes the spatially lagged variable that will include the average of housing values from the contiguous areas as an additional explanatory variable. The prime focus in any spatial research involves the specification of the weight matrix. An incorrect specification of W can result in biased estimates and inflated residuals.

As argued before, use of OLS techniques with small sample could return erroneous results. Consider the following first order spatial autoregressive model:

$$Y = \rho WY + \varepsilon \qquad \ldots 2.4$$

Or $Y = \rho Y_L + \varepsilon$, where $Y_L = W \times Y$ (spatially lagged variable)

The OLS estimate for ρ, denoted by r is given by:

$$r = (Y_L' \times Y_L)^{-1} (Y_L' \times Y) \quad \ldots 2.5$$

Substituting Y from eq. 2.4 in 2.5

$$r = (Y_L' \times Y_L)^{-1} Y_L' (\rho Y_L + \varepsilon) \quad \ldots 2.5 (a)$$

$$r = (Y_L' \times Y_L)^{-1} (Y_L' Y_L)\rho + (Y_L' \times Y_L)^{-1} (Y_L' \varepsilon)$$

$$r = \rho + (Y_L' \times Y_L)^{-1} (Y_L' \varepsilon) \quad \ldots 2.6$$

The expected value of the second term $[(Y_L' \times Y_L)^{-1} (Y_L' \varepsilon)]$ in the above equation does not equal to zero, thus making OLS estimates biased (Anselin, 1988). For spatial residual autocorrelation, where the residuals are effected by spatial autocorrelation, the OLS estimates are unbiased, yet inefficient "due to the non-diagonal structure of the disturbance variance matrix." Hence, MLE is often applied to obtain unbiased estimators. The following derivation is borrowed from Anselin (1988, Pages 61-63). Consider the following general spatial process model:

$$Y = \rho W_1 Y + X \beta + \varepsilon \quad \ldots 2.7$$

$$\varepsilon = \lambda W_2 \varepsilon + \mu \quad \ldots 2.8$$

With $\mu \sim N(0, \Omega)$

Expressing the model in a non-linear form:

$$Y - \rho W_1 Y = X \beta + \varepsilon$$

$$Y (I - \rho W_1) = X \beta + \varepsilon \quad \ldots 2.9$$

$$A Y = X \beta + \varepsilon \quad \ldots 2.10$$

where $A = (I - \rho W_1)$

Similarly,

$$\varepsilon\,(I-\lambda W_2) = \mu$$
... 2.11

$$B\,\varepsilon = \mu$$
... 2.12

where $B = (I-\lambda W_2)$
... 2.13

The error covariance matrix, $E[\mu\,\mu'] = \Omega$, is diagonal and there exists a vector of homoskedastic random disturbances, v, such as

$$v = \mu / \Omega^{0.5}, \text{ or } v = \Omega^{-0.5}\mu$$
... 2.14

alternatively,

$$\mu = \Omega^{0.5} v$$
... 2.15

Replacing μ into eq. 2.12

$$\varepsilon = B^{-1}\Omega^{0.5} v$$
... 2.15 (a)

By substituting the value of ε in eq. 2.10, we get

$$AY = X\beta + B^{-1}\Omega^{0.5} v \Rightarrow X\beta + (I-\lambda W_2)^{-1}\Omega^{0.5} v$$
... 2.16

$$\text{Or } v = \Omega^{-0.5} B\,(AY - X\beta) \Rightarrow \Omega^{-0.5}\,(I-\lambda W_2)\,(AY - X\beta)$$
... 2.17

In the above non-linear expression, v is a vector of standard normal and independent error terms. Since v can not be observed, the likelihood function is based on Y. In order to do this we use the "Jacobian" to derive joint distribution of Y from that of v. To transform vector of random variables v into vector of random variables Y, we use the Jacobian:

$$J = \det[\partial v / \partial Y]$$

$$J = \det[\partial\,(\Omega^{-0.5}\,(I-\lambda W_2)\,(AY - X\beta)) / \partial Y]$$

$$\Omega^{-0.5} (I- \lambda W_2) A| = |\Omega^{-0.5}| . | (I- \lambda W_2) | . |A|$$

... 2.18

The log-likelihood function for the joint vector of observations Y is given by

$$L = -(N/2) x \ln (\pi) - 1/2 x \ln |\Omega| + \ln| (I- \lambda W_2) | + \ln| (I - \rho W_1) | -1/2 v' v$$

... 2.19

Where $v' v = (AY - X\beta)' (I- \lambda W_2)' \Omega^{-1} (I- \lambda W_2) (AY - X\beta)$

... 2.20

Consider the mixed spatial autoregressive model where B=I, i.e. $\lambda W = 1$ and $\Omega = \sigma^2 I$, thus implying that error terms are spatially independent. The log-likelihood function becomes,

$$L = -(N/2) x \ln (\pi) - N/2 x \ln \sigma^2 + \ln| (I - \rho W_1) | -1/(2 \sigma^2) (AY - X\beta)' (AY - X\beta)$$

... 2.21

We need to substitute estimators for β and σ^2 in the above likelihood function.

For this particular case,

$$b = (X'X)^{-1} X'(I-\rho W)Y$$

$$b = (X'X)^{-1} X' Y - \rho (X'X)^{-1} X' WY$$

$$b = b_0 - \rho b_L$$

... 2.22

The OLS estimates of b_o and b_L are obtained from regressing X on Y and X on WY. Thus the two sets of residuals are obtained from the estimated coefficients.

$$e_o = Y-X b_o$$

... 2.23

$$e_L = Y- X b_L$$

... 2.24

The estimate of the error variance is given by

$$\sigma^2 = 1/N (e_o - \rho e_L)' (e_o - \rho e_L)$$

... 2.25

Substituting β and σ^2 in the Likelihood function returns a concentrated likelihood of the form:

$$L_c = C - (N/2) \times \ln [(1/N)(e_o - \rho e_L)' (e_o - \rho e_L)] + \ln|I - \rho W| \quad \ldots 2.26$$

C = Constant

With e_o and e_L given, the value of ρ that maximises L_c is determined. Based on that value of ρ the following equations are computed:

$$\sigma^2 = 1/N (e_o - \rho e_L)' (e_o - \rho e_L)$$

$$b = b_0 - \rho b_L$$

It can be seen from the above equations that apart from determining the value of ρ that maximises L_c, other steps could easily be accomplished in a standard statistical package. However, in order to determine ρ that maximises L_c, one needs an "appropriate nonlinear optimisation routine."

The fact remains that the above-mentioned algorithm could not be used with the disaggregate huge data sets used in our study. Unlike time-series autocorrelation, the weight matrix W is not triangular. The computation of asymptotic variance matrix of the maximum likelihood estimates requires computation of inverse matrices $W (I - \rho W)^{-1}$ and $W (I- \lambda W)^{-1}$. These are full matrices and hence could not be computed by applying sparse matrix algorithms (Anselin and Bera, 1998, P. 261).

There is a consensus in the housing literature that Hedonic price regression method offers the best econometric environment to model housing prices (Can and Megbolugbe, 1997). Our study of housing prices in the GTA draws heavily on the works by Ayse Can and Isaac Megbolugbe. However, researchers have applied several new techniques to estimate housing values. In one such attempt, kriging was applied to measure the magnitude of spatial autocorrelation (Dubin, 1992). Kriging is a well-known method in physical geography and forestry which facilitates predictions of unknown values of a random function from observations at known locations, using linear interpolation (Kaluzny et al., 1996). It was argued in the research that the stationarity assumption is violated in the study of housing values because of neighbourhood effects and due to differences in density of development. Using a small sample of housing sales in Baltimore in 1978, selling price was regressed over structural attributes of the housing units. Neighbourhood effects and accessibility measures were purposefully omitted from the analysis. Later, locational premium or penalty was added by accommodating neighbourhood effects through kriging.

In another research, neighbourhood effects and spatial dependence was explicitly modelled using Hedonic Price Index (Can, 1992). It was suggested that instead of a uniform housing market, there existed a segmented housing market and regression coefficients may not be constant for the entire study area.

Based on a small sample of 563 single-family housing sales in 1980 in Franklin County in Columbus Metropolitan Area, four different models were tested using OLS and MLE methods. Estimated models included a traditional Hedonic model; a spatial expansion model; an autoregressive spatial lag model; and a spatial expansion autoregressive (AR) model. For spatial models a spatial lag variable was included as an explanatory variable.

The LM test for spatial dependence revealed strong spatial autocorrelation. The autoregressive spatial lag model returned better results than the spatial expansion AR model. Also, to avoid multicollinearity, Principal Component Analyses was applied to construct a Neighbourhood Quality Index

The development of a Hedonic Price Index for the GTA relies heavily on the index developed by Can and Megbolugbe (1997). They have argued in the past that the existing indices were insensitive to the geographic location of dwellings within the metropolitan area, thus overlooking the inter-metropolitan variation in housing prices. Spatial Spill-over effects, they argued, in the operation of local housing markets require one to focus on spatial dependence in specification of housing price function. Spatial dependence varies with metro areas and over time.

Hedonic price indices of housing involves two steps:

1. Specification of a house price function that relates the house expenditure to certain structural and neighbourhood attributes.
2. Application of estimated coefficients to a standard housing bundle to construct indices.

Can and Megbolugbe (1997) adopted the "Comparable Sales" approach in specifying the spatial lag variable. At the heart of this approach lies the assumption that the price history in the immediate neighbourhood of a given property will have spillover effects on its market value. The prices of the most recent sales of similar properties are considered in estimating the market value of a property, controlling for differences in their structural attributes and neighbourhood characteristics.

To deal with the presence of spatial autocorrelation in the housing values, one needs to be careful about the spatial externalities in the operation of housing markets, thus requiring one to specify correct model specification to prevent errors due to spatial autocorrelation. If left untreated, spatial autocorrelation would lead to the biased estimates of the residual variance. In addition, spatial dependence in residuals will make T- and F-tests invalid along with returning unreliable estimates of dependent variable due to inflated variance in regression coefficients. Hence, Can and Megbolugbe (1997) suggest extra care in both model specification and estimation method.

Housing is a durable good that is fixed in space, i.e., housing structure is fixed in its geographical location and alterations are costly, hence locational effects are an integral component of the way in which housing markets function both at individual and aggregate levels. In an earlier study, Can (1992) distinguished between neighbourhood effects and adjacency effects on the price of housing units. She considered "Neighbourhood Effects" to be an array of locational characteristics, such as crime rate in the neighbourhood, or average family income in the Enumeration Area or in the Census Tract corresponding to the property in question. The "Adjacency Effects", however, were considered to be externalities associated with the absolute location of the structure, or the premium a household was willing to pay just for the "snob" value of a particular location. Adjacency effects thus capture the difference in price of identical condominiums with one being on the Penthouse floor, while the other unit on the floor right beneath it.

SPATIAL MODEL SPECIFICATION

A traditional Hedonic Model specification is portrayed in the following two equations:

$$P = \alpha + \Sigma_k \beta_k S_k + \xi$$

$$P = \alpha + \Sigma_k \beta_k S_k + \Sigma_l \gamma_l N_l + \xi$$

... 2.27

The variations in the house prices are explained in term of the differences in their structural characteristics (S) for k= 1, ..., K and/or neighbourhood characteristics (N) for 1, ..., L. β,γ are the parameter vectors corresponding to S & N, while α is a constant.

The error term in the model has two components:

Error resulting from the mis-specification of the functional relationship or from measurement errors, such as missing variables.

Transaction Error: Difference between the transaction price and the expected market price relative to other houses in the market.

Empirically these two components of the random error term are indistinguishable.

The structural attributes of a property and the desirability of the neighbourhood define the transaction price of a house at any time 't'. The price will also be affected by the prior sales of similar units in the vicinity. Thus, there exists a "functional interdependence" between the given price of a house at any time 't' and the prior sale prices in the neighbourhood given by the following equation:

$$P_{it} = \alpha + \rho \sum_j w_{ij} P_{j,t-m} + \sum_k \beta_k S_{ik} + \sum_l \gamma_l N_{ilt} + \xi_{it}$$

... 2.28

m=1,2,...; j≠i

W_{ij} is the weight that specifies the extent of influence of price of prior sales P_j (that occurred between time t-m and t) on the transaction price of the concerned property, which we would refer to as the anchor property. Meanwhile ρ is a measure of overall level of spatial dependence between $\{P_i, P_{j,t-m}\}$ pairs. This model incorporates both spatial and temporal functional interdependencies. The influence of prior sales is hypothesised as an inverse function of distance, d_{ij}. The lesser the distance between a prior sale and the anchor property, the more influence that prior sale will have over the transaction price of the anchor property. By introducing a spatially autoregressive term, $w_{ij} \times P_{j,t-m}$, as an explanatory variable, we have explicitly controlled for the functional interdependence.

In order to capture the temporal and spatial inter-dependencies, Can and Megbolugbe (1997) suggested two lag variables. For both lag variables, properties sold in the past six months of the date of sale anchor property were included in the analysis. In one specification, we will refer to it as Lag_var_1, all prior sales within a 3-kilometer radius of the anchor property, in the past six months, were included. While in the other specification, Lag_var_2, considered the three most recent sales. The following equations specify the construction of lag variables:

LAG_VAR_1 $= \Sigma_j[(1/d_{ij})/\ \Sigma_j 1/d_{ij}]\ P_{j,t-m,}$

... 2.29

Where m= 1,..., 6; j = 1,2,...,N; d_{ij}<=3km, and

$w_{ij} = \Sigma_j[(1/d_{ij})/\ \Sigma_j 1/d_{ij}]$

LAG_VAR_2 $= \Sigma_j[(1/d_{ij})/\ \Sigma_j 1/d_{ij}]\ P_{j,t-m,}$

... 2.30

Where m= 1...6; j= 1,2,3

These models were applied to a small sample of 944 housing transactions (25% random sample of 3776 third quarter, single family housing transactions) in Dade County, Florida, during the third quarter of 1990. Out of 4266 transactions, 3776 transactions with complete information were retained.

In our study, we applied lag_var_1 as a spatial autoregressive term for the development of spatial autoregressive models. We preferred lag_var_1 to lag_var_2, since the former mimics the real market behaviour better than the later. Restricting the number of influential properties to three in lag_var_2 lacks economic sense. In addition, the three most recent sales are not subjected to the 3-km radius constraint and hence could belong to a different population. There are great computational advantages of using lag_var_2, since it limits the number of influential properties to three. As for lag_var_1, all properties that satisfy the selection criteria, i.e., properties sold within a radius of 3-km within the past six months are included. This procedure is extremely computational intensive, (for details, please see Chapter 4) and at times result in selection of several hundred properties influencing the sales of a single anchor property.

Can and Megbolugbe (1997) used the following neighbourhood-level variables at the block-group level from the 1990 Census of Population and Housing:

1. Owner-occupancy rate
2. Median household income
3. Percentage of residents with college education
4. Percentage of households paying more than 30 % of income on shelter
5. median value of owner-occupied housing
6. median age of housing stock
7. Vacancy rate
8. Percentage of detached single family dwellings
9. Percentage of White-headed families
10. Percentage of Black-headed families
11. Percentage of Hispanic-headed families

The neighbourhood-level variables were factored together into a single variable to avoid multicollinearity in the explanatory variables. The structural attributes of the housing units were covered by the following variables:

1. Total Living Area
2. Land Area
3. Housing Age
4. Square of housing: to capture non-linearity associated with depreciation.
5. No. of full bathrooms
6. No. of bedrooms

Can and Megbolugbe (1997) reported OLS estimates for both simple and spatial Hedonic models. It was obvious from the results that spatial autoregressive models returned better results in terms of explaining power of the model and also offered better fit. The adjusted R-square for the traditional Hedonic model was reported to be 57%, while for the spatial Hedonic models, adjusted R-square averaged around 75%. Residual analysis revealed that for spatial models, the distribution of residuals was much less clustered.

Though the results of this research offer great insights into the spatial dependence in housing prices, the model specification, however, suffers from statistical lacunas. The authors used OLS estimates in the study, instead of the statistically robust technique of Maximum Likelihood estimation (MLE) that has to be used iteratively with OLS estimates to get statistically robust estimates for the coefficients. The detail specification of spatial autoregressive models, and spatial autoregressive error models was discussed in the previous section. In our study, we have also applied OLS techniques to estimate coefficients for the reason that the current hardware and software platforms are not adequate enough to handle data sets with thousands of observations. The state-of-the-art in software, capable of estimating spatial autoregressive error models, could only handle smaller data sets up to few thousand observations (Anselin and Bera, 1998).

The above discussion might give the impression that the methods applied in our study are flawed. This is not true. Our study involves huge data sets with approximately

30,000 records in every estimated model. The large sample size affords us the opportunity to apply OLS or Weighted LS techniques instead of ML estimators, since OLS estimates are statistically accurate for large sample sizes. "All in all, it would seem that there is no alternative to maximum likelihood estimation unless the sample size is large enough to permit a high degree of accuracy in the least square estimators," (Cliff and Ord, 1981, Page 238).

Spatial autoregressive techniques are focussed primarily at the analysis of areal data, instead of point patterns. Point Pattern data is often aggregated to the areal spatial resolution, e.g., Census Tracts, to apply spatial autoregressive techniques. The aggregation of data to larger areal units significantly reduces the number of observations, thus making it possible to apply computationally intensive spatial analysis algorithms. Our study of the sales price of residential, freehold properties employs a disaggregate data set that involves approximately 500,000 properties. The very size of our data set renders the conventional weight matrix specifications useless, since these specifications fit areal data sets better (Griffith, 1996).

CHAPTER 3

DESCRIPTION OF DATA SETS

A significant part of this research was devoted to the design, development and maintenance of a comprehensive database of structural attributes of housing units, neighbourhood characteristics, economic indicators, and digital maps. The scope of this research is confined to the study of housing values of freehold properties in the GTA between 1987 and 1995. The data sets were collected for housing sales between 1987 and 1997. Later, during the Explanatory Data Analyses, erroneous reporting of sales date were observed for the 1996 and 1997 records. These records have been excluded from the research until these anomalies can be corrected. The database system thus covers housing and Census data for GTA for the above-mentioned time period.

The data were collected in different types of medium, and hence could not be placed in one database. Tabular text type data were maintained in a database system, Sybase SQL®. The digital data sets, such as street network maps, were maintained in Geographic Information Systems, such as MapInfo® and Transcad ®. The entire database occupied 1.4 Giga Bytes of hard disk space. The following data sets were applied in the research.

1. Price & Structural Attributes of Residential Real Estate Properties

    1.1. Toronto Real Estate Board MLS data from 1987 - 1997

        1.1.1. Freehold sales

        1.1.2. Condominiums

1.2. TEELA database of residential real estate sales in Toronto (1987-1997)

2. Price & Structural Attributes of Commercial Properties

3. Statistics Canada Data sets

3.1. Census Data Sets

3.1.1. 1986 Census Tract Data on demographics, labour force statistics, & housing counts and values by type

3.1.2. 1991 Census Tract Data on demographics, labour force statistics, & housing counts and values by type

3.2. Digital Maps

3.2.1. Census Tract Maps (1986, 1991) for the GTA including Toronto, Hamilton, and Oshawa Census Metropolitan Areas (CMAs).[1]

3.2.2. Street Network Files (SNF) from 1996 Census of Population.

3.3. CANSIM Matrices on historical data for Interest rates, mortgage rates and Consumer Price Indices, and Labour statistics for Canada and Toronto region.

Hedonic Price Indices were estimated exclusively from the TREB database. Though TEELA covered the entire sales of residential real estate properties in the study area, it only offered limited information on structural housing attributes. The TREB database, however, covered a smaller sample, almost 80% of the entire residential real estate transactions, yet it offered extensive information on the structural attributes and price history of the real estate properties. Since the TEELA database covers each and every residential real estate transaction it creates a problem for the researcher as the data sets include properties that were sold at market price and other properties that were not sold at the market price due to numerous reasons. Property transactions between family members and friends may not be true market transactions. It is in itself an extremely

[1] Only a small part of Hamilton CMA that is spatially contiguous with Toronto CMA was included in the analysis.

difficult task to separate market transactions from the rest without explicit information on the nature of transactions. The TREB database, however, lists the sale of those properties that entered the real estate market at one point and transacted either at the market price or very close to the market price. Unlike TEELA, all real estate properties listed on TREB's Multiple Listing Service undergo a bidding process.

TREB data offer information on 522,507 properties that entered the market between 1987 and 1997. They include information on properties that were sold, leased, stayed active on MLS, cancelled or failed to undergo a transaction. For Hedonic Price Index estimation we included only those properties that were sold during the study period. Table 3.1 lists variables from the TREB data that offer information on structural attributes of housing units, such as size, number of washrooms, and parking facilities. Figure 3.1 presents the latest district boundaries for TREB.

The condominium data set recorded information on an additional 170,000 properties that were listed at the MLS between 1987 and 1997. TEELA covered the sale of 1 million properties for the same time period but for a larger area, covering transactions beyond the GTA boundaries. TREB also undertakes commercial property transactions. However, commercial transactions were not that frequent and hence the data set included 32,500 commercial property transactions. These data sets were imported into Sybase SQL database system where each data set was designed as a separate table.

Census Tract level data for the 1986 and 1991 quinquennial Census of Population were obtained from the Data Centre Library at the University of Toronto. In order to determine neighbourhood influences on housing values, information on a multitude of socio-economic variables was retrieved from the two Census years. The CT-based data was attached to individual properties in a GIS environment. Census offers a wide variety of information at various spatial resolutions, such as Block Face, Enumeration Area (EA) and Census Tract. Enumeration Area level data are more disaggregate and could offer better results than Census Tract level data. However, because of policy issues and privacy concerns, Statistics Canada suppresses information on certain variables at the EA level. For example, Statistics Canada often suppresses income variables at EA level files.

We could have opted for EA level Census data to minimise the aggregation bias, however the benefits of disaggregation are overshadowed by the loss of intrinsic information resulting from suppressed data. Therefore, we opted for CT-level data. It should be noted that CT boundaries are not entirely arbitrary, as is the case with EA boundaries. CT boundaries adhere to the underlying geography of the area. CT boundaries conform to natural landmarks, such as ravines and lakes. The grid structure of major streets in the GTA often forms the boundary of a Census Tract. Apart from conforming to physical restrictions, CT boundaries also adhere to municipal and provincial boundaries along with Federal Electoral District boundaries.

It has been argued in the previous chapters that neighbourhood characteristic affect housing values. One can argue that an Enumeration Area, being very small in size— sometimes an apartment building forms an entire EA— do not necessarily portray a neighbourhood. However, CTs are delineated in a manner to create areas, which "should be as homogenous as possible in terms of socio-economic characteristics such as similar economic status and social living conditions," (1997). The average number of individuals within a CT varies between 2500 and 8000. CTs come closest to the concept of a neighbourhood and thus became our choice for the desired spatial resolution of neighbourhood attributes.

There is a plethora of variables or attributes that could be extracted from the Census data. However, it is bad science to try to fit every piece of information to the model. Our choice of neighbourhood attributes depended upon the model specifications reviewed in chapter 2. Neighbourhood characteristics applied in previous research offered great insights into short listing of the variables. Table 3.2 lists the variables selected from the 1986 Census data.

Table 3.1. List of Variables from Freehold TREB Data

VARIABLES	DESCRIPTION
AIR_CON	Bin, 1 if Centralised Air Conditioned
AREA	Area of CT in sq. km
AVGPR95	Avg. Price / CT in 1995
BEACH	Binary: 1 if within 2 km of Lake, 0 otherwise
BEACH_1	Binary: 1 if within 1 km of Lake, 0 otherwise
BEACH_DO	Binary: 1 if within the two buffers, 0 otherwise
BEDS	No. of Bedrooms
BRICK	Binary: 1 if brick exterior, 0 otherwise
BSMT_FIN	Binary: if finished basement, 0 otherwise
CT_AVP	Ln (average housing price-91 Census)
CT_AVP95	Ln(Average value/CT, 95 FH)
D_CBD	Distance from CBD
DAYSON	No. of days on MLS
DETACH	Binary: 1 if detached 0 otherwise
(FILTER)	Binary: 1, if satisfies filter , 0 otherwise
FIRE_MLT	Binary: 1, if multiple fireplace, 0 otherwise
FIRE_NO	Binary: 1, if no fireplace , 0 otherwise
HWAY	Binary: 1, if within 2-km , 0 otherwise
HWAY_1	Binary: 1, if within 1-km , 0 otherwise
HWAY_DO	Binary: 1, within the two highway buffers , 0 otherwise
KITCHEN	No. of kitchens
LAG_VAR	Spatial Lag variable
LAT	Latitude
LOG_LAG	Ln (Lag_var)
LOG_PRIC	Ln of Sale Price
LONG	Longitude
LSTPRC	List Price or Ask Price
MALL	Binary: 1, if with 5-km , 0 otherwise
MALL_25	Binary: 1, if within 2.5-km , 0 otherwise
MALL_DO	Binary: 1, within the two mall buffers , 0 otherwise
NEW_PROP	Binary: 1, if listed for the first time , 0 otherwise
NO_WASH	No. of washrooms
PARK_CAP	Parking capacity
PARK_PRV	Binary: 1, if Private parking available , 0 otherwise
POOL_IND	Binary: 1, if indoor pool , 0 otherwise
POOL_UG	Binary: 1, if outdoor, regular pool , 0 otherwise
ROOMS	No. of Rooms
SLDPRICE	Sale Price
SUBWAY	Binary: 1, within 1.5-km , 0 otherwise
SWAY_1	Binary: 1, if within 1-km , 0 otherwise
SWAY_DO	Binary: 1, if within the two subway buffers , 0 otherwise
TAXES	Property tax
THREE_ST	Binary: 1, if three-storey , 0 otherwise

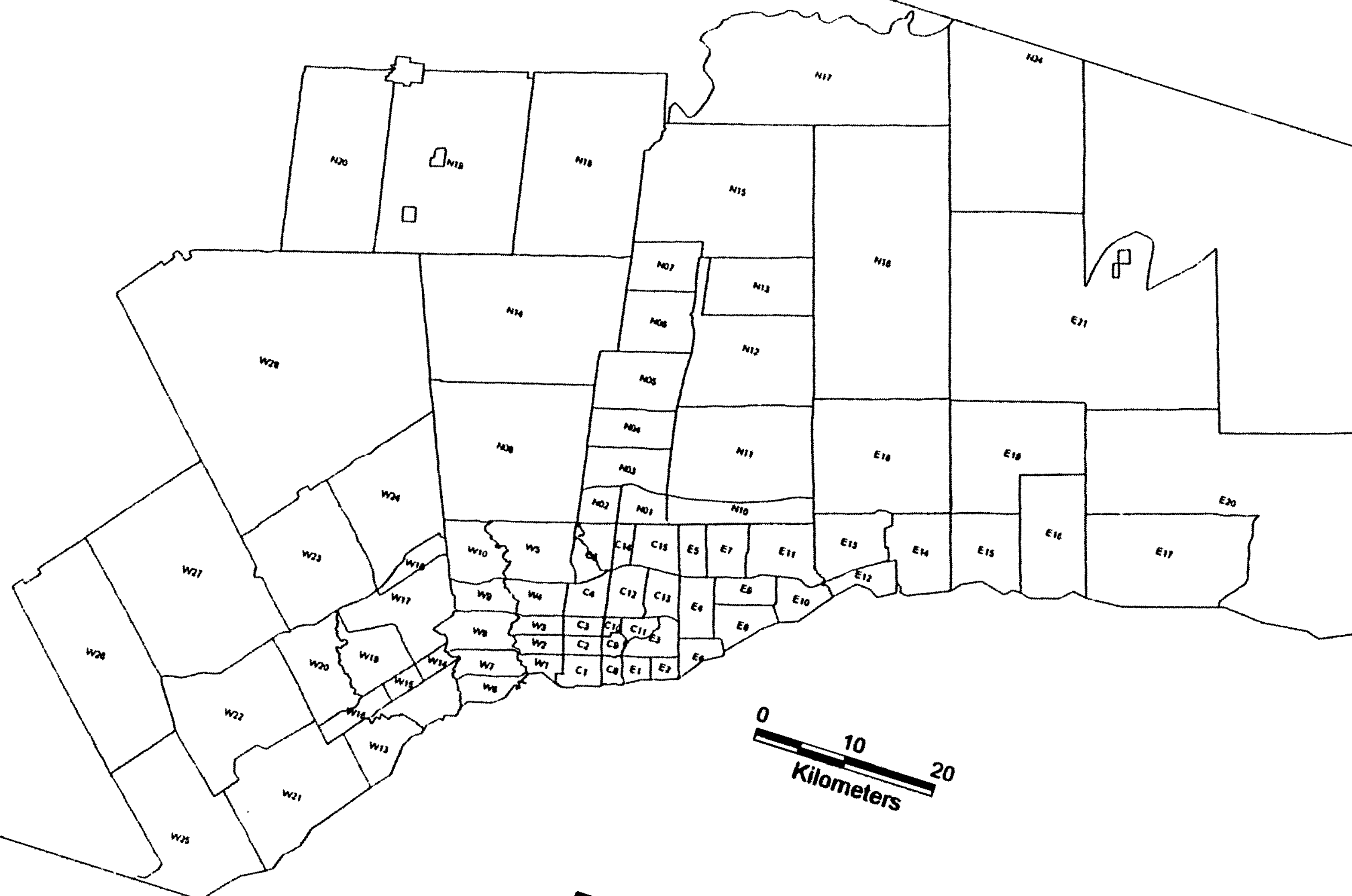


Figure 3.1: TREB District Map

Table 3.2: List of 1986 CT variables.

Variable Name	Definition
MAR2	total
	single
Total population by marital status	married
	widowed
	divorced
	separated
PAY1	total
No of households divided by their shelter expenses	less than $200
	$200-$399
	$400-$699
	$700-$999
	$1000+
RENT4	total
	less than $200
	$200-$399
	$400-$699
	$700-$999
	$1000+
MAR2	total
	single
Male Population by Marital status	married
	widowed
	divorced
	separated
MAR2	total
Female population by marital status	single
	married
	widowed
	divorced
	separated
MAR2	total
15 to 35 year old by marital status.	single
	married
	widowed
	divorced
	separated
	total family

SIZE16	1 child
Families with children at home	2 children
	3 children
	4 children
	5 children
	6 children
	7 children
	8+ children
	total families with children
	total families without children
	children 24 yr. and under
	total children
	avg. children per family
AGE20	Tot Familiies
	all under 6
	all 6-14
	all 15-17
	under 6 and 6-14
	under 6 and 15-17
	6-14 and 15-17
	under 6 and 6-14 and 15-17
	all under 17
	all 18+
	18+ and under 17
	families with children at home
	families without children at home
SEX1=1	total
MIG5	non-movers
	movers
	movers, non-migrants
	movers, total migrants
	movers, migrants from same province
	movers, migrants from different province
	movers, migrants from outside Canada
SIZE15	total families
Families of all types by No of Persons/Family.	2 persons
	3 persons
	4 persons
	5 persons
	6 persons
	7 persons
	8+ persons
	total persons
	avg. person per family
	Cen Fam
INC12	No. of Cen Families
	Agg Inc

	Avg Inc
SEX1=1	pop. 15+
SCH10	less than 9
	9-13 without cert. or diploma
	9-13 with cert. or diploma
	trade cert. or diploma
	some univ. or other non-univ. without cert.
	some univ. or other non-univ. with cert.
	university degree
SEX1	Pop15-plus
INC14	Agg_Inc
Total Population	Avg_Inc
SEX1	pop. 15+
LAB7	in labour force
Total Population	employed
	unemployed
	participation rate
	unemployment rate
	not in labour force
AGE GROUPS	AGE21_TOT
	total
	0-4
	5-9
	10_14
	15-19
	20-24
	25-29
	30-34
	35-39
	40-44
	45-49
	50-54
	55-59
	60-64
	65-69
	70-74
	75+
Total Private dwellings by TenureType	Total
DWEL11	Owned
	Rented
	4
	DWEL10
Rented Dwellings by Struural Type	total private dwellings

	single detached
	apartment 5+ storey
	movable dwelling
	other dwelling
DWEL10=1	tot_Priv_dwel
TIM5	before 1920
	1921_1945
	1946_1960
	1961_1970
	1971_1975
	1976_1980
	1981_1985
	1986
Private households	total private HH
	0.5 or less
	0.6_1.0
	1.1_1.5
	1.6_2.0
	2.1_Plus
	avg. person per room
Other type of housing	total private dwellings
	under $20 000
	$20 000-$34 999
	$35 000-$49 999
	$50 000-$64 999
	$65 000-$79 999
	$80 000-$99 999
	$100 000-$149 999
	$150 000-$199 999
	$200 000+
	average value

The 1987 freehold data set was the first data set to undergo Multivariate Analyses. During the analyses it was found that certain variables did not contribute much in explaining variance in housing prices. Those variables were not included in the following years' analyses. Data extracted from the 1991 Census consisted of a small number of variables as we discovered that certain variables were more significant than others. Table 3.3 contains CT level information from the 1991 Census that was applied to the models. The Census variable names were later changed to more self-explanatory names. Some new variables that were not available for the 1986 Census data, such as usual place of work, were added to the list of census variables.

In order to estimate spatial hedonic price models one needs to obtain spatial information about the properties, spatially varying neighbourhood characteristics. The 1986 and 1991 CT-level Census data corresponded to the digital CT maps for 1986 and 1991 respectively. CT boundaries were changed between the two censuses, and hence we obtained maps that corresponded exactly to the data sets. Only the 1996 Census SNF were used since these digital maps had the most updated information on physical changes in the street network in the GTA. Figure 3.2 shows the 1991-CT map for the GTA, while Figure 3.3 shows a zoomed image of the street network in the downtown Toronto area. A digital map of TREB district boundaries was also created to improve the hit rate during Geocoding. TREB has divided the GTA into some 70-odd districts and report monthly summary statistics for the housing values in the districts. The map shown in Figure 3.1 was thus digitised to use in spatial analysis.

The CANSIM database was consulted for economic data, such as Consumer Price Index and mortgage rates. The Data Library at the University of Toronto maintains the updated versions of CANSIM matrices. Table 3.4 lists variables from the CANSIM database that were used in model estimation.

Figure 3.2: 1991 CT map of the GTA

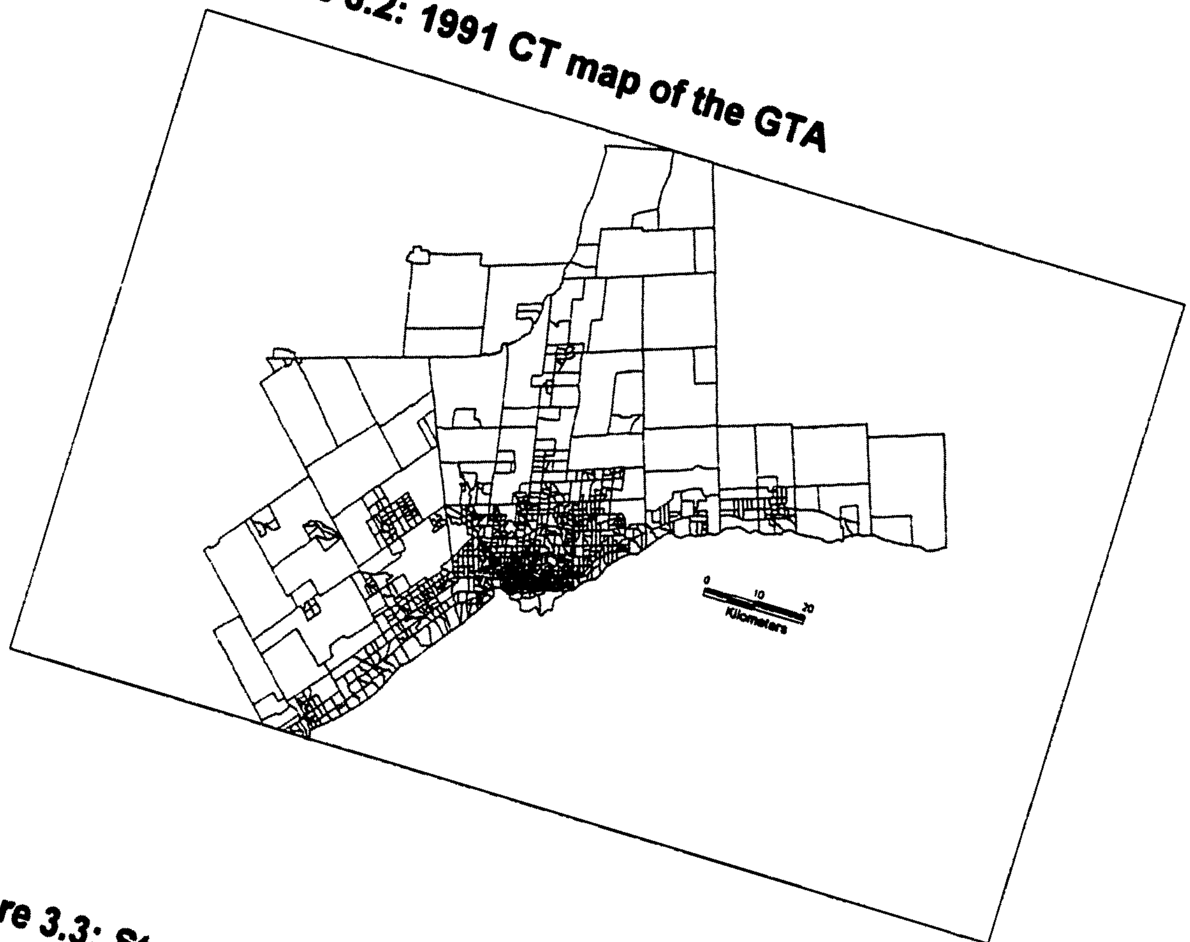


Figure 3.3: Street Network in downtown Toronto

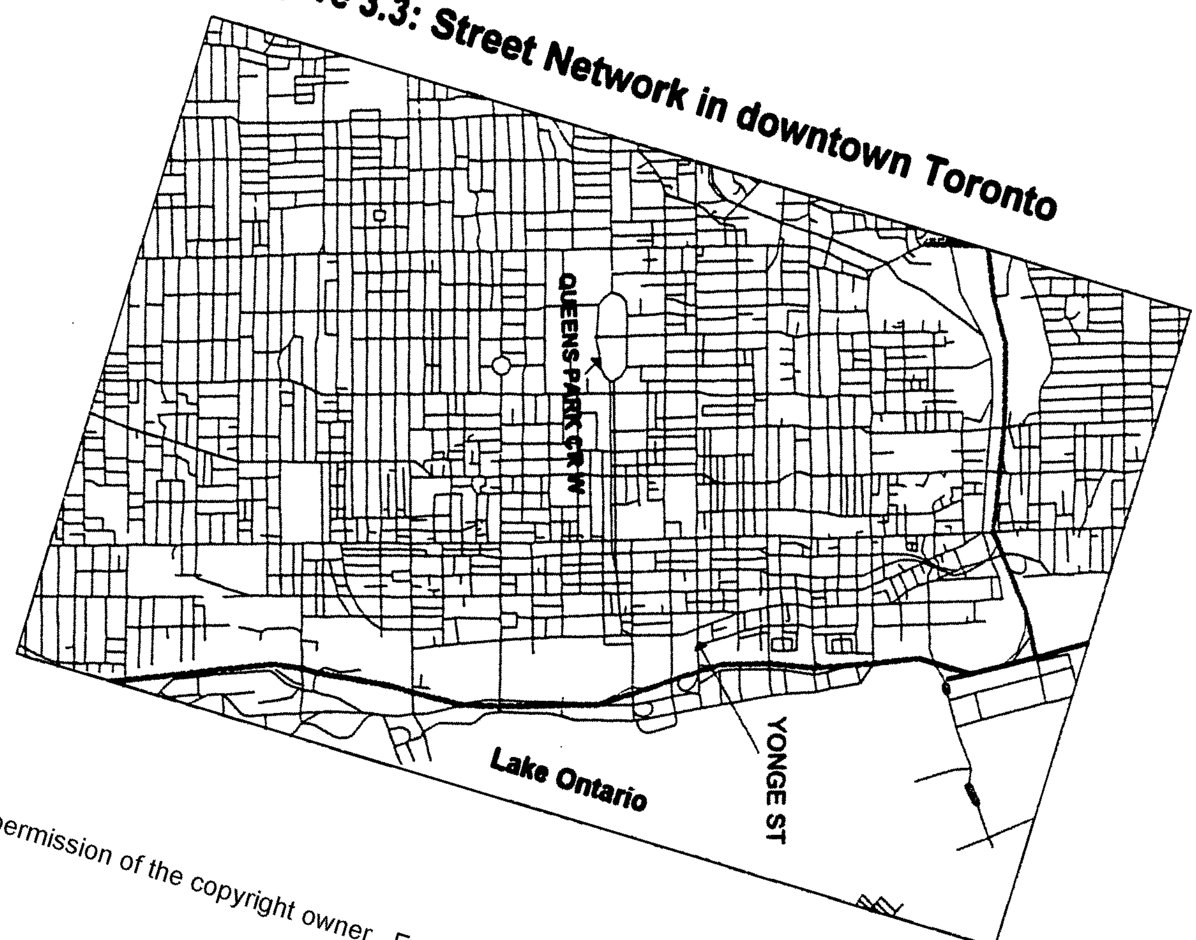


Table 3.3: List of 1991 CT variables.

Variable	Description
A91V2	Population, 1991
A91V3	Population percentage change, 1986-1991
A91V5	Total population
A91V11	Males, 20 - 24 years
A91V12	Males, 25 - 29 years
A91V13	Males, 30 - 34 years
A91V14	Males, 35 - 39 years
A91V27	Females, 15 - 19 years
A91V28	Females, 20 - 24 years
A91V29	Females, 25 - 29 years
A91V30	Females, 30 - 34 years
A91V40	Single (never married) persons 15 years of age and over
A91V41	Legally married (and not separated)
A91V42	Legally married and separated
A91V43	Widowed
A91V44	Divorced
A91V85	Occupied private dwellings - Single-detached house
A91V86	Occupied private dwellings - Semi-detached house
A91V132	Children at home - Under 6 years of age
A91V133	Children at home - 6 - 14 years
A91V137	Average # of never-married sons/daughters at home per census family
A91V145	Total number of persons 65 years and over
B91V137	Immigrant population
B91V198	Population 15+ years - University - With degree
B91V225	Employed, both sexes 15+
B91V226	Unemployed, both sexes 15+
B91V228	Unemployment rate, both sexes 15+
B91V401	Males, Usual place of work
B91V405	At home
B91V409	Usual place of work
B91V413	At home
B91V416	Total number of occupied private dwellings
B91V417	Average number of rooms per dwelling
B91V418	Average number of bedrooms per dwelling
B91V419	Average value of dwelling (26) $
B91V432	Average gross rent (28) $
B91V433	Gross rent >= 30% of household income (29)
B91V435	Average major payments for owners (26) $
B91V436	Owners major payments >= 30% of household income (30)
B91V448	Males - Worked full year, full time (33)
B91V449	Average employment income $
B91V454	Females - Worked full year, full time (33)
B91V455	Average employment income $

B91V476	$50,000 and over, males 15+
B91V477	Average income, males 15+ (37) $
B91V478	Median income, males 15+ (37) $
B91V492	$50,000 and over, females 15+
B91V493	Average income, females 15+ (37) $
B91V494	Median income, females 15+ (37) $
B91V496	Family income - All census families
B91V503	$60,000 - $69,999, family income
B91V504	$70,000 and over, family income
B91V505	Average income, family income $
B91V506	Median income, family income $
B91V509	Low income economic families (38)
B91V510	Incidence of low income (38) (39) %
B91V516	Incidence of low income (38) (39) %
B91V517	Household income - All private households
B91V525	$60,000 - $69,999, household income
B91V526	$70,000 and over, household income
B91V527	Average income, household income $
B91V528	Median income, household income $

Table 3.4: Variables extracted from CANSIM matrices on economic data

Variable	Description
CPI-All	Consumer Price index
CPI Land Index	Land price component of the CPI index (Toronto)
CPI House Index	House price component of the CPI index (Toronto)
CPI_Res-Own	CPI – Owner households
CPI_res-rent	CPI- rental households
CPI_Utilities	CPI-Utilities only
Yr-1-Mort	Chartered Bank Typical Mortgage Rate - 1 Year
Yr-3-Mort	Chartered Bank Typical Mortgage Rate - 3 Year
Yr-5-Mort	Chartered Bank Typical Mortgage Rate - 5 Year

DERIVED LOCATION VARIABLES

A comprehensive GIS analysis could have only been possible if the implicit location influences were included in the models. For example, there is a hypothesis that prices vary as the distance between the property and CBD increases, or that proximity to a big shopping facility adds value to the property. To test all these hypotheses binary variables and distance variables were created in a GIS environment. Once the data sets were geocoded, straight-line distances were estimated between each property and the CBD. Similar distance calculations were performed between properties and the ten largest shopping centres in the GTA. Similarly, binary variables, often referred to as dummy variables, were estimated for every property in the data set, measuring their proximity to the transportation network and the like. In the following paragraphs we discuss the development of these variables.

BEACH BINARY VARIABLE

Proximity to Lake Ontario has always been considered to add extra value to a property's worth. This may be true for certain neighbourhoods in Toronto, e.g., the Beaches neighbourhood in the south-east part of the GTA. However, such neighbourhoods are also known for the environment and ambience, which may have little to do with their proximity to Lake Ontario. Properties located in the Beaches neighbourhood, for example, have greater architectural value since these buildings are well-maintained old structures. At the same time, the neighbourhood is famous for its street-level shops, and hence the added value due to the "shopping experience".

At the same time, properties that are old and located closer to the lake have certain well-known structural defects. Properties located in the beaches neighbourhood are known for termite infestation. In addition, high humidity in the summer, and cold winds in the winter take away some value from the aesthetics of the location. In addition, Toronto is one of the few cities that underplayed its lakeshore real estate. Apart from pockets of good quality neighbourhoods, most of the lakeshore properties are either old, torn-down industrial properties or small, old residential properties that were initially built as summer cottages. We have included binary variables to capture the effect of proximity to Lake Ontario. The Beach variable has a value 1 for all properties located within a 2-kilometre straight-line distance from the lakeshore. In our sample of sales in the GTA in 1987, some 6254 properties out of 35,695 properties were situated within a 2-kilometre distance of the lake. The average sales price for such properties was $187,000. The average sales price of the entire sample was $209,500. Neighbourhoods located near the lake are relatively older neighbourhoods within the GTA, hence we assume that these properties would be older than the rest of the stock and hence would require upgrades and maintenance. This might explain why the average price of the properties sold near the lake is less than the average price of the complete sample. Two other binary variables, one capturing properties lying within 1-km distance of the Lake, and the other capturing properties that lie in the donut, area between the 1-km and 2-km buffer, were also created in a GIS environment, using MapInfo ®. Figure 3.4 presents the buffers created at the lakeshore.

HWAY_BINARY VARIABLE

Proximity to a highway is also assumed to add value to the property. The reason being the assumption that proximity to a major highway would reduce the trip travel times. To test this hypothesis, we selected properties that were within a 2-km Euclidean distance of the major highways in the GTA and assigned them a value of 1, while assigned 0 to the rest of the stock. These highways included HW 400, HW 401, HW 404, HW 407, HW 423, Don Valley Parkway, Gardiner Expressway, and the Queen Elizabeth Way.

For 1987, 16,347 properties out of 35,695 were located within a 2-km radius of the major highways. Surprisingly, average price of these properties ($208,740) was less than the average price of the entire sample, which was $209,500. The fact that proximity to a highway has its downsides could explain the reason behind lower average housing prices. Factors, such as noise pollution, air pollution and extra traffic on smaller arteries that is directed to the highways are some of the disadvantages of living close to a highway. Again, living close to a highway often places residential properties next to the commercial/industrial properties that lie adjacent to the highway system. The role of highways in influencing land use is explicitly evident from the fact that 16,347 properties out of 35,695 properties in the sample (45.8%) lay within a 2-km distance of the highway system. However, the true effect of proximity to a highway could only be known in a multivariate analysis, since these properties could be structurally different from rest of the sample. Properties lying immediately next to a highway have a handicap, while properties that are not adjacent to the highway, yet close enough to truly capitalise on proximity to a major highway could behave differently. To test this hypothesis two other variables were created. One variable captured properties situated with in a 1-km straight-line distance of the highway and the other variable captured the properties that were situated between the 1-km and 2-km buffer. Figure 3.5 presents the two buffers created for the highways in the GTA.

SUBWAY_BINARY VARIABLE

Accessibility to an efficient transit system, as the one in the GTA, almost certainly has influenced mobility decision of mover households. Toronto's transit system, especially the subway system, offers excellent links to the downtown core from suburban areas. Thus individuals who work in the downtown area may well prefer housing locations near the subway system.

To gauge the effects of the transit system on housing values, a binary variable was created that returned the value 1, if the property is located within 1.5- km of the subway line (Includes Yonge-University line, Bloor-Danforth line, and Scarborough LRT) and 0 for the rest of the stock. An alternative to selecting properties that are at a certain distance from the subway line would have been to select the properties that are at a certain distance from the subway station. Indeed, it's the access to subway station that is valued more than the access to the actual subway line. We preferred the subway line alternative for two reasons. First, in the high-density parts of the GTA, subway stops are within walking distance of each other. Hence, for high-density areas, both alternatives would have selected the same number of properties. However, in the suburban GTA, subway stations are not within a comfortable walking distance of each other. Yet, bus service operated by the (Toronto Transit Commission) TTC offers excellent and efficient connections to all subway stations from the main arterial network. Thus, selecting residential properties within a 1.5-km radius of a subway station would have excluded many properties that are within five to 10-minute bus ride of a subway station.

Two other variables, one capturing properties within a 1-km distance of the subway line and the other capturing properties that lie between the 1-km and 1.5-km buffer were also created (Figure 3.6). Thus, for 1987, 10,000 properties were located within a 1.5-km straight-line distance of the subway line. As expected, the average value of such properties, $227,000, was much higher than other properties within the sample.

POLYCENTRIC VS MONOCENTRIC

It can be argued that the GTA is a polycentric metropolis and no more relies solely on the business activity generated in the downtown core. To test this hypothesis, we measured straight-line distances between the individual properties and downtown Toronto (King and Bay intersection), and euclidean distances between the properties and ten regional malls (regional shopping centres) within the GTA. These malls were selected because of their size. We put the cut-off at 880,000 square-feet of gross leaseable retail area. Table 3.5 lists the selected shopping centres. It can be seen from the list that these malls are located in different parts (Figure 3.6) of the GTA, supporting the polycentric assumption.

Table 3.5: Major Shopping centres in the GTA

Mall	Gross Leasable Retail Area (sq. ft)
Yorkdale Shopping Centre	1,669,000
Toronto Eaton Centre	1,606,000
Square-One Mall	1,400,000
Oshawa Centre	1,100,000
Scarborough Town Centre	1,083,316
Bramalea Mall	1,069,000
Sherway Gardens	967,744
Markville Mall	917,881
Fairview Mall	889,459
Pickering Town Centre	889,159

Another hypothesis to evaluate is the assumption that proximity to a major shopping mall adds value to the property. Malls and shopping centres are situated either in existing high-density residential areas, or in expected high-density residential areas. Properties situated within a certain distance of these malls might pay extra for location and other amenities, such as better transit facilities. We created three binary variables to gauge the effects of proximity to the shopping centre. The first binary variable captured properties within a 5-km straight-line distance of the shopping centres and assigned a value of 1, if the property lies within the buffer and 0 otherwise. A second variable was created for a smaller buffer of 2.5-km straight-line distance and the third variable for the properties that lay in the donut area between the two buffers. For the 1987 data set, we noted that more than half of the sold properties, 18,000 to be precise, in our sample were within a 5-km radius of these ten regional shopping centres. The average sales price of such properties at $217,000 was more than the average price of the entire sample.

Several other transformed variables, derived from the existing variables, were created during model estimation. Their details are discussed in later chapters.

Figure 3.4: Two Simultaneous Buffers Capturing Properties within 1 or 2 km-distance From the Lake Ontario

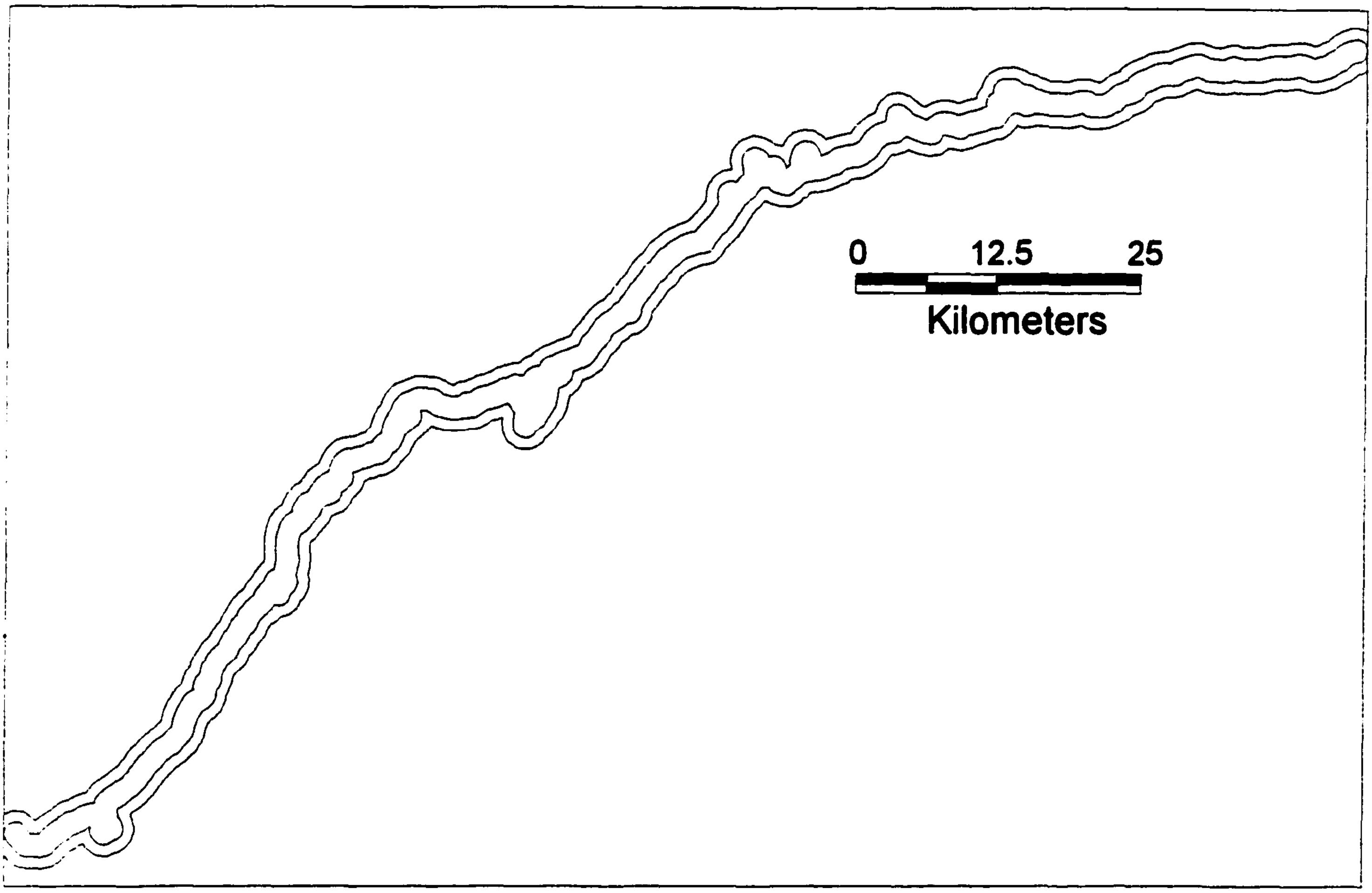


Figure 3.5:

Highway Buffer Map to Select Properties that were sold within 1or 2 km from highways

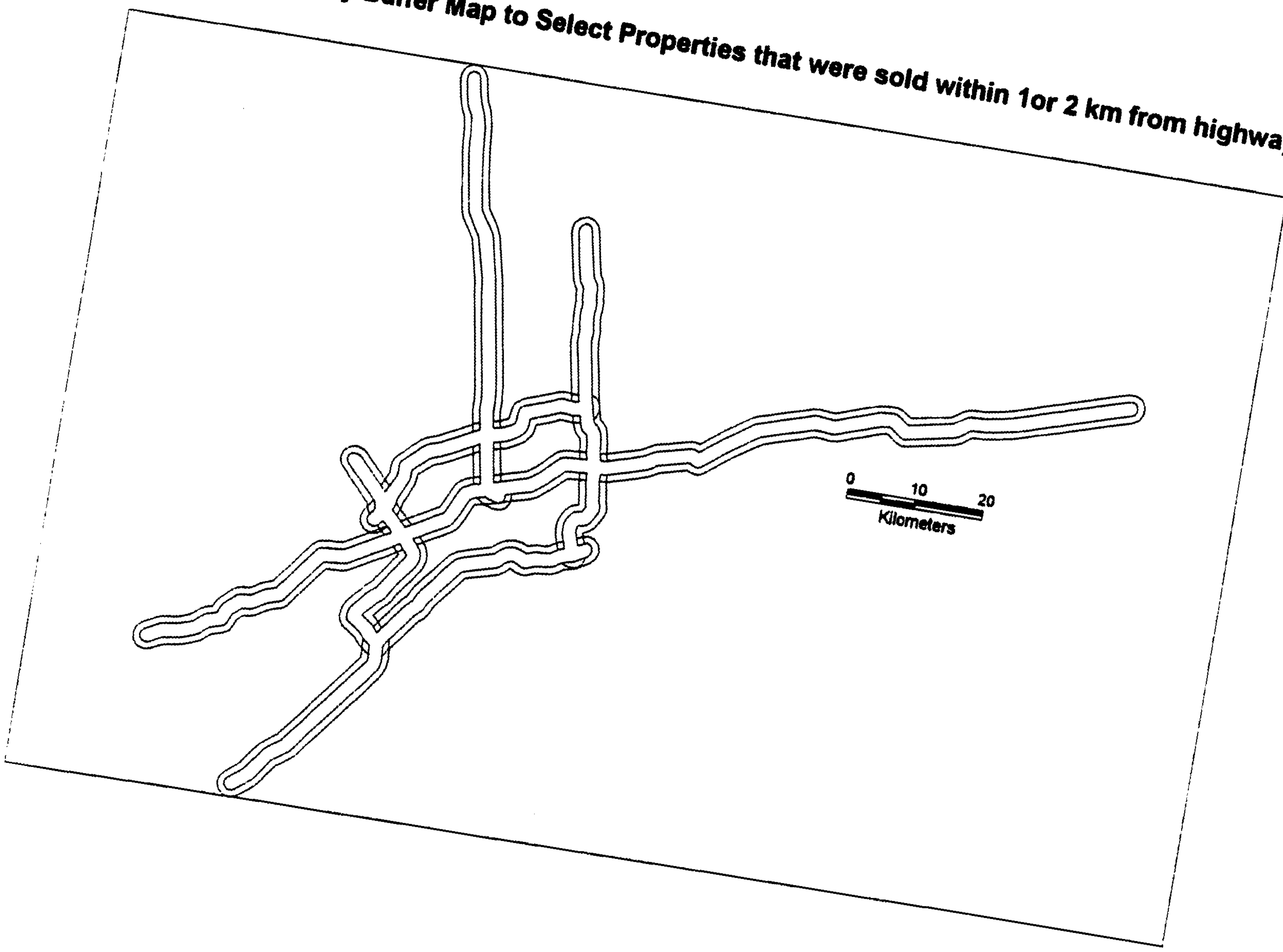
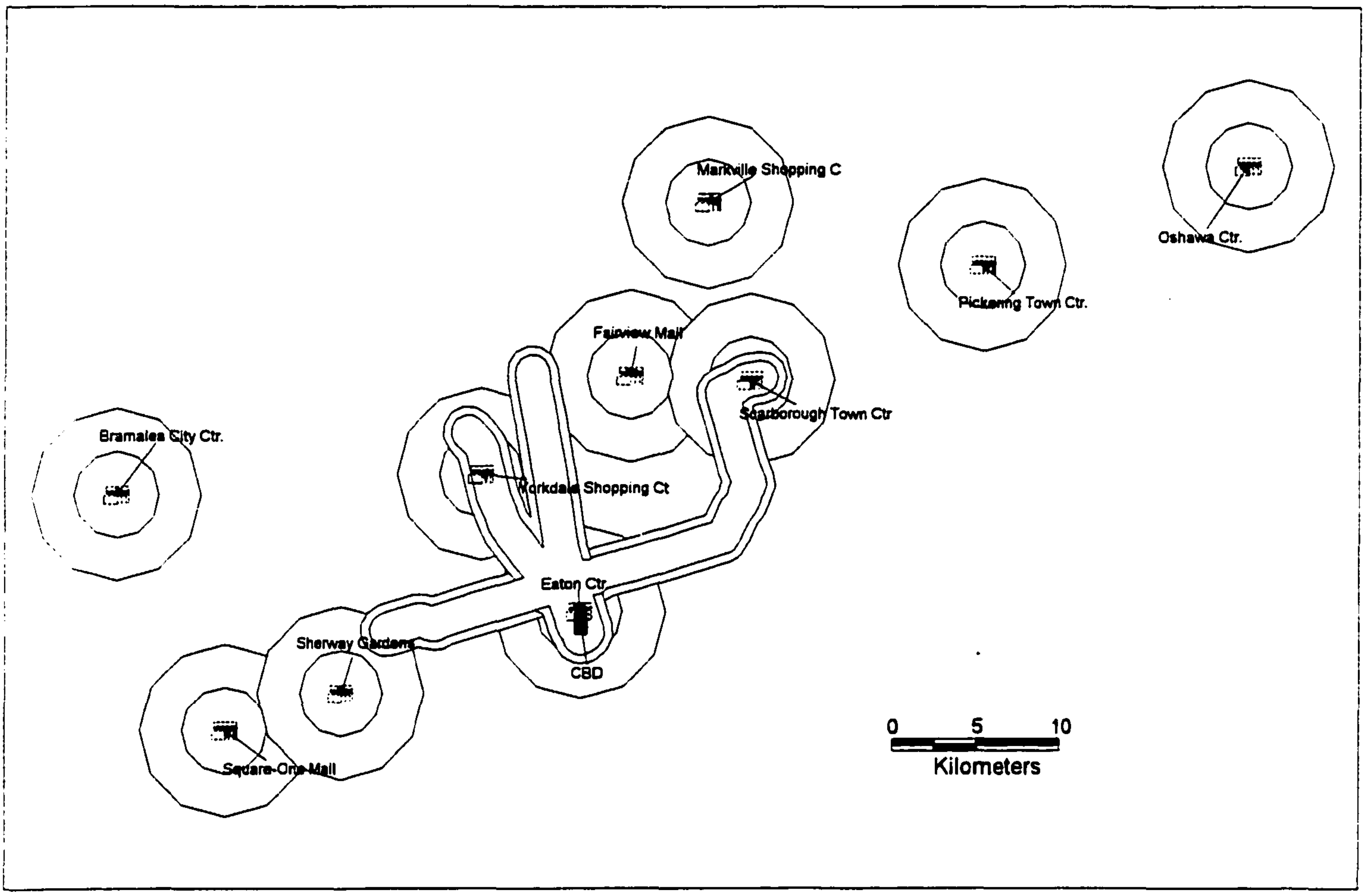


Figure 3.6:

2.5-km, and 5-km Buffers Around The Ten Largest Regional Malls in The GTA
To Capture The Effects of Proximity to Shopping Centres on Housing Values.
2-km, and 1-km Buffers Around the Subway System in the GTA. Includes Scarborough LRT.



DEFINING THE STUDY AREA

We have used the term GTA to describe our study area. Figure 3.7 shows the boundaries of the GTA. The area consists of the five regions: Toronto, Durham, York, Halton, and Peel. These five regions are further subdivided into 30 municipalities. The population distribution is concentrated in the lower half of the GTA. Most of the freehold sales in TREB database, 86%, were made in the GTA defined above. A detailed analysis of the spatial distribution of socio-economic variables follows in chapter 5.

GEOCODING

Geocoding is a process where x- and y- coordinates are attached to a geo-referenced data set. TREB data of real estate transactions carried incomplete information on the address of properties. The most important feature missing from data were the postal codes. TREB data were geocoded, based on the street name and number, using the Geocoding algorithm available in Mapinfo ®. Initially the success rate in geocoding was very low. The hit rate was improved tremendously after toiling with the data sets and the geocoding algorithm in Mapinfo. The first major problem encountered in geocoding was the fact that duplicate street names existed in the study area. For example, there are three St. George Streets in the GTA. If the algorithm encounters multiple street names, the record is not geocoded. We got around this problem by using two boundary maps. First we used the municipal boundary map since each record in TREB data set identified the municipality in which property was located. The modified algorithm first identified municipality in the boundary map and later searched for the exact street name and number in the SNF within the municipal boundary.

The hit rate was further improved after a digitised version of the TREB district map was replaced as the boundary map in the geocoding algorithm. More properties were geocoded as TREB district boundaries further narrowed down the search process.

Abbreviations used in street name specifications, e.g., Str. instead of St., W. instead of West, and Crs, instead of Cr. created mismatches. Again, the geocoding algorithm was modified after going through the street name abbreviations to include different specifications for street name abbreviations. The final success rate for geocoding was around 88%. The remaining 12% properties could not be geocoded because of incomplete address information in the TREB data set.

Since the postal codes were not specified in the data, geocoding could not benefit from the Postal Code Conversion File (PCCF), also available from the Data Library at the University of Toronto. PCCF contains x- and y- coordinates for the centroids of the postal codes. The use of PCCF in geocoding improves the hit rate tremendously. For incomplete street name/number information, the property could have been geocoded to the postal code's centroid.

Initially properties sold for less than $10,000 were excluded from the analysis. Table 3.6 gives the breakdown of the geocoding process. Later, during model building different constraints were applied on the data sets that further reduced the total number of records.

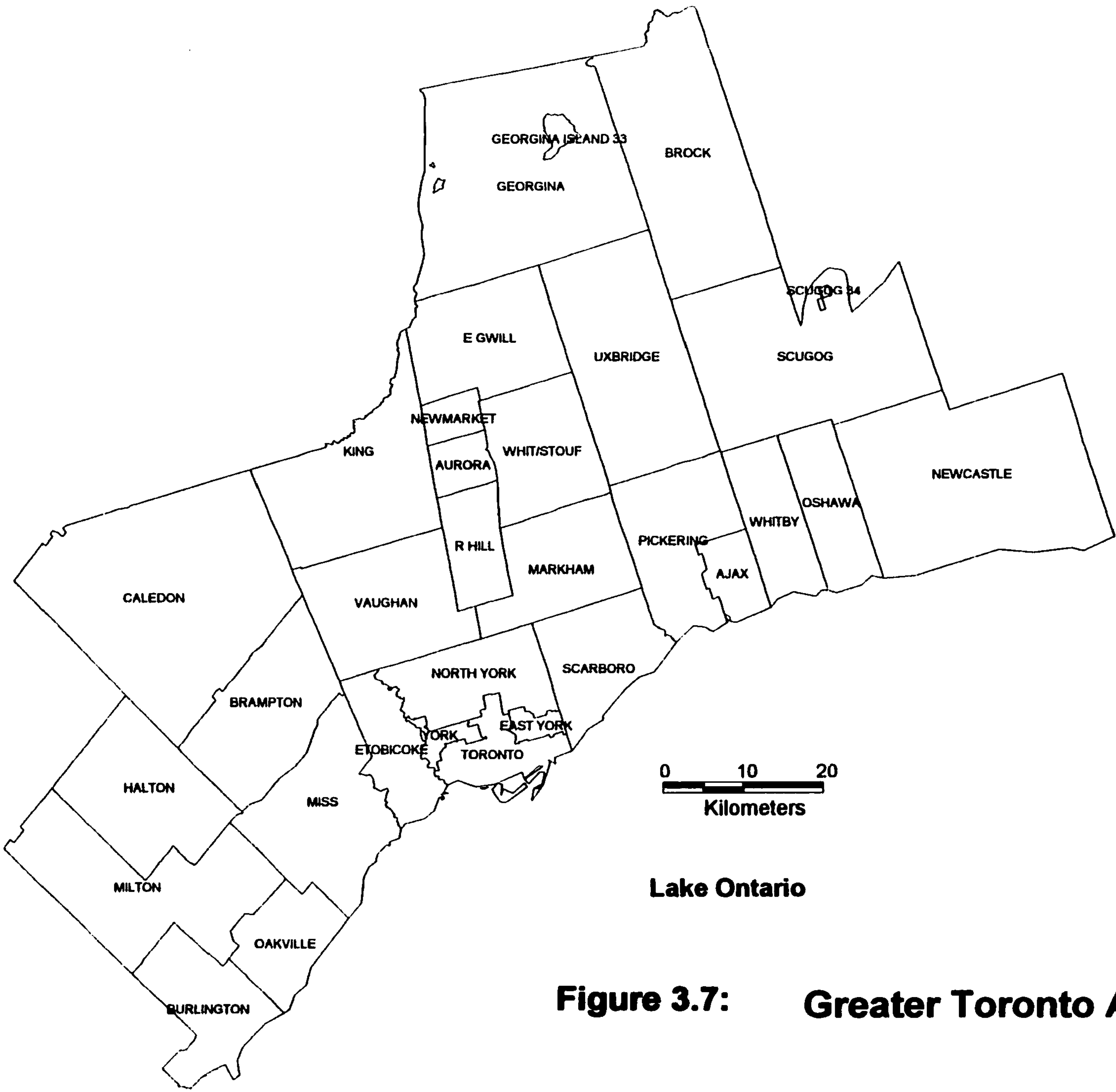


Figure 3.7: Greater Toronto Area

Table 3.6: A summary of geocoding of the TREB's freehold sales between 1987-1996

Year	Total Records	Geocoded	Hit Rate (%)	Failed Records	Miss rate (%)
1987	47865	42403	88.59	5462	11.41
1987	39994	35695	89.25	4299	10.75
1988	47865	42403	88.59	5462	11.41
1989	36004	32069	89.07	3935	10.93
1990	25556	22508	88.07	3048	11.93
1991	35263	30979	87.85	4284	12.15
1992	35932	31874	88.71	4058	11.29
1993	32651	28705	87.91	3946	12.09
1994	35731	31270	87.52	4461	12.48
1995	31510	27506	87.29	4004	12.71
1996	86916	77275	88.91	9641	11.09
Total Records	455287	402687		52600	
1987-95	368371	325412	88.34	42959	11.66

Figure 3.8 shows that the hit rate declined as we approached 1995. Surprisingly, the hit rate improved for 1996 data sets. As mentioned earlier, 1996 data set suffers from anomalies and hence was not used in the analysis. Table 3.1 indicates that number of sold properties increased surprisingly to 86916 in 1996, almost three times of the previous year. TREB's own records show that the number of single family dwelling sales averaged around 50,000 for 1996 and 1997. TREB has been informed of the anomalies in the data set.

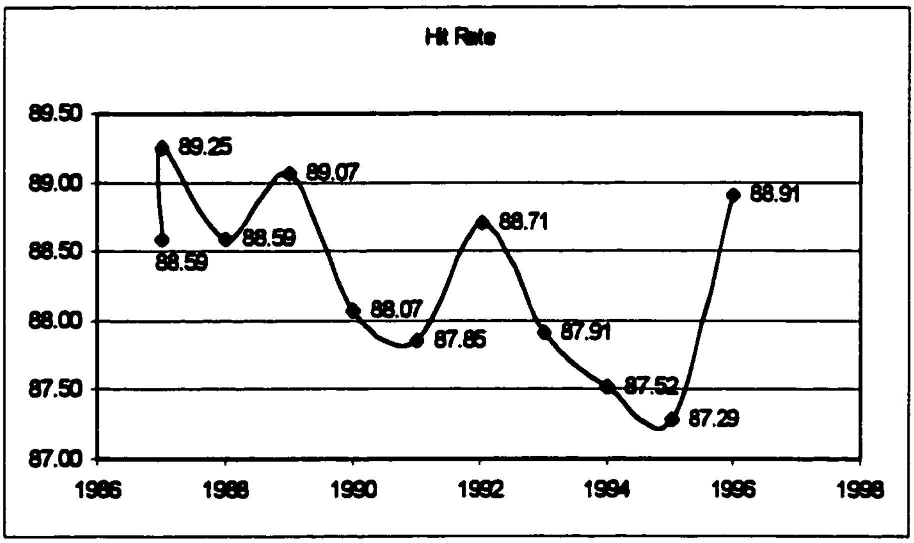


Figure: 3.8: General decline in geocoding hit rate.

The main focus of this research was to capture the spatial spillover effects in housing values in the model specification. In order to achieve this we employed a spatial lag variable that would quantify the influence of neighbouring properties on the value of a property. Detailed model specification was discussed in Chapter 2. The spatial autoregressive hedonic model was presented in equation 2.28.

$$P_{it} = \alpha + \rho \sum_j w_{ij} P_{j,t-m} + \sum_k \beta_k S_{ik} + \sum_l \gamma_l N_{ilt} + \xi_{it}$$

The correct specification of spatial lag variable is imperative for the statistical validity of the model. If specified correctly, the the spatial lag variable, w_{ij}, will accommodate spatial autocorrelation that exists in data. The spatial lag variable was defined in equation 2.29 and is repeated again for explanation.

$$\text{LAG\_VAR} = \sum_j [(1/d_{ij}) / \sum_j 1/d_{ij}]\, P_{j,t-m}$$

Where $m = 1, \ldots, 6$; $j = 1, 2, \ldots, N$; $d_{ij} <= 2$ km

We hypothesised that the value of a property at time, t, is influenced by the most recent sales of comparable properties in the vicinity of the concerned property, referred to as the anchor property. We also hypothesised that the spatial spillover effects do not extend beyond a 2-km radius of a property. In other words, housing values are not correlated if are separated by more than 2 kilometres. Note that this specification does not agree with the variogram estimation, discussed in Chapter 5. Variograms estimated for 1994 sales revealed that prices were correlated up to a distance of 10 km. Selecting previous sales within a 10-km radius of a property in the GTA, however, would include properties from different regions, let alone municipalities.

The average area of a CT in Toronto is about 6 square km. Assuming the shape of the CT to be a circle, yeilds a radius of 1.4-km. The large number of very small CTs in the high-density areas influence the average size of the CTs. Again, CTs in the suburban GTA are quite larger in size than the ones in high-density areas. This prompted us to choose a radius of at least 2-km, instead of 1.5-km.

The spatial lag variable was estimated for all properties. The algorithm searched for similar properties sold in the last six month within a 2-km radius of the anchor property, whose value is to be assessed. Once the properties were selected, their values were multiplied by the inverse of respective distance between the neighbouring properties and the anchor property. Thus, a property situated close to the anchor property would have a greater influence on its value than the property located further away.

The algorithm performs the following operations:

1. Selects all properties that fall within a radius of 2-km of the first record in data set.

2. Selects properties where number of days between the two sale dates is less than or equal to 180 days.

3. Finds the Euclidean distances [dij] between these properties and the first record.

4. Determines the inverse of distance [1/dij] for all selected properties.

5. Determines the sum of inverse of distance [Sum(1/dij)] for all properties.

6. Calculates $\mathbf{W_{ij}=(1/dij)/sum\ (1/dij)}$.

7. Calculates the sum of $W_i * P_{ij}$.

Consider the following example, where three properties satisfied the search criteria.

Table 3.7: Example for spatial lag calculations

Price Pj	Distance dij	1/dij	W=(1/dij)/sum(1/dij)	W*Pj
200,000	2	0.5	0.50/1.692=.296	59,200
250,000	1.9	.526	0.526/1.692=0.311	77,750
225,000	1.5	0.666	0.66/1.692=0.39	87,750

Avg. Price = 225,000 **Total= 1.692** **Total= $224,700**

The inverse of distance, d_{ij}, was divided by the sum of inverse of distance, to achieve row standardisation. It is obvious from Table 3.7 that the average price of the three properties, $225,000, is greater than the estimated spatial lag variable. The difference in the two values is due to distance correction applied in the calculation of spatial lag variable.

This spatial lag variable was calculated for the entire 325,000 properties in the data set. These calculations are very computationally intensive. For example, in downtown Toronto, more than 500 properties satisfied the search criteria for individual anchor properties. These computations required months of computing time. Earlier attempts to perform these calculations in a GIS environment revealed that it would take more than 45 days of computer time on a Pentium 133 MHz computer with 16 MB RAM. In order to expedite these calculations, a computer programme was coded in Gawk, a Unix-based computer language whose computational abilities were quite superior to the GIS-based computer languages. The computations were performed on a Pentium II 450 MMX computer, with 140 Megabytes of RAM. Even with this very fast computer, it took days to process the data.

CHAPTER 4

DESCRIPTIVE ANALYSES

A detailed spatio-temporal analysis was conducted on the data sets, which provided the intuitive base for spatial autoregressive models discussed in the next chapter. This analyses has been divided into following four sections:

1) A long run analysis of house price appreciation and socio-economic variables from 1987 to 1995.

2) A detailed spatial analyses of 1986 quinquennial census, using the CT-level data set.

3) Spatial Analysis of TREB's freehold sales data from 1987-1995

4) Descriptive analyses of freehold sales data for 1995

LONG RUN PRICE ANALYSES OF FREEHOLD DATA, 1987-1995

The TREB data set consisted of 325,000 single-family dwelling (freehold) transactions in the Greater Toronto Area between 1987 and 1995. During this period, the real estate market crashed in 1989. In this section, a brief temporal analysis of the house price appreciation is presented. Figure 4.1 presents the average daily sales price between 1987 and 1995.

Housing values continued to rise during 1987. After a brief drop in average daily housing values, the upward trend continued from the third quarter of 1987 to April 1989, when the average daily house price reached $300,000. Real estate values started to fall in the fourth quarter of 1989. The decline in prices continued till 1992, when the average daily housing prices fell below $250,000. Between May 1992 and May 1993, residential real estate market became much focussed as the daily average price fluctuated in a very tight interval, indicating a recovery. Price started to fluctuate more from the third quarter in 1993. However, the average daily sale price generally remained below $225,000 until the end of the study period in December 1995. Between 1993 and 1995, occasionally average daily sale price reached over $300,000, yet during the same period, average daily sale price plummeted to less than $100,000 on other occasions. It could be deduced from Figure 4.1, that until 1995, six years after the price first started to fall, the real estate market in the GTA exhibited neither stability nor the heights it reached earlier before 1989.

As the real estate market enters troubled waters, the average daily sales price oscillates between very low and very high values. This phenomenon is absent during a bull market, when the housing prices are rising, or in a recovering market where prices are stabilised. When real estate prices decline, the average daily price fluctuates between extreme values. A troubled real estate market could be identified by detecting fluctuations in daily average prices.

If the average daily sales price is plotted along with the daily maximum sale price, the graph explicitly describes various market conditions. In Figure 4.2, maximum daily price is presented by grey squares, while the average daily price is presented by black squares. As the residential real estate prices climbed between 1987 and 1989, the spread between the average daily sale price and the daily maximum price is explicitly evident. In addition, the upward rising trend is visible in both average and maximum prices. During the boom period, daily maximum price seldom approached daily average price. However, with the decline in real estate market, maximum daily sales prices approached average daily sales prices. Between December 1989 and March 1992 daily maximum prices overlapped average daily sale prices (Figure-4.2). In a declining real estate market, the selling activity focuses on low-price housing units. While residential real estate market crashed, it brought down the maximum daily price closer to the average daily sales price.

Another indicator of market behaviour is the number of sales per day. A close look at figure 4.3 reveals that the number of sales / day dropped to less than 25 sales during December 1989 and March 1992. During the same period, daily maximum sale price approached average daily sale price. While the real estate values climbed between 1988 and 1990, the number of sales per day declined during the same period. This indicates that relatively fewer, yet high-valued properties were sold during that period. Between March 1992 and April 1993, number of sales / day stayed above 50 for most days. However, May 1993 to December 1995, no of sales per day plummeted again below 25 on several occasions, indicating a weak real estate market. It was also observed that the maximum number of transactions happen between March and April.

While the real estate prices peaked between 1985 and 1989, developers realised the potential of making quick money and added large numbers of new residential properties in Ontario (figure 4.4). In 1989, investment in new housing projects (SFD) was worth over $8 billion. Similarly, $2.2 billion were invested in condominium/ apartment building construction in 1989. With the rise in interest rates during 1990, the credit crunch, among others, forced developers out of the construction market. Investment in new housing dropped from a peak of $8 billion in 1989 to $4 billion in 1992. Even though the mortgage rates (and so were the interest rates) during 1992-93 were at an all time low of 7% (Figure 4.5), the investment in new housing continued to decline. This observation is significant since it shows that the supply of new housing is not entirely tied to the availability of credit, yet there are other demand and supply factors that influence the new housing market.

The real disposable income levels perhaps could best define the purchasing power of consumers. Since 1940, the real disposable income levels in Ontario increased steadily until 1991. From 1991 onwards, disposable income stayed at $18,000 level (Figure 4.6). At the same time, the unemployment rate in Toronto tripled from 4% in 1989 to 12% in 1992. Unemployment rate in Toronto dropped later to 8%, almost twice as that in 1980s. The demand for housing in Toronto probably suffered from the falling income levels and growing job uncertainty.[1] Despite low mortgage rates, real estate market did not truly recover, since consumers were stuck with stagnant income levels and high unemployment in a market that experienced abundant supply of new housing with no real increase in demand.

[1] Figures 4.4 to 4.7 are based on data extracted from CANSIM database.

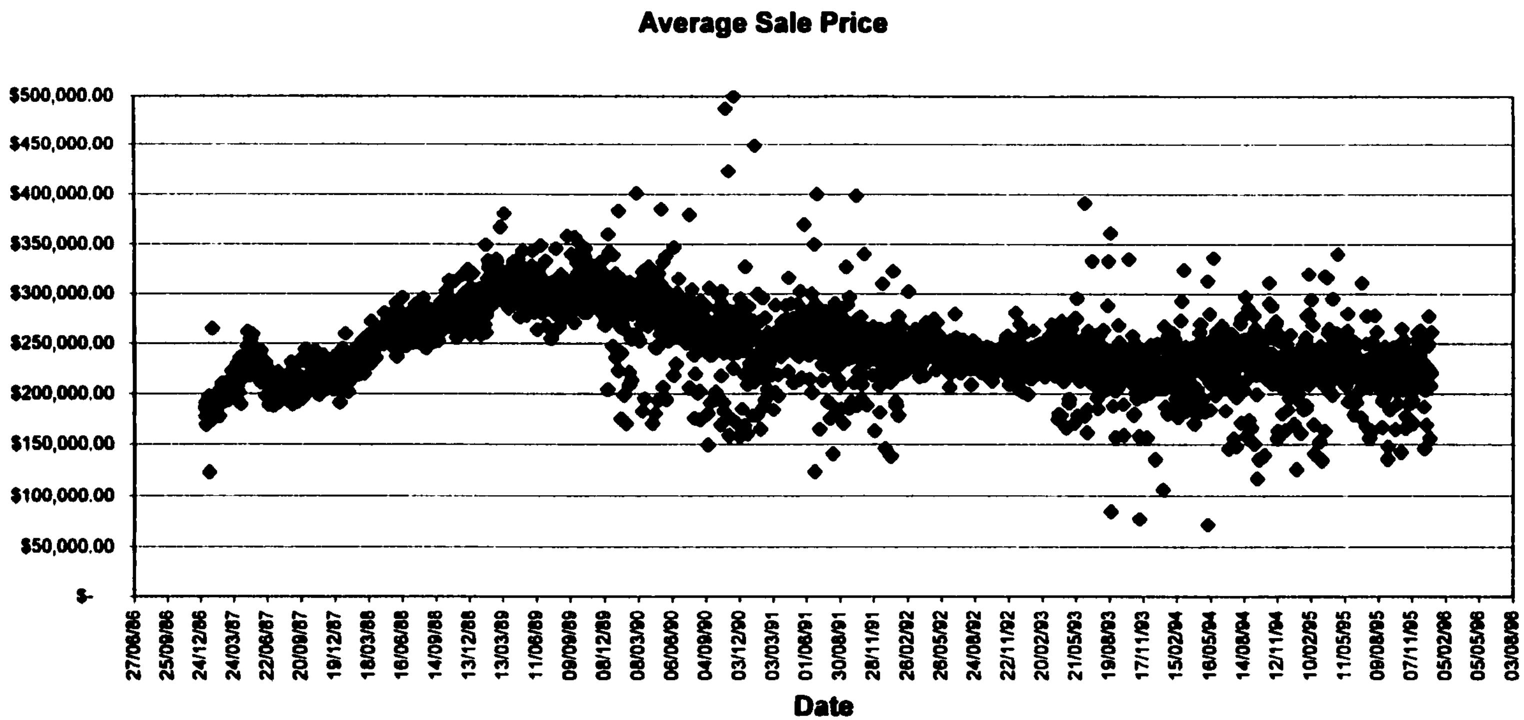


Figure 4.1: Daily Average Sale Price of freehold properties in the GTA, 1987-95

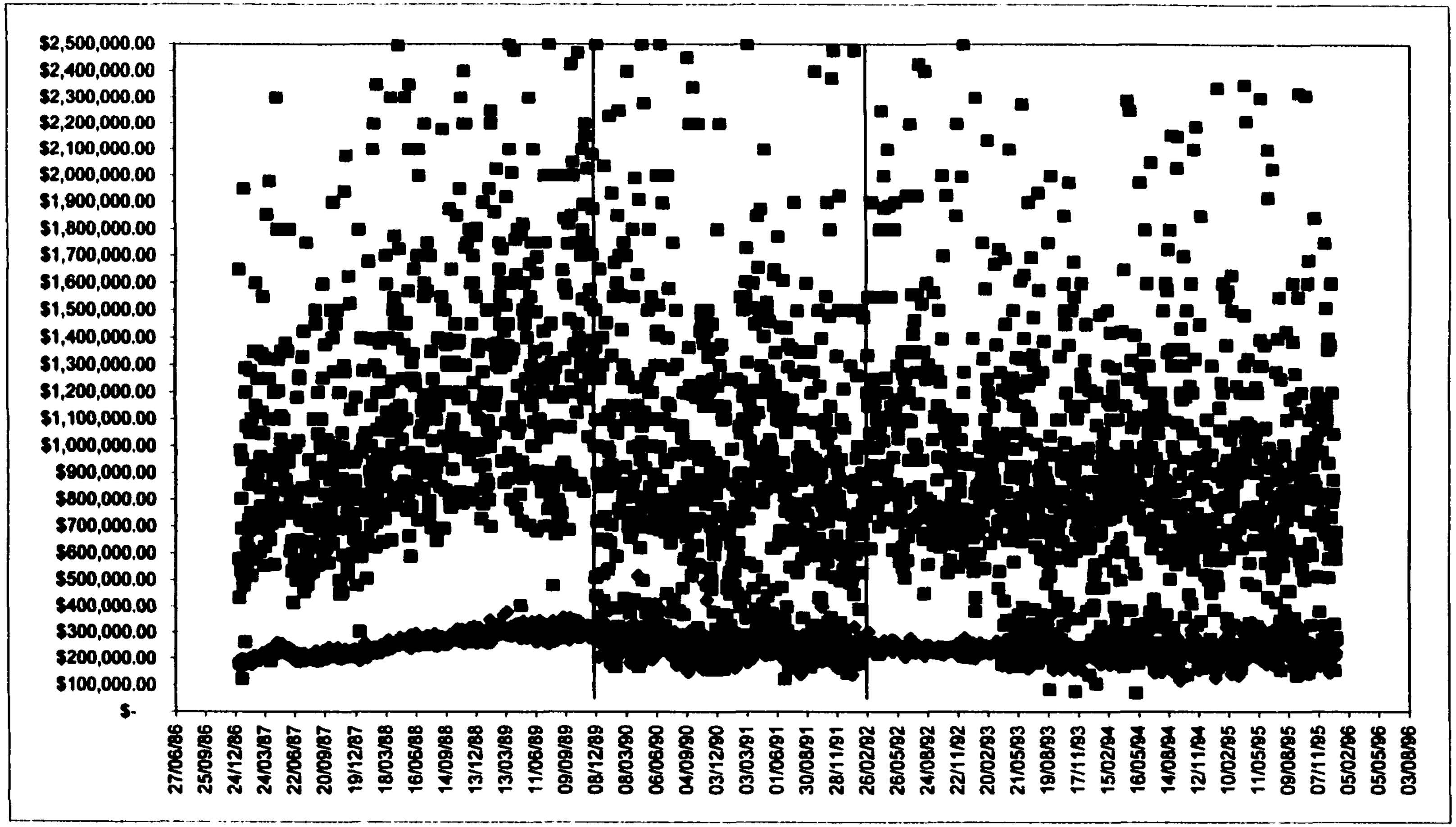


Figure 4.2: Daily Average/Maximum Sale Price of freehold properties in the GTA, 1987-95

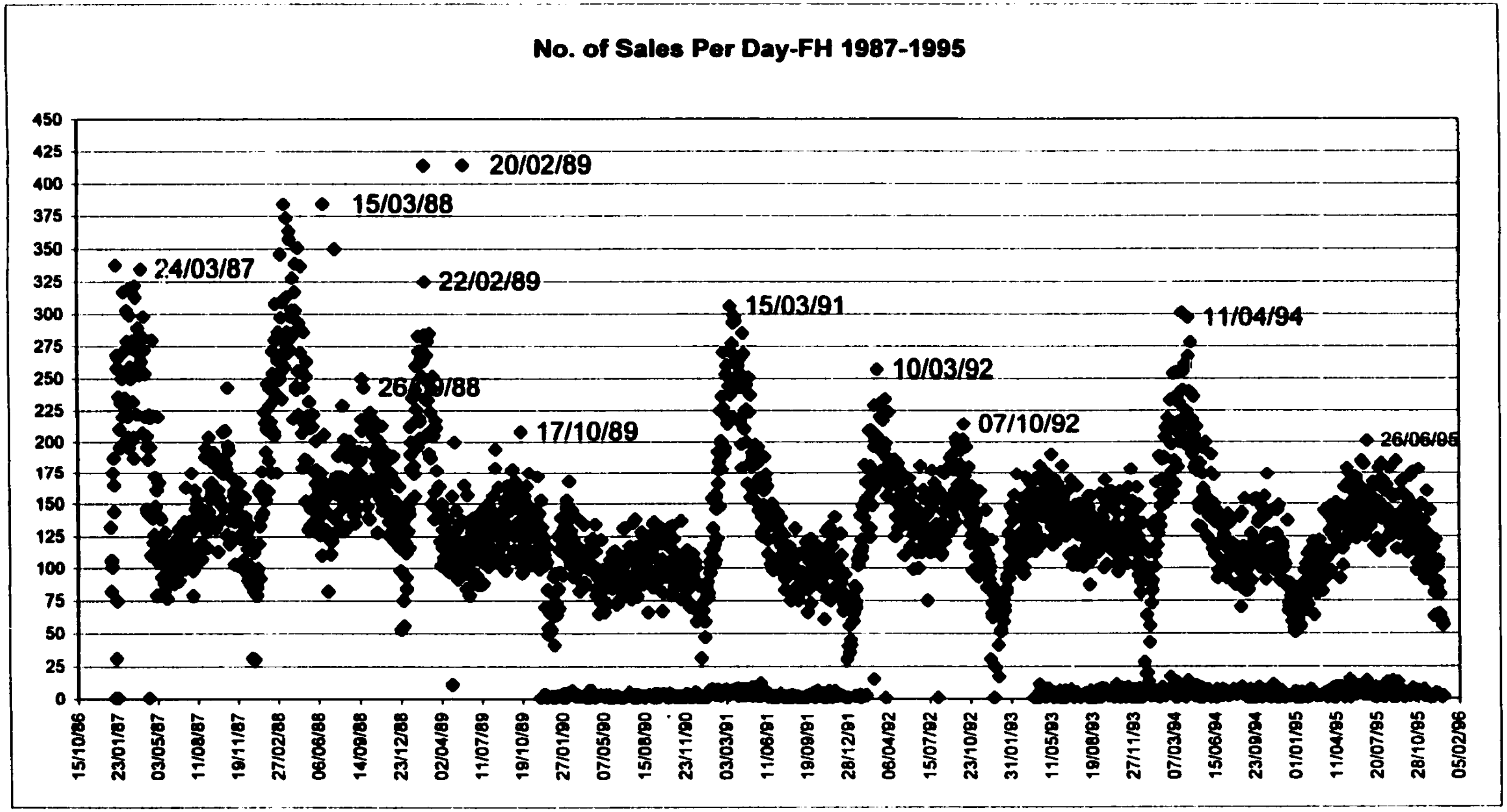


Figure 4.3: Daily Number of sales of freehold properties in the GTA, 1987-95

Figure 4.4: Housing Supply (ON)

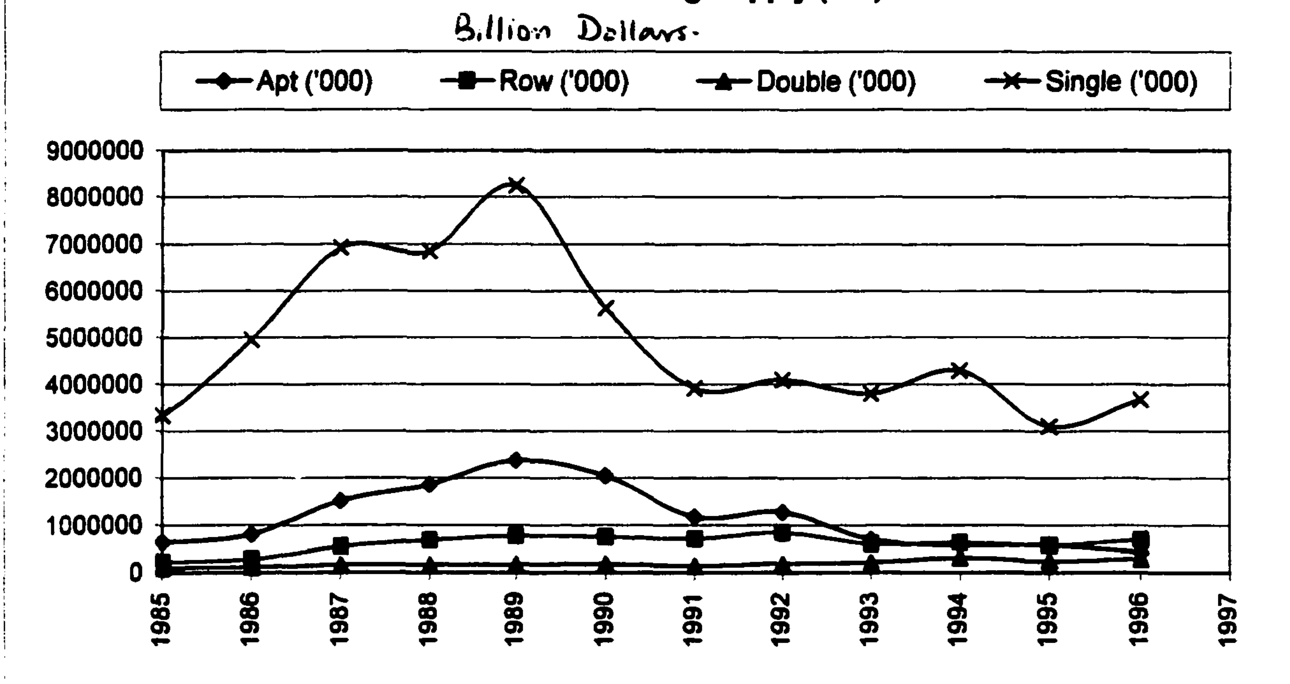


Figure 4.5: Mortgage Rates

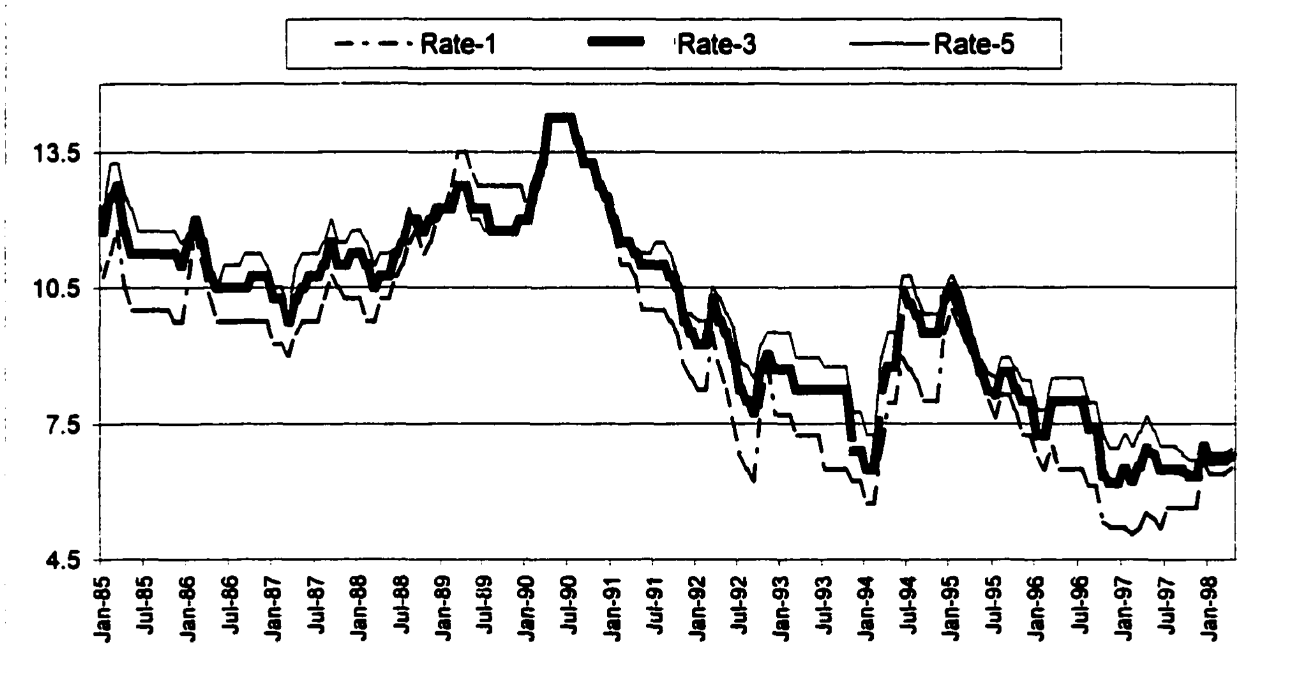


Figure 4.6: Personal Disposable Income-ON

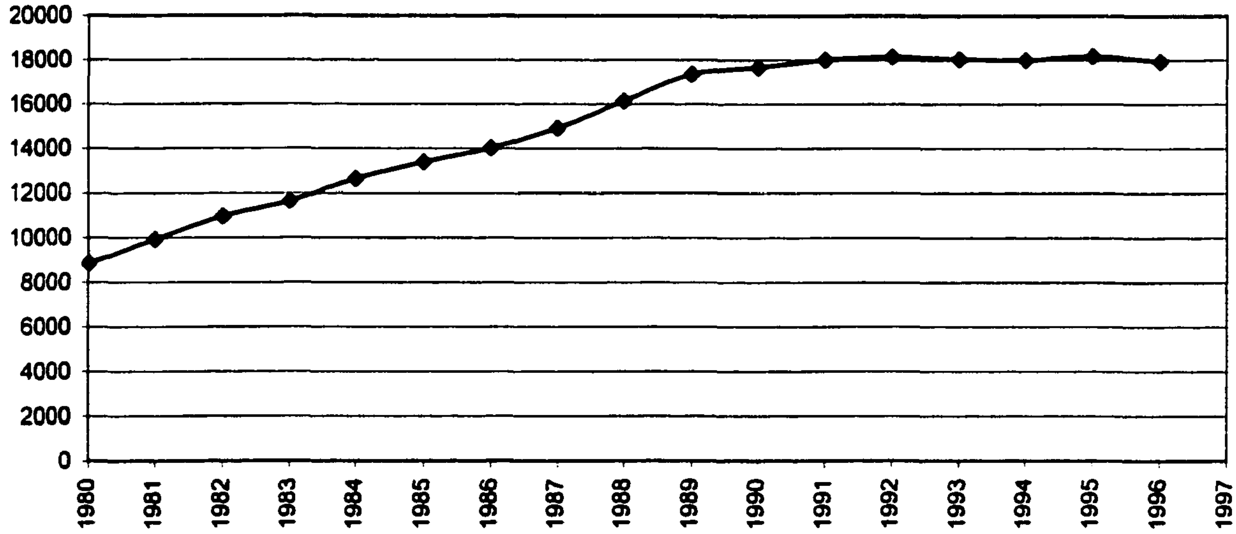
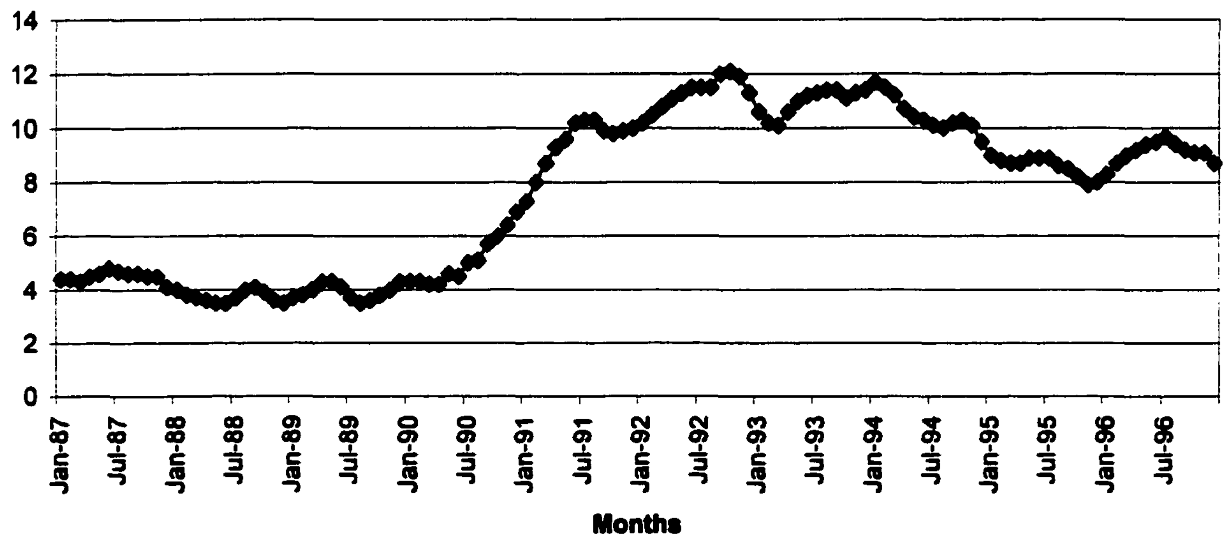


Figure 4.7: Unemployment Rate (TO)



The population density map for the GTA reveals that suburban Toronto — with few exceptions, such as Brampton —is characterised by low-density neighbourhoods (Figure 4.8). High-density neighbourhoods are concentrated within Metro Toronto. Population density declines with distance from downtown Toronto. Within Metro Toronto, suburban areas, such as North York and Scarborough could be characterised as medium-density neighbourhoods. From Figure 4.8 it could be seen that high-density downtown neighbourhoods have a population density of over 25000-persons/ square km. The number of observations recorded for each range is reported within parenthesis in legend. Suburban areas of Metro Toronto report population density between 8500-persons/ square km and 25800-persons/ square km. Thinly populated suburban GTA, outside of Metro Toronto, could be recognised by very low population densities of less than 1800-persons/ square km.

Through out this research it has been argued that housing values vary within a metropolitan area. Figure 4.9 explicitly displays the spatial distribution of housing values reported in 1986 Census data. Well-off neighbourhoods within GTA could be identified with darker shades where the average housing values varied between $275,000 and $767,000.[2] Forest Hill and other affluent neighbourhoods along Yonge Street reflect high housing values, along with the similar neighbourhoods in Etobicoke and Oakville. Housing units are larger in size in suburban areas, and hence property values, being a function of housing size, are also higher in suburbs. High property values are observed along Yonge Street. As one moves away from Yonge Street, property values decline to rise again for the larger, suburban properties. Downtown Toronto neighbourhoods that do not lie adjacent to Yonge Street indicate low housing values. Property values along Bloor-Danforth subway line indicate presence of low- to medium-priced housing. Proximity to Yonge Street subway line adds more value to properties

[2] Thematic maps were created in Mapinfo using the natural break algorithm. This algorithm attempts to create ranges so that the values within the range are very close to the average value of the range. Thematic Maps were not changed to create the desired visual impact by specifying customised ranges.

than the proximity to Bloor-Danforth subway line. While Yonge Street is characterised by high-value residential properties, Bloor-Danforth Streets do not show such a trend.

Spatial distribution of average household income in the CT-level map is almost identical to the spatial distribution of housing values in the GTA. High-value properties are situated in CTs with high average household income (Figure 4.10). Again, there is a concentration of high-income households along Yonge Street. High-income neighbourhoods could also be seen in Etobicoke, and Richmond Hill.

Former City of Toronto forms the oldest neighbourhood in the GTA. A thematic map showing the spatial distribution of residential properties built before 1920 indicates that within Metropolitan Toronto old residential properties were exclusively located in City of Toronto (Figure 4.11). A comparison of Figure 4.11 and Figure 4.9 indicates that lower housing values in the downtown core could be attributed to the old age of these properties. Older properties were also found in low-density suburban areas.

Average persons per room could serve as a proxy for low-income neighbourhoods. Figure 4.12 depict the U-shaped cluster of CTs with 0.6 to 0.8 persons per room around Yonge Street. Affluent neighbourhoods reported between 0.29 to 0.5 persons per room. Suburban GTA, such as Scarborough, and north-west part of North York also reported higher number of persons/ room. The spatially varying socio-economic profile of the GTA could also be judged from the spatial distribution of unemployment rate (Figure 4.13). Neighbourhoods situated to the west of former City of Toronto are plagued with very high unemployment rates. Similar trends are noticeable for neighbourhoods in the south-east part of the City of Toronto. Low-density suburban areas have the lowest unemployment within the GTA.

Educational attainment is strongly correlated with employment and income distributions in the GTA. CTs with more than 30% of inhabitants with a university degree fall within neighbourhoods with high average household income. University educated individuals cluster along Yonge Street (Figure 4.14). Low-income CTs also fall within neighbourhoods with higher concentration of individuals who did not finish high school (Figure 4.15). So far we have seen that low-income households live in low-value housing in congested environments and the fact that unemployment is high in such neighbourhoods and education levels are very low.

CTs with highest income levels, high property values, and highest percentage of university graduates have another common denominator. These neighbourhoods have the highest percentage of households with no children at home (Figure 4.16). Etobicoke is another town with a high percentage of "children-free" households. Yet another striking feature of affluent CTs is the strong presence of older residents, 59 years and over (Figure 4.17).

CTs characterised by low- to medium-household income levels have high single (15+) population. The downtown core bodes a fairly large percentage of single population, while the suburban areas are predominantly "non-singles" who could be married or in a common law relationship (Figure 4.18).

Similar spatial trends were exhibited by 1991 Census data. Since the spatial relationships remained the same for 1991 Census, hence thematic maps for 1991 census are not shown.

Descriptive analysis of 1986 and 1991 Census variables is presented in Tables I and II respectively in Appendix A.

Figure 4.8: Population Density by Census Tract in the GTA, 1986 Census Data

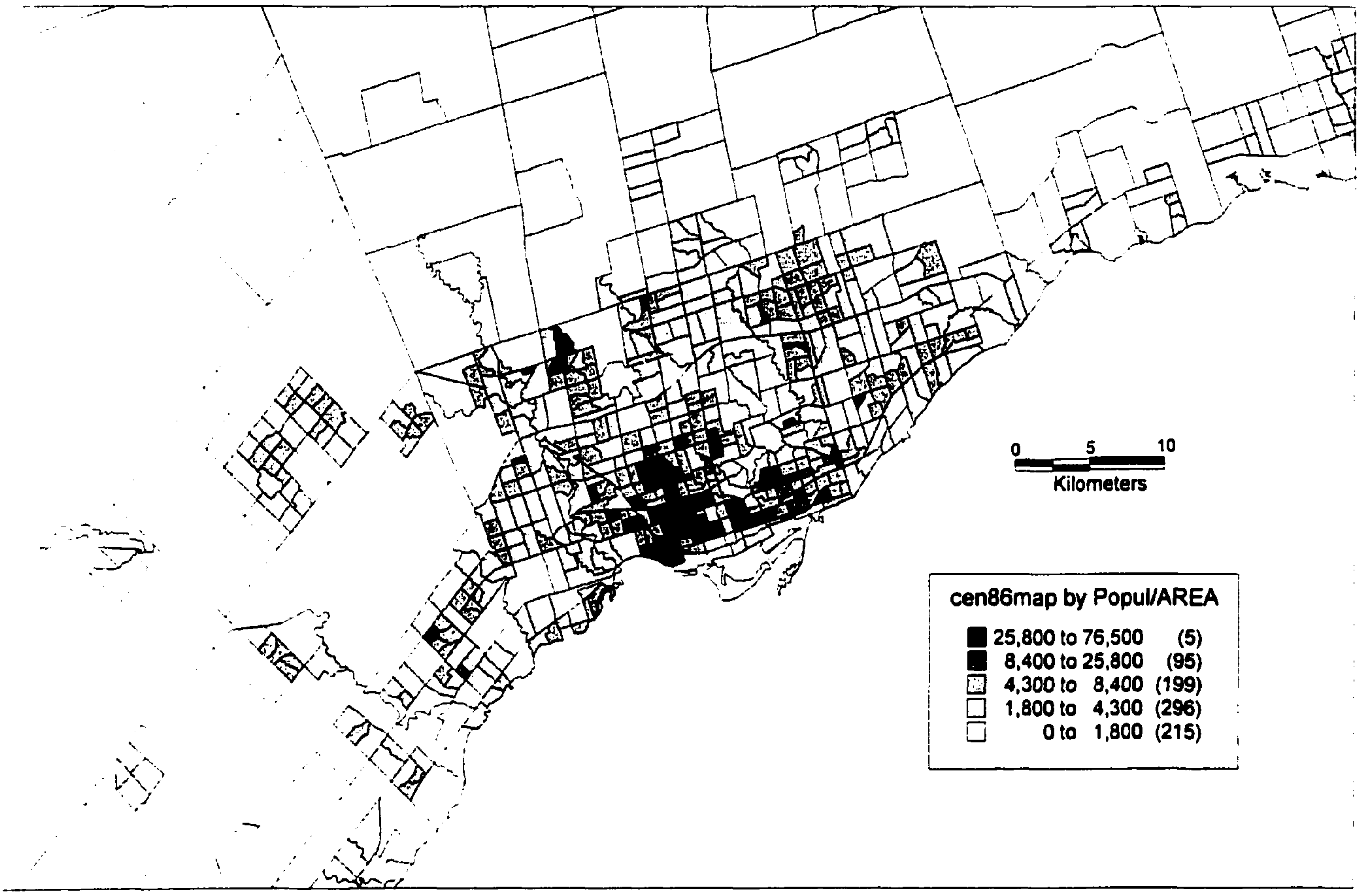


Figure 4.9: Average Price of Residential Properties in the GTA, 1986 Census Data

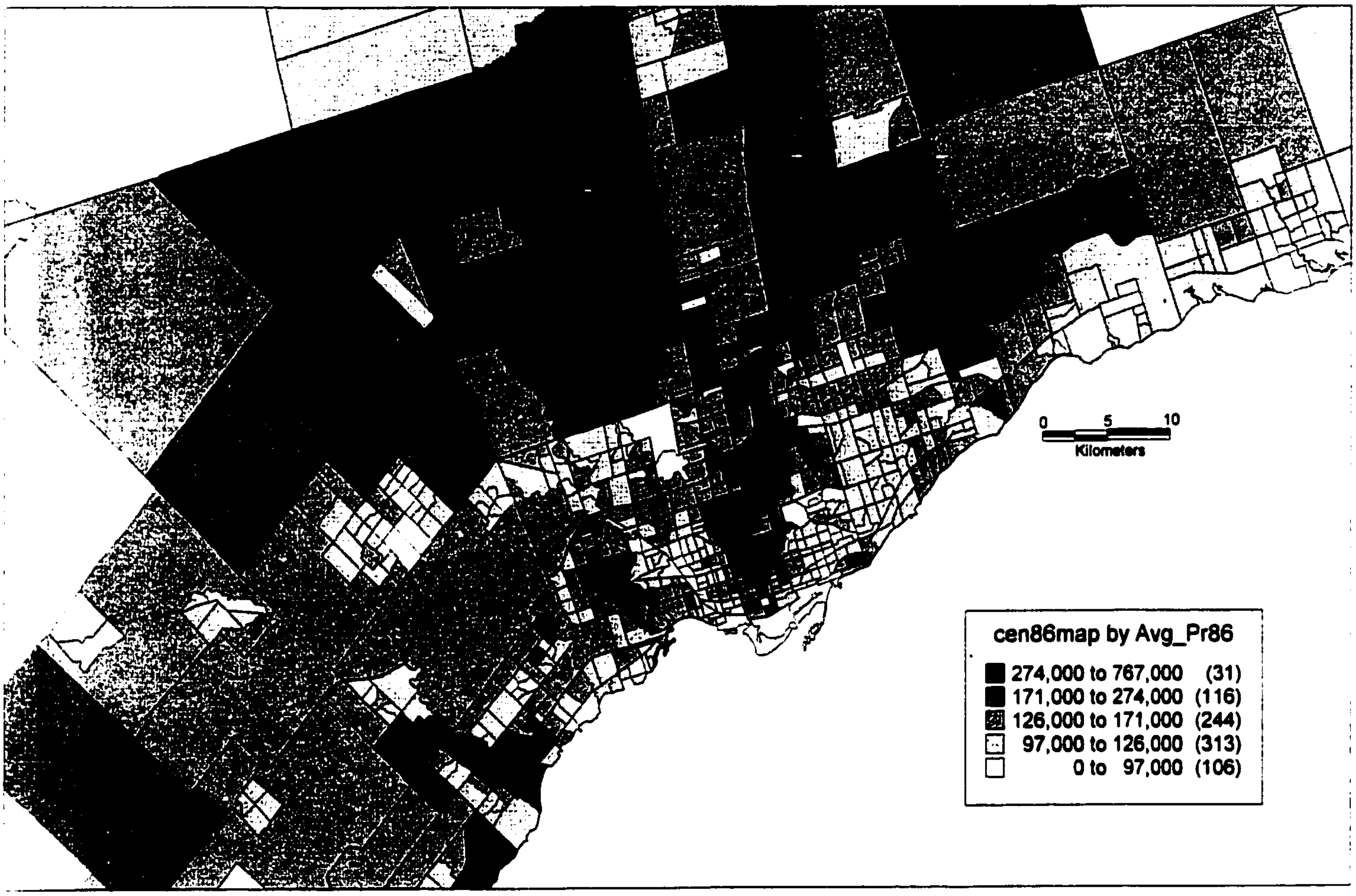


Figure 4.10:

Spatial Distribution of Average Household Income in the GTA, 1986 Census Data

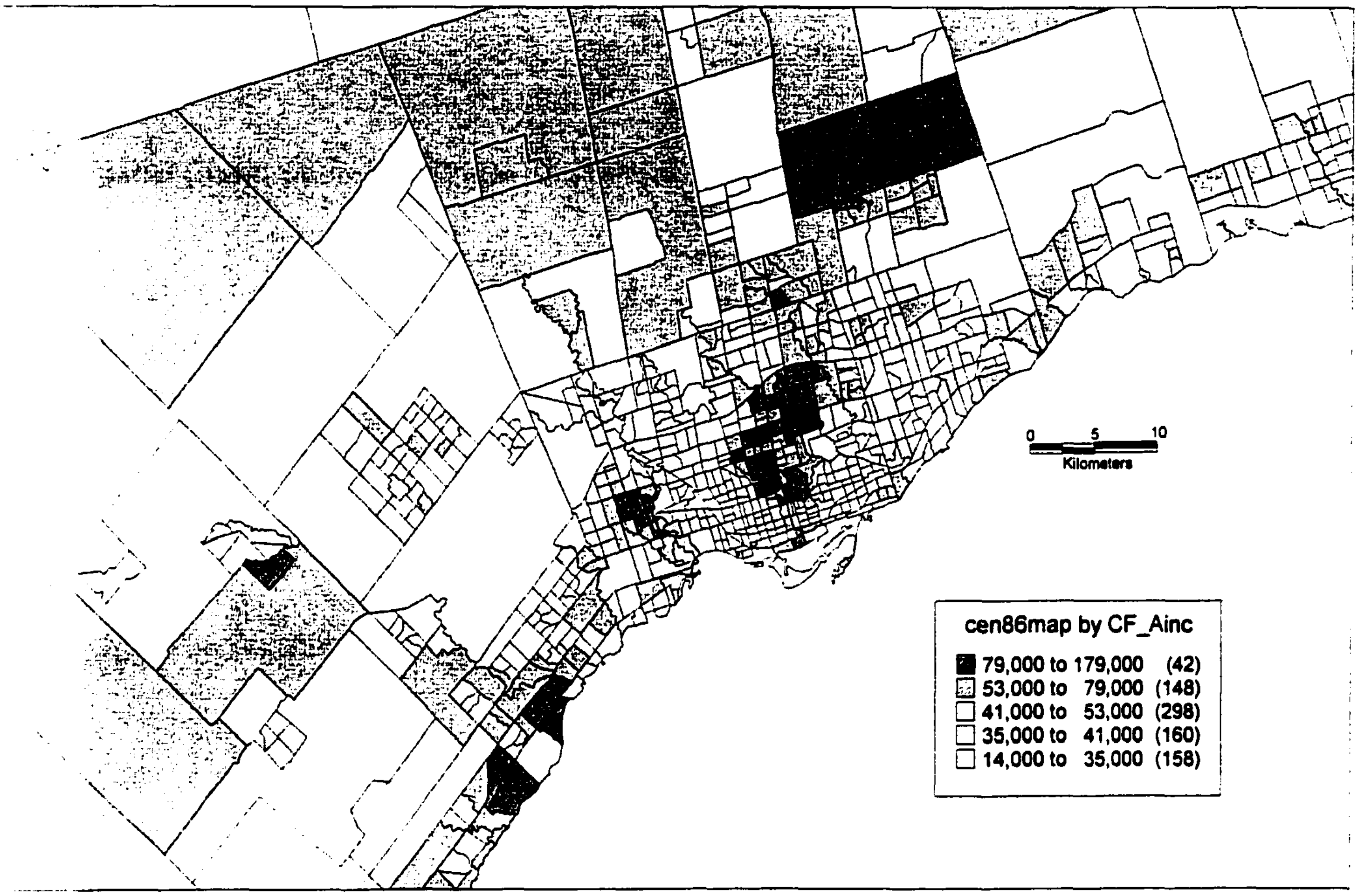


Figure 4.11:

Spatial Distribution of Residential Properties Constructed Before 1920, 1986 Census Data

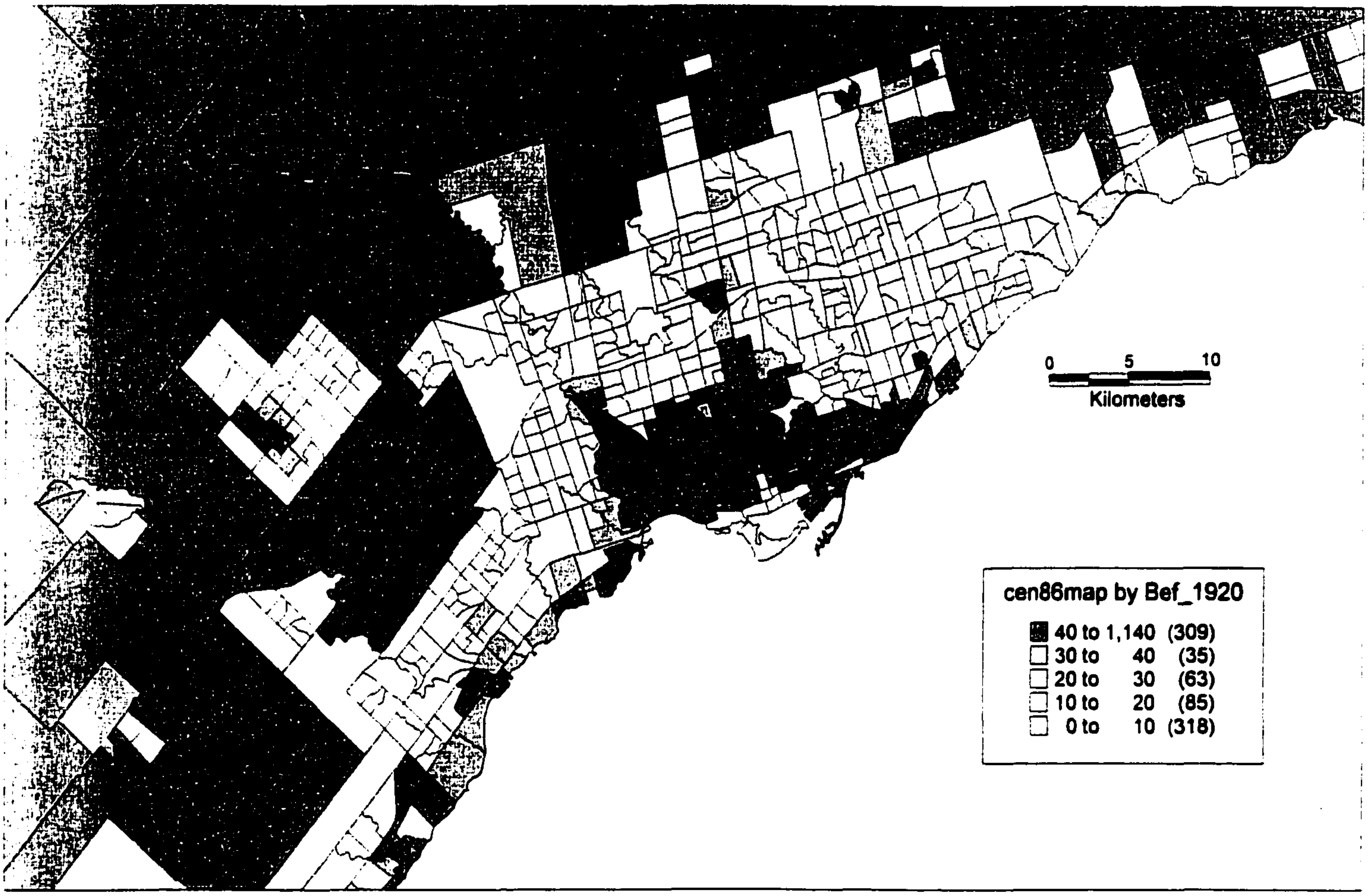


Figure 4.12: Average Persons Per Room in the GTA, 1986 Census Data

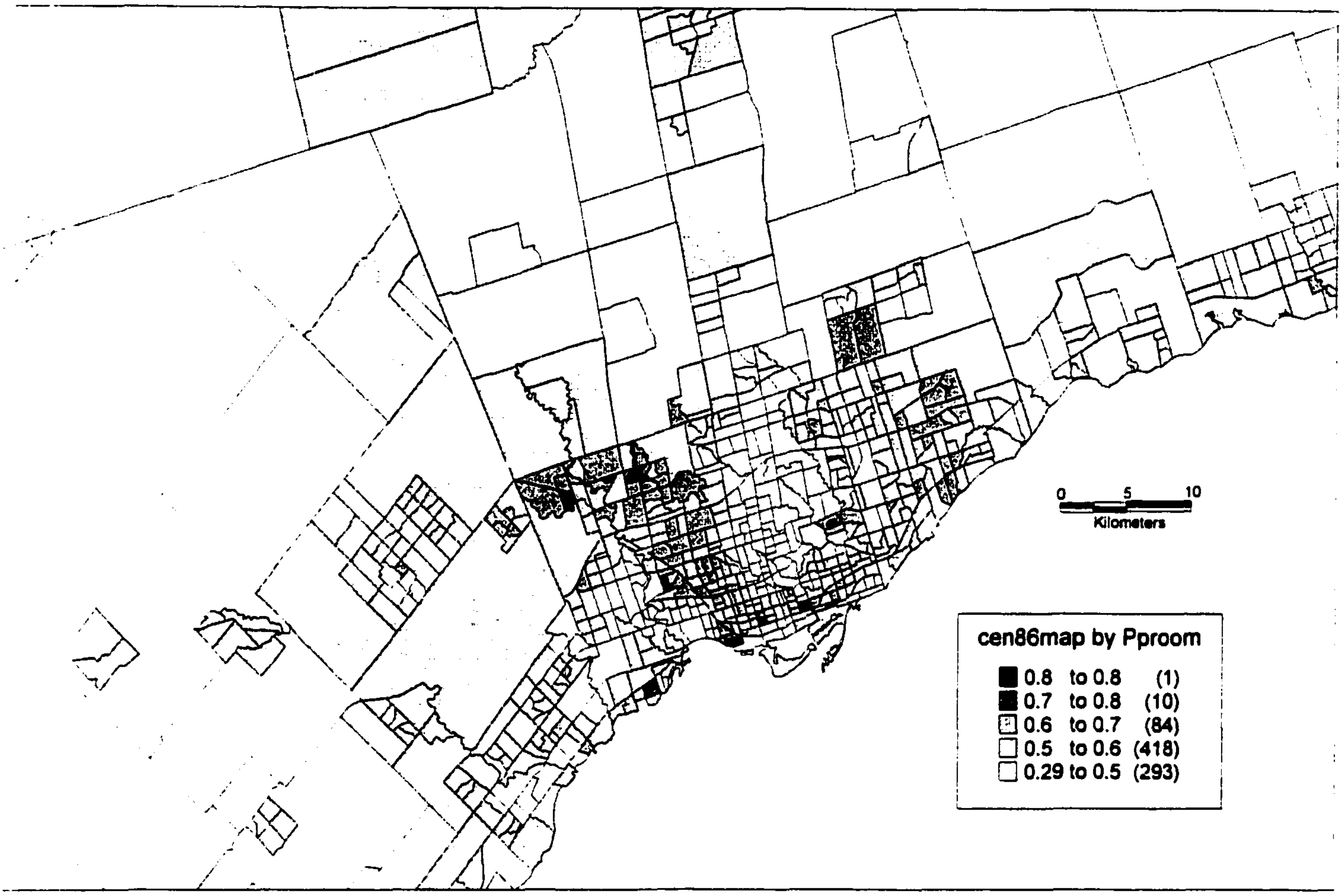


Figure 4.13:

Spatial Distribution of Unemployment Rate in the GTA, 1986 Census Data

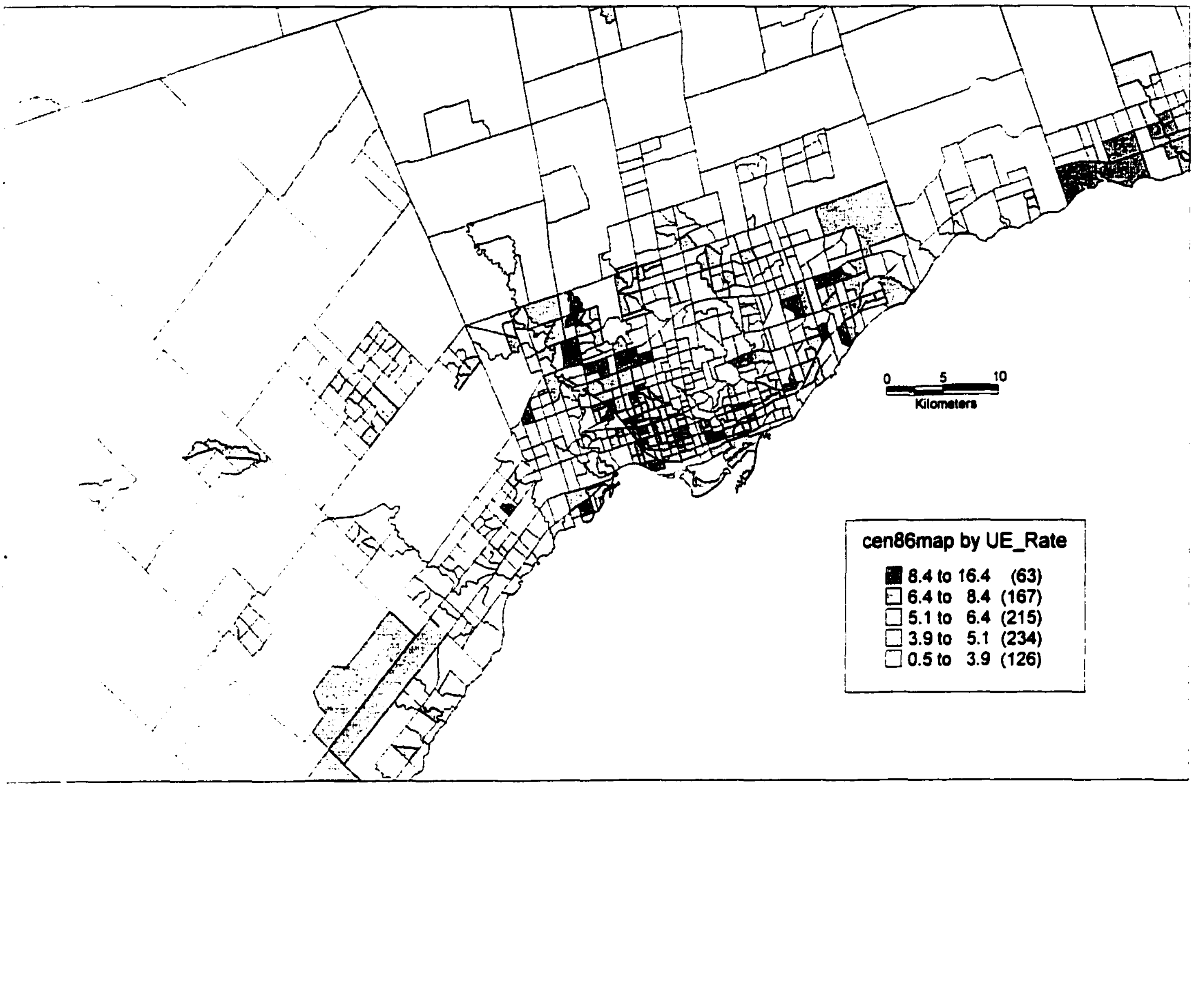


Figure 4.14: Spatial Distribution of University Educated Population, 1986 Census Data

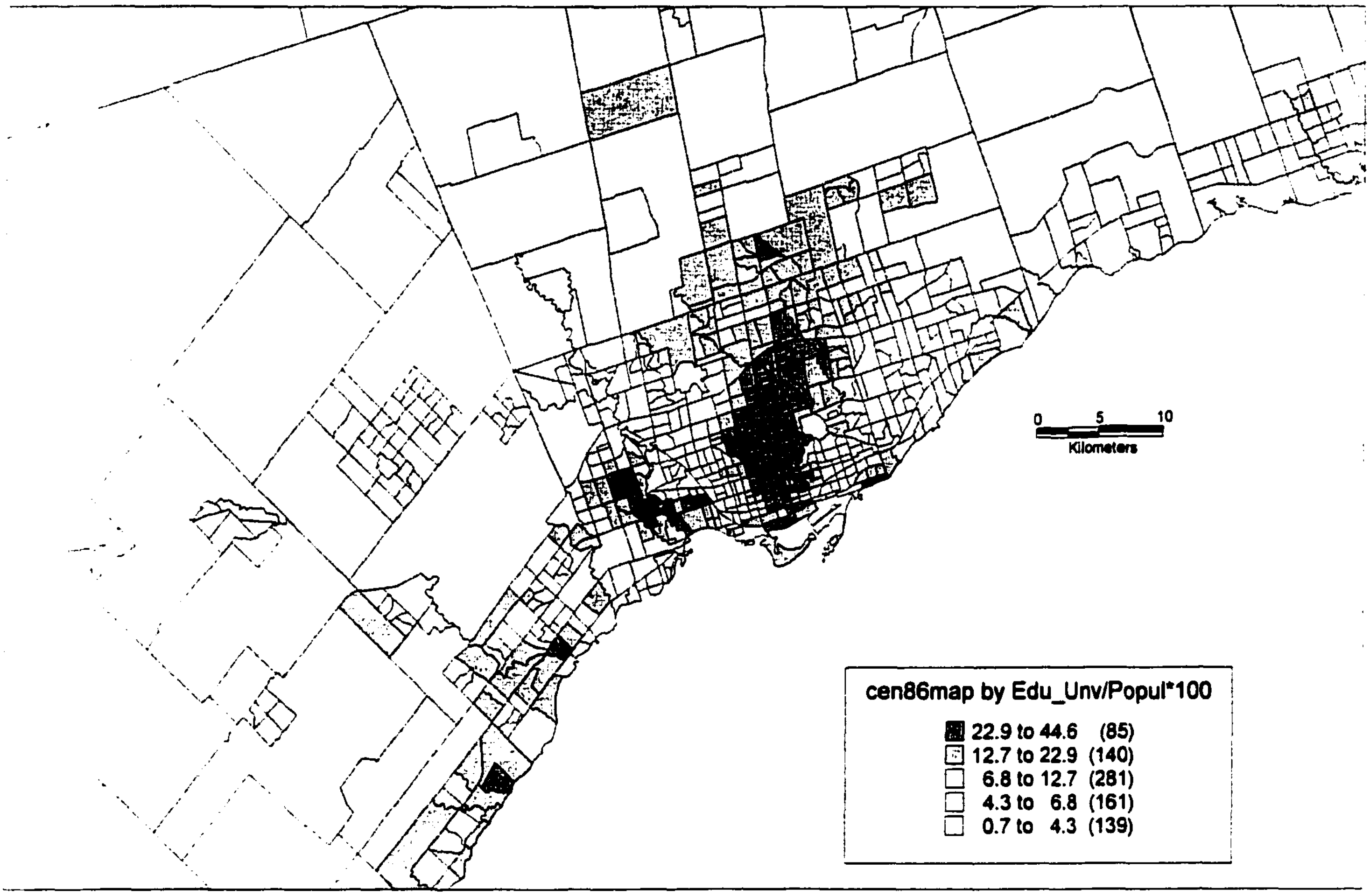


Figure 4.15:

Spatial Distribution of Individuals with Less Than Grade-9 Education, 1986 Census Data

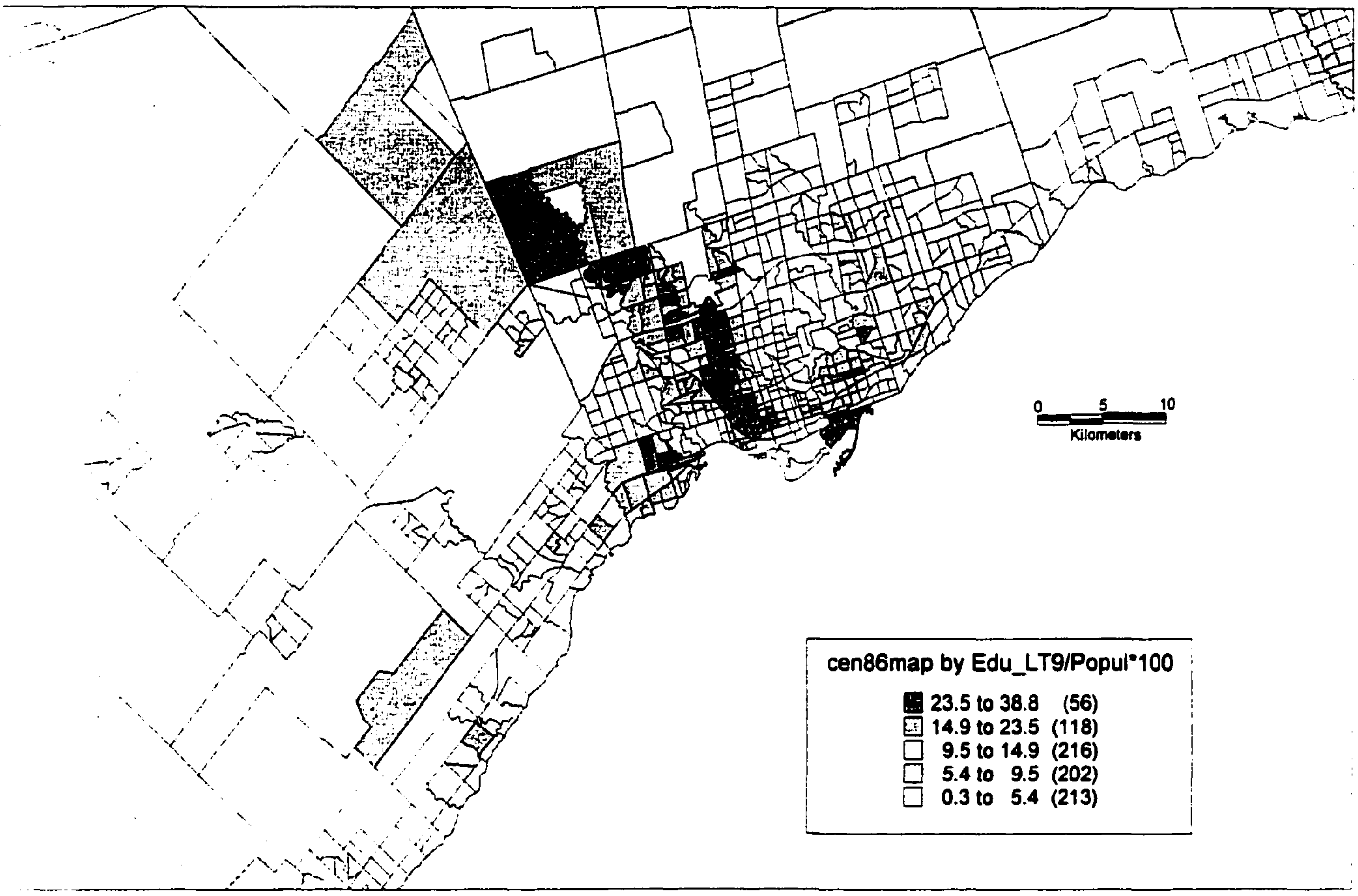


Figure 4.16: Percentage of Famlies With No Children at Home, 1986 Census Data

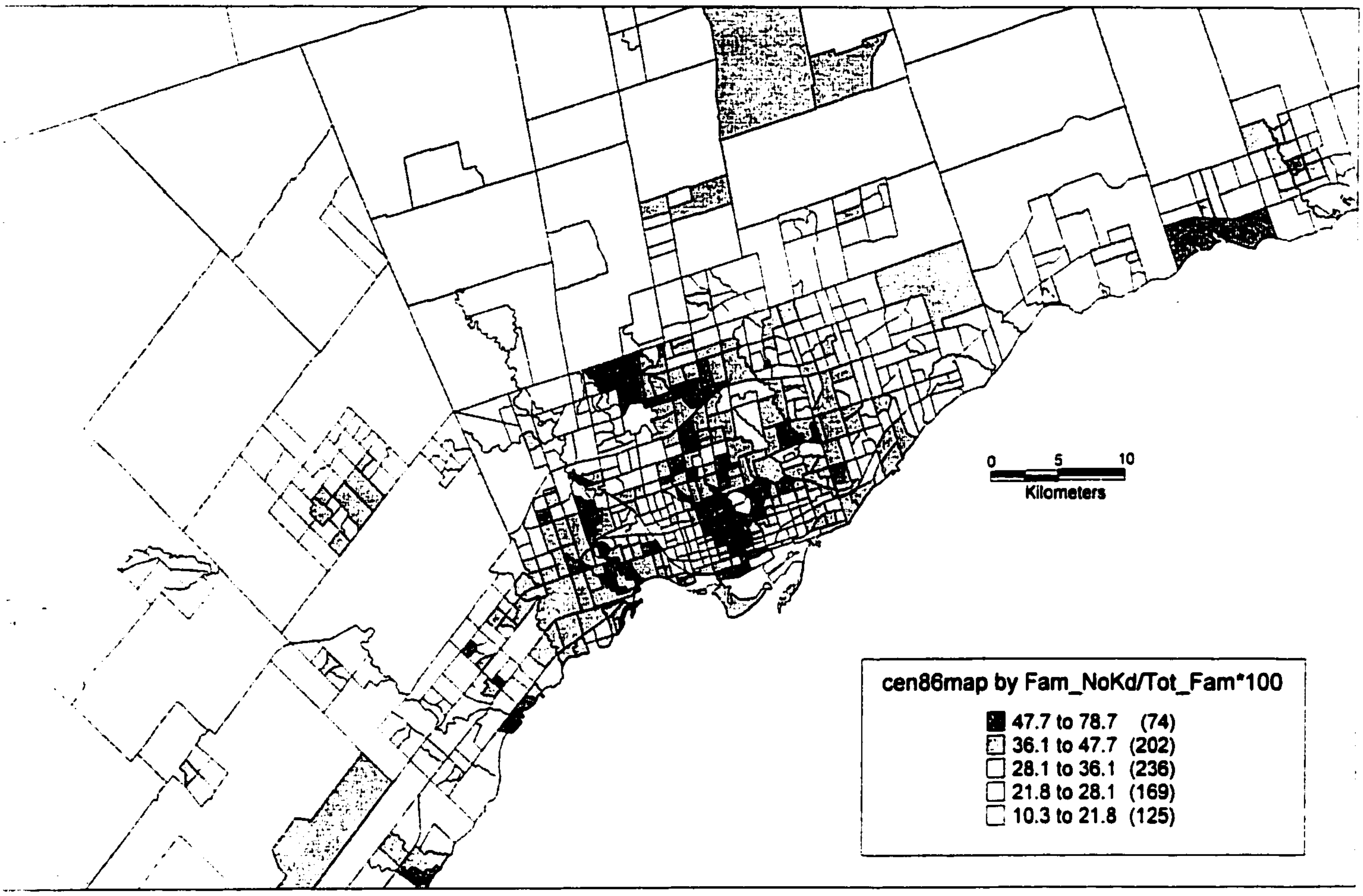


Figure 4.17: Distribution of Senior Population in the GTA, 1986 Census Data

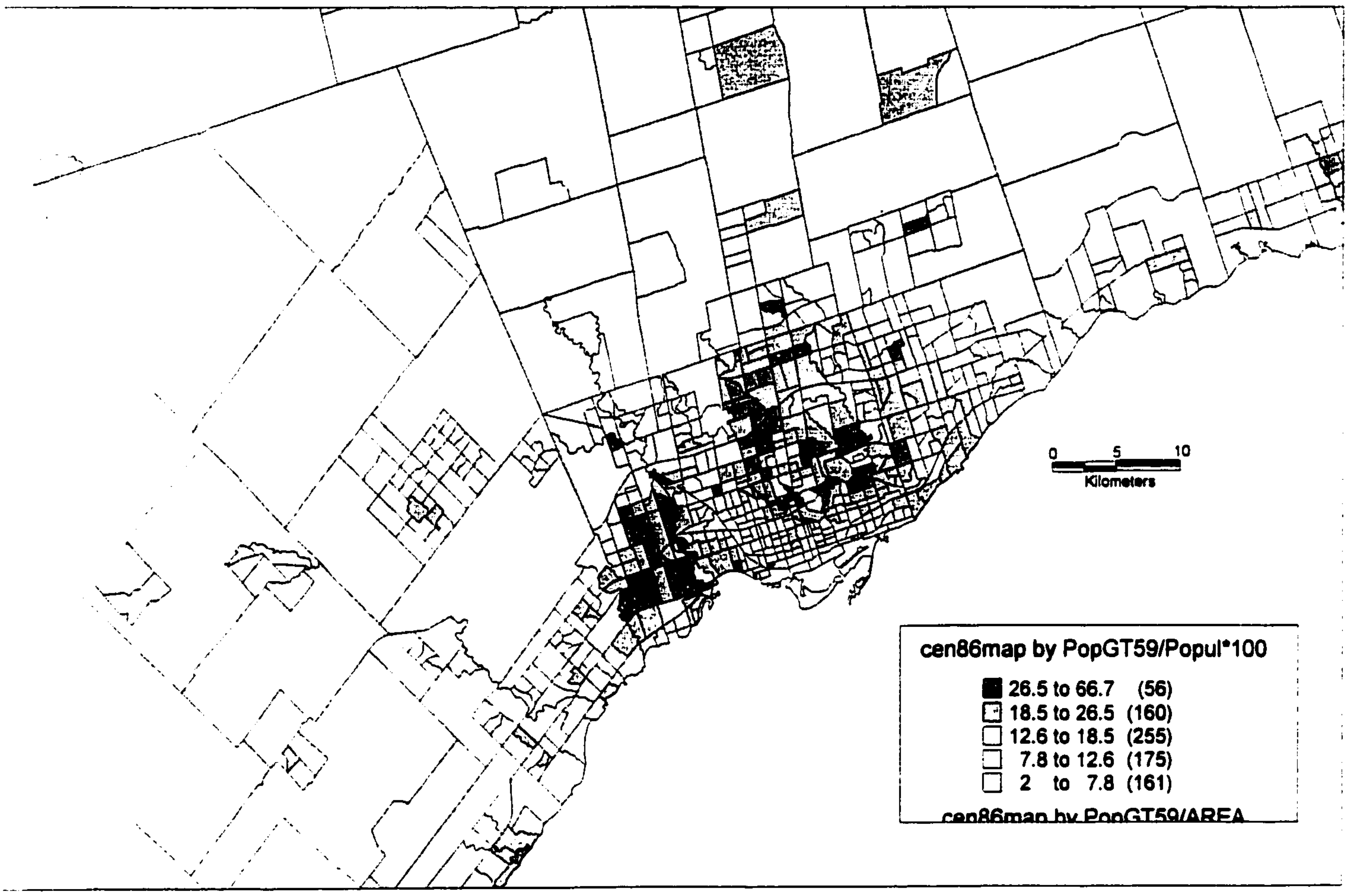
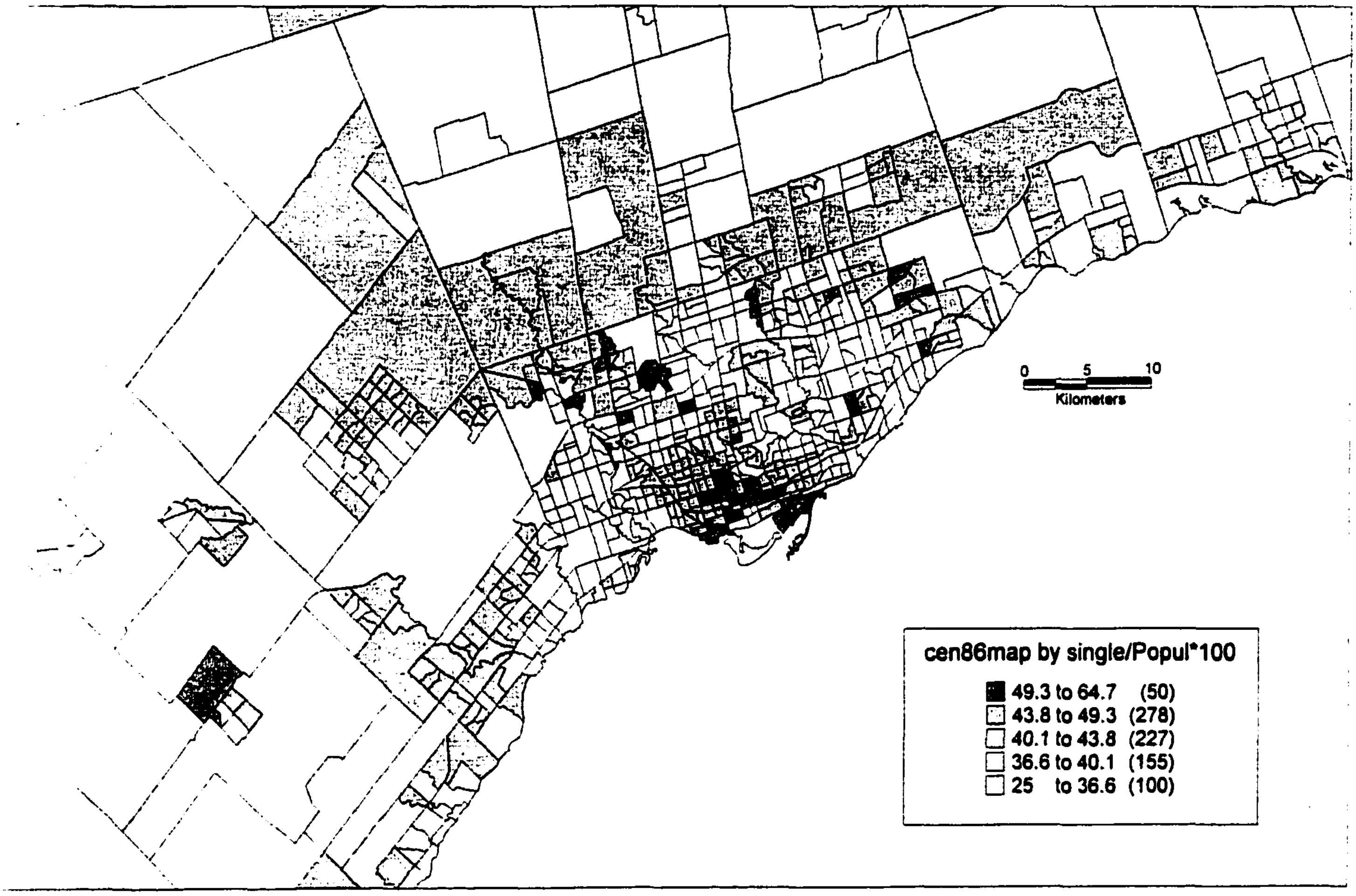


Figure 4.18: Percentage of Unmarried Population, 1986 Census Data



A detailed spatio-temporal analysis was performed on TREB's real estate data set. Results from other spatial analysis are reported in Appendix B.

Figure 4.19 presents the spatial distribution of property values sold during 1987. The most active segment of the market could be observed from the legend, where 17,500 properties were sold for $140,00 to $200,000. 764 properties worth over 0.5 million dollars were sold during the same year. Each (+) sign presents the geocoded location of the property and its shade indicates the price range it belongs to. High-value properties could be recognised from the dark shade, as they are located along Yonge Street. Some high-value properties were also sold in Uxbridge, Etobicoke, and Oakville. Similar maps generated for 1990 (Figure 4.20) and 1995 (Figure 4.21) revealed similar spatial distribution of property values. However, the differences could be observed from the number of properties belonging to each range. As the real estate market went downhill in 1989-90, Figure 4.20 reveals that the number of sales declined. However, more high-value properties (0.5 million and above) were sold in 1990 than in 1987.

Figure 4.22 to 4.30 present spatial distributions of CT-level average property values. Ranges mentioned in the legend refer to average sales price in the CTs, while value enclosed within parentheses refer to the number of CTs that fall within that range. These thematic maps reveal the spatial dependence in property values and at the same time serve as a five-bin histogram of sale prices. Spatial pattern of property values did not change from 1987 to 1995. However, different types of properties became active during the study period. As the property values climbed to all time high in early 1989, Figure 4.24 reveals that 350 CTs reported average price between $240,000 and $370,000. While the real estate market was down in 1991, most properties were sold for the range: $180,000 - $240,000. The sale activity focussed around small or relatively inexpensive properties. The average sales price for the CT reached a maximum of $2,680,000 during 1994 (Figure 4.29). However, this value scaled back to $1,240,000 during 1995 (Figure 4.30).

Figure 4.19: Spatial Distribution of Sale Price of Freehold Properties in the GTA, 1987

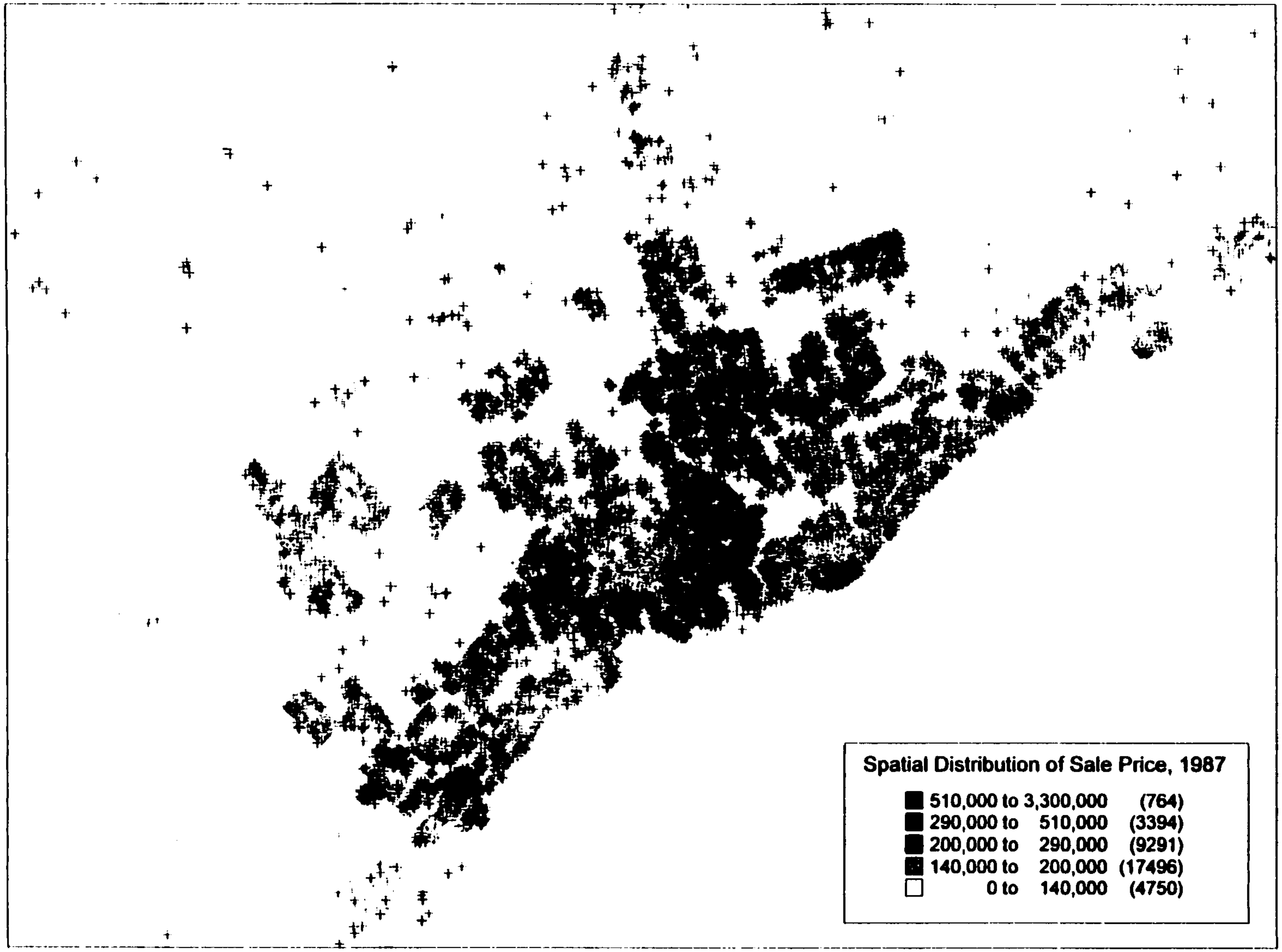


Figure 4.20:

Spatial Distribution of Freehold Propertties by Sales Price in the GTA, 1990

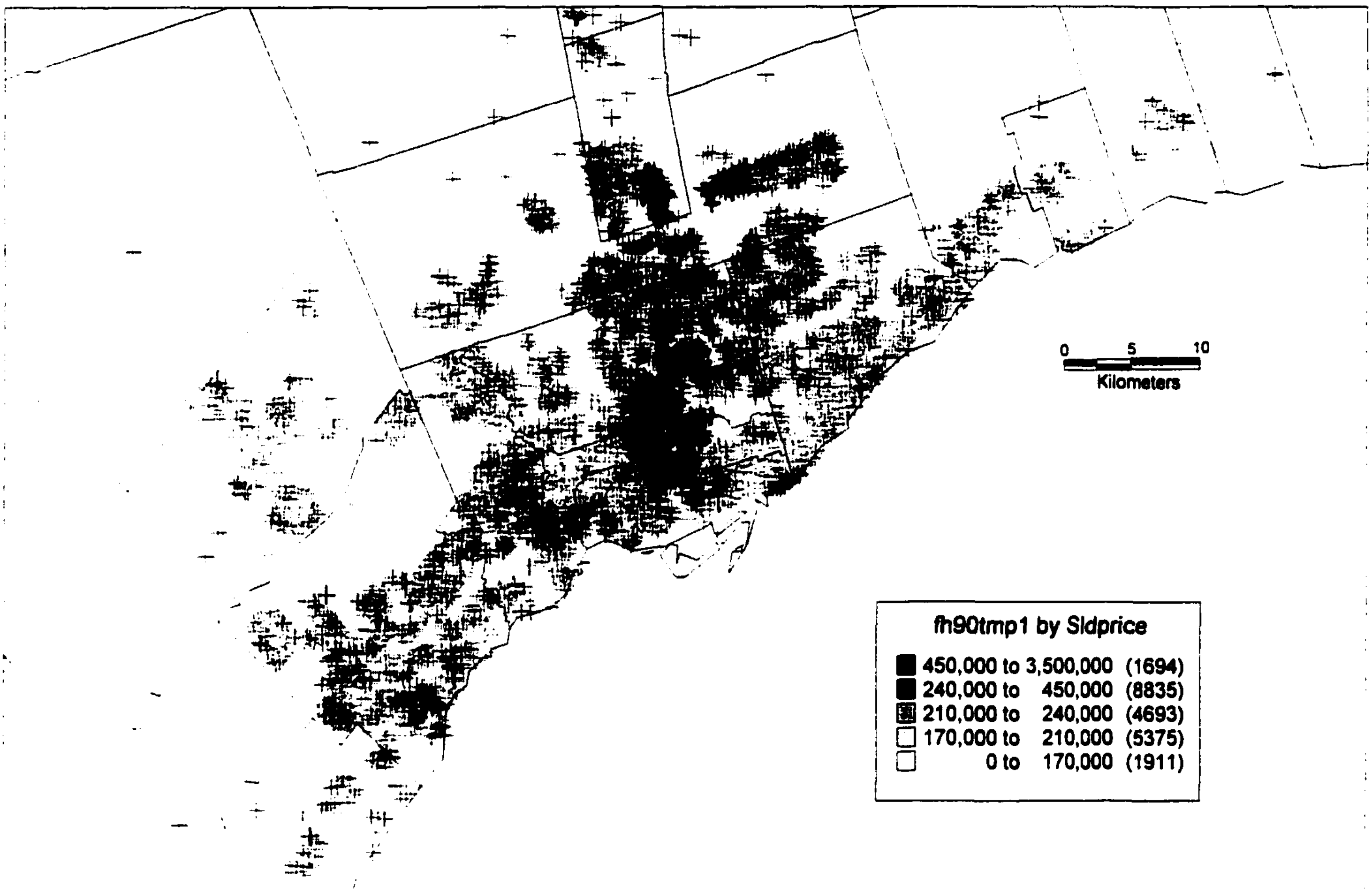


Figure 4.21: Spatial Distribution of Freehold Properties Values in the GTA, 1995

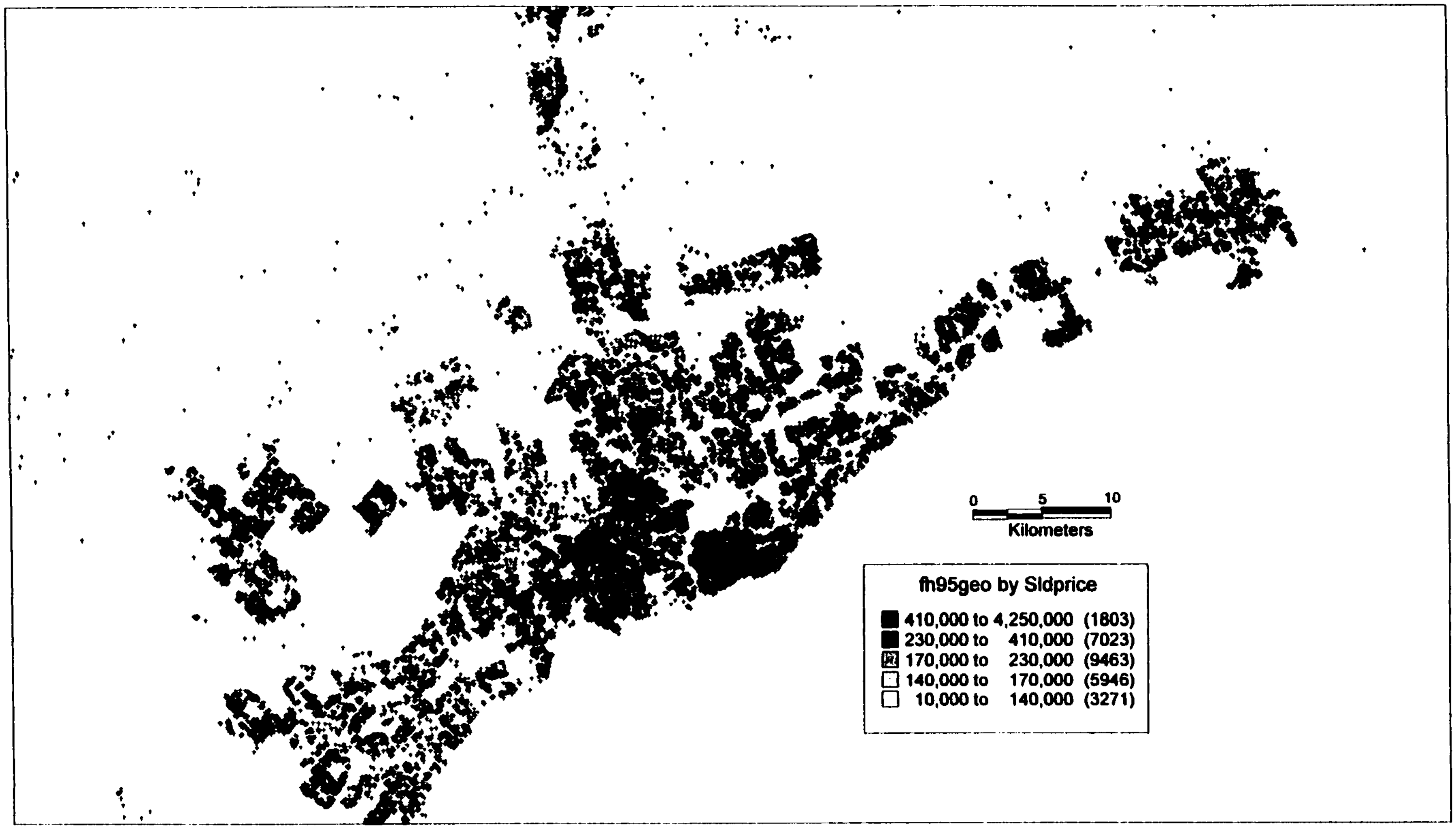


Figure 4.22: Average Sale Price of Freehold Properties by Census Tract, 1987

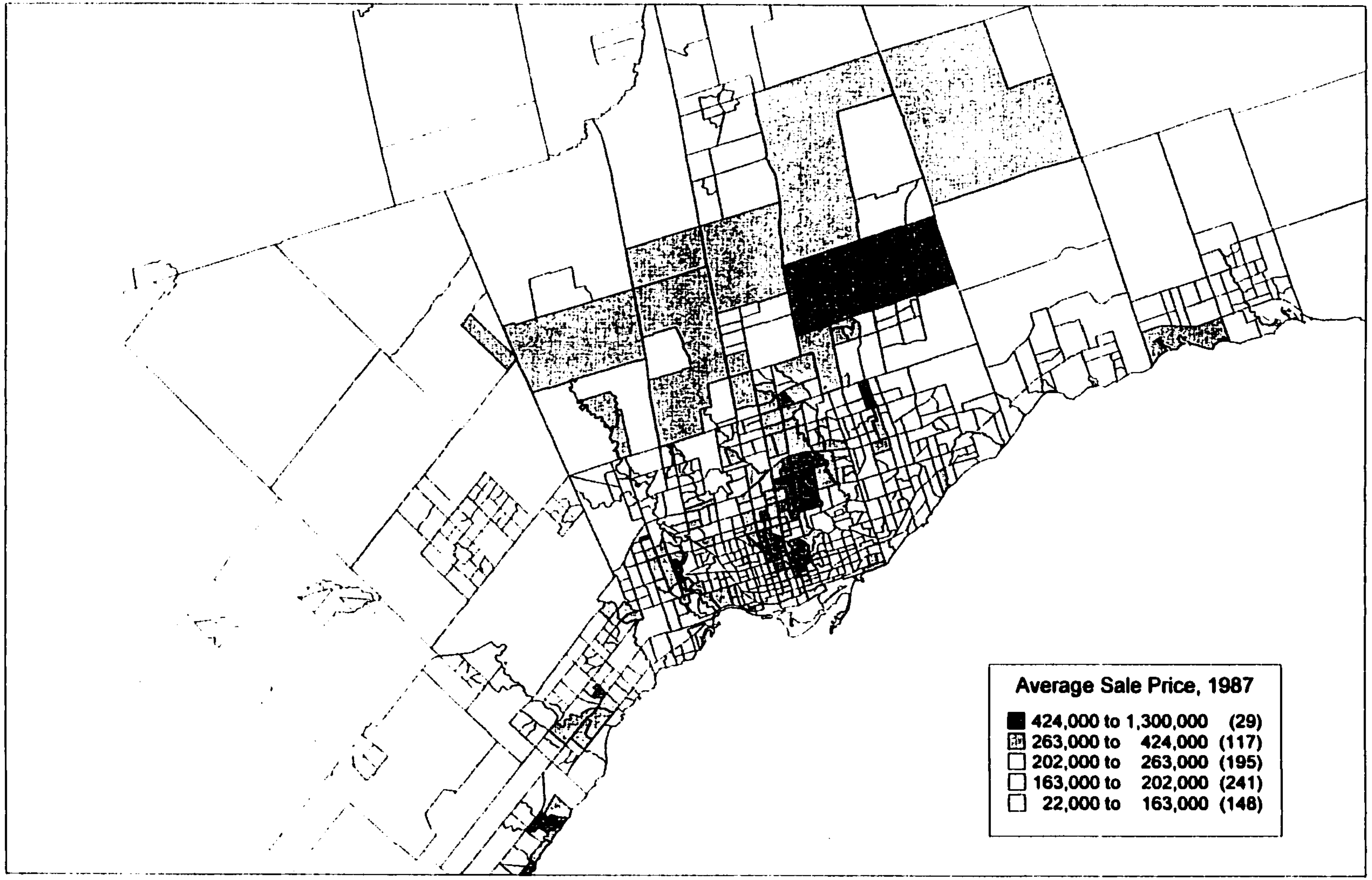


Figure 4.23: Spatial Distribution of Property Values in the GTA, 1988 Freehold Data

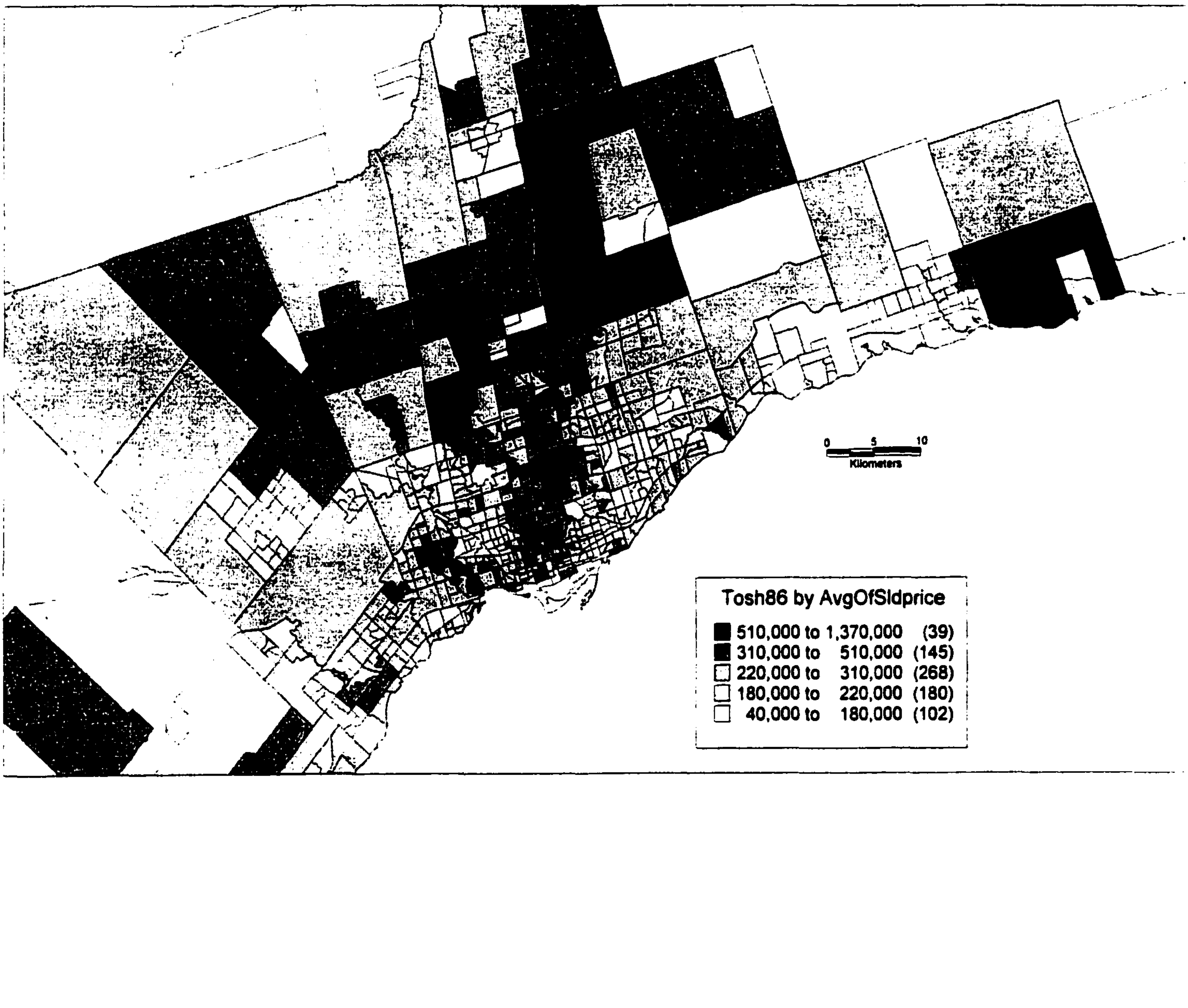


Figure 4.24: Average Sale Price by CT, Freehold 1989 Data Set

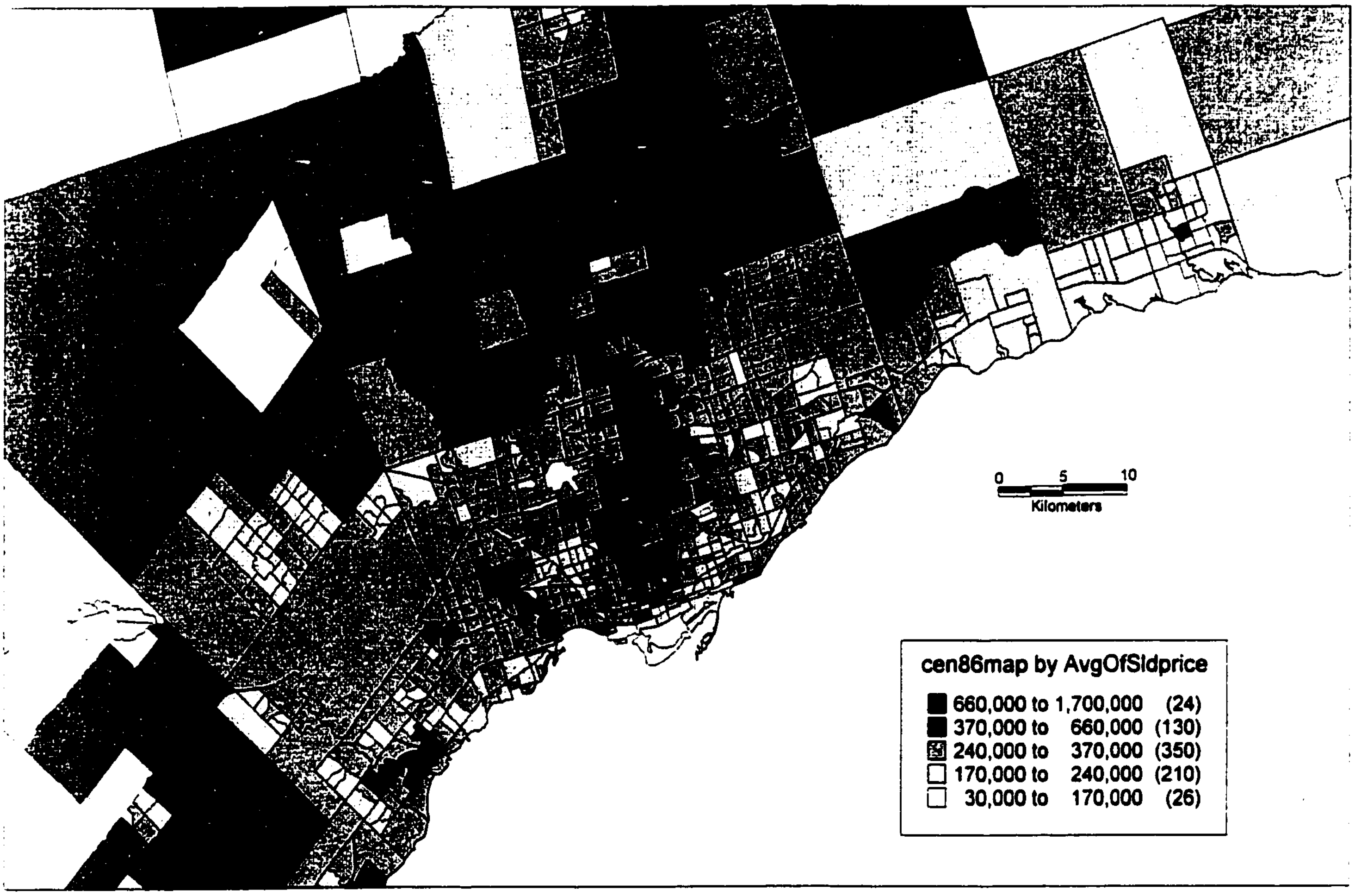


Figure 4.25: Average Sale Price by CT, Freehold-1990

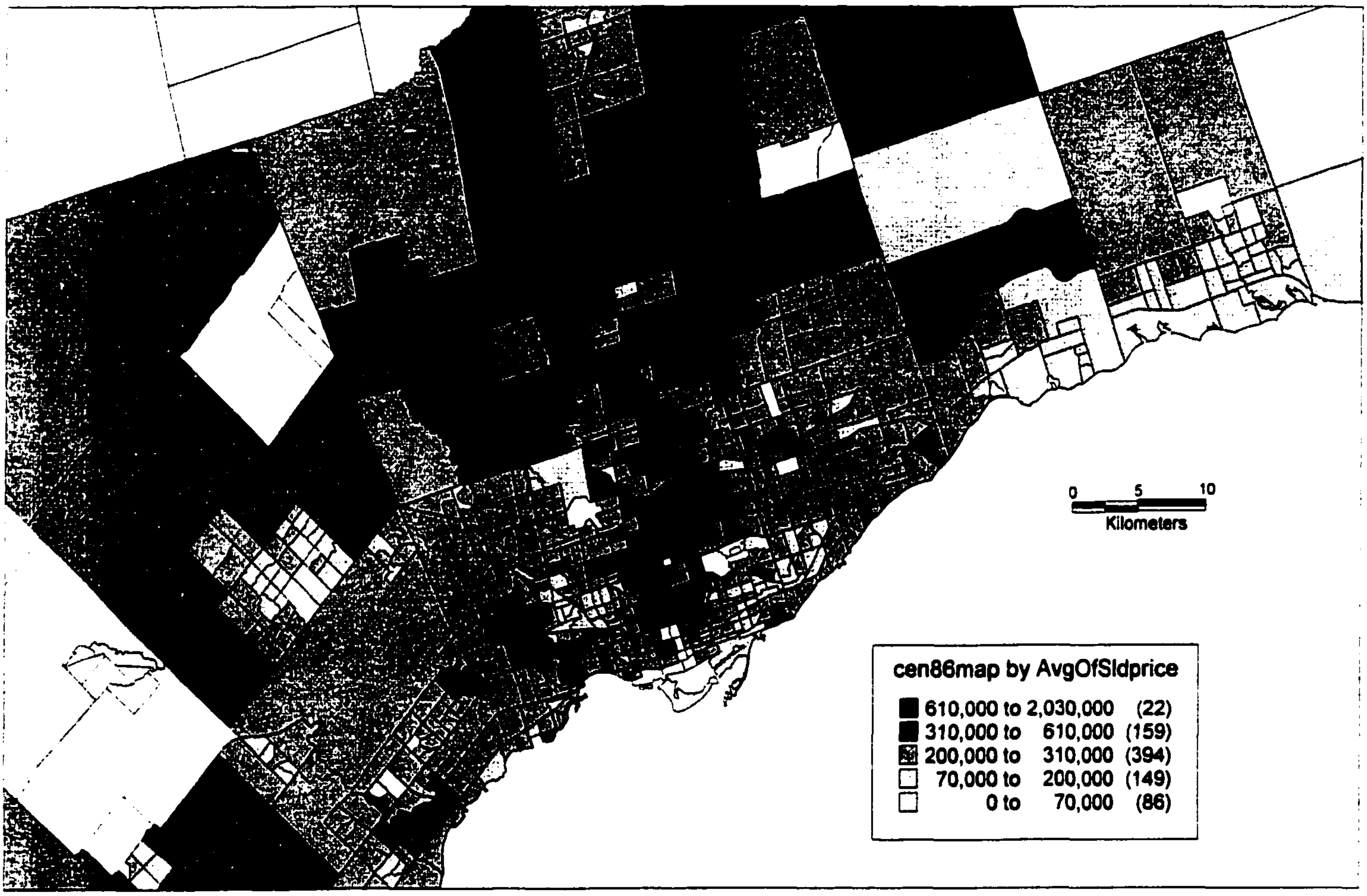


Figure 4.26: Spatial Distribution of Freehold Property Values, 1991

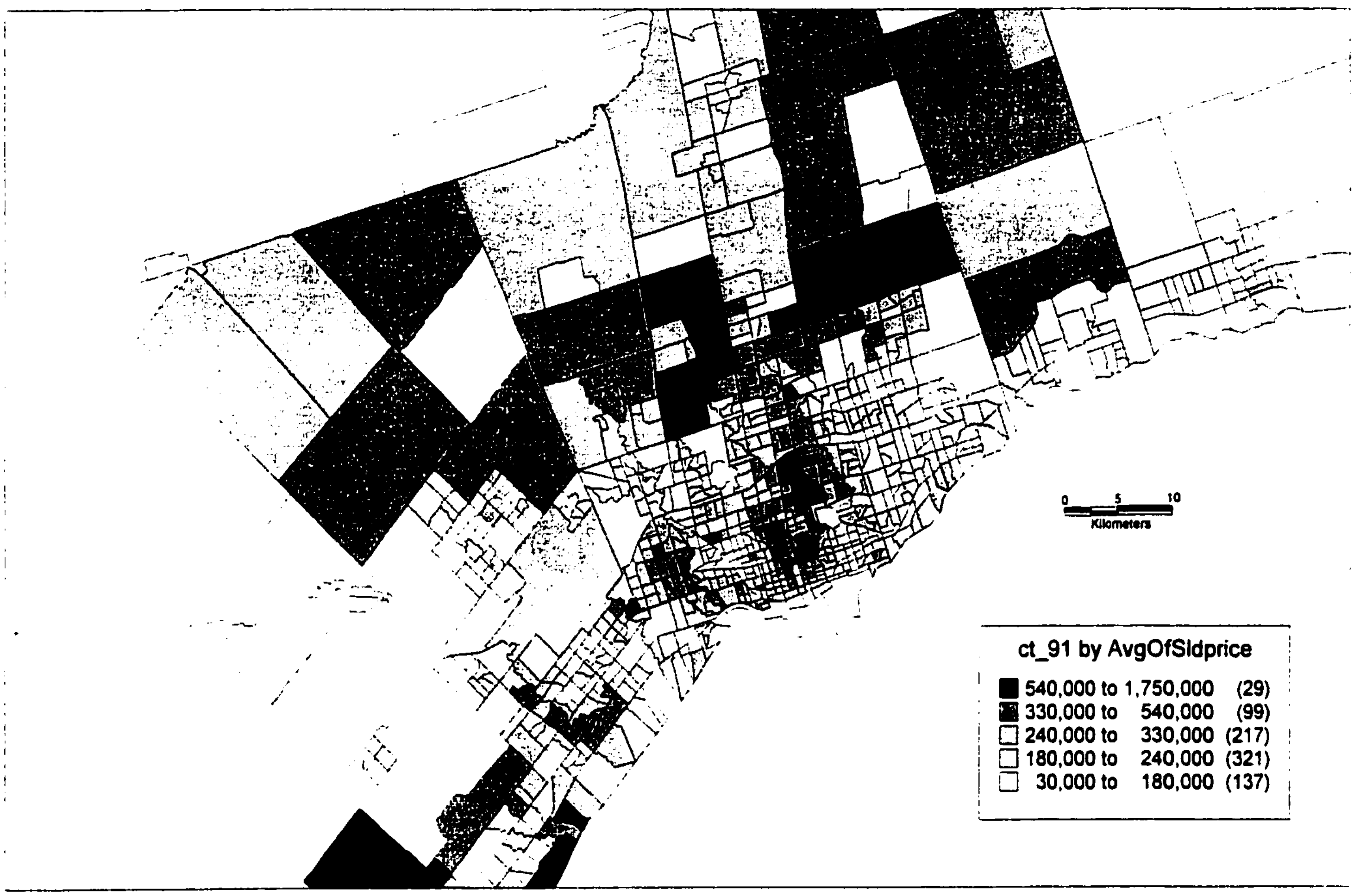


Figure 4.27: Spatial Distribution of Freehold Property Values in the GTA, 1992

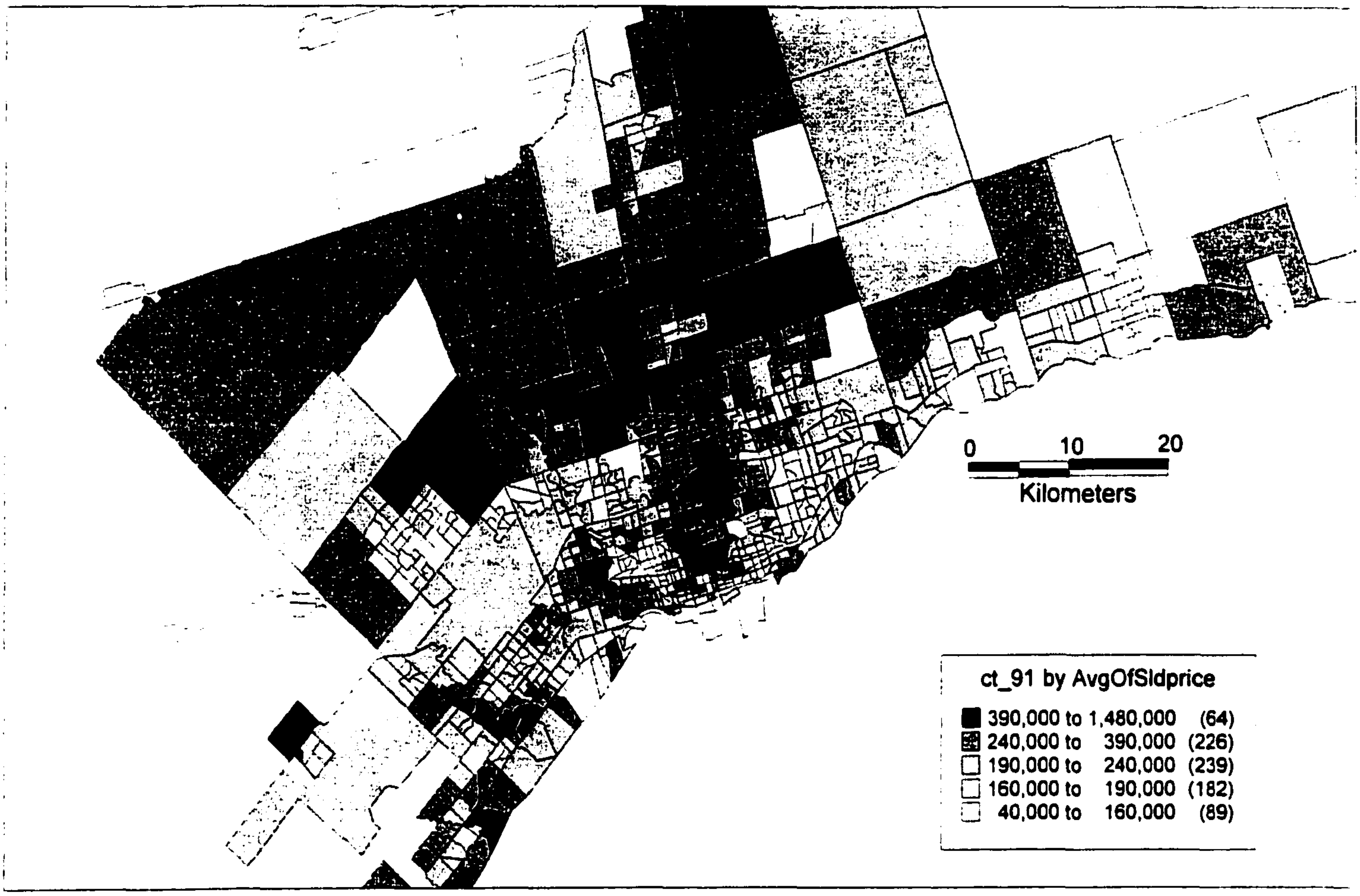


Figure 4.28: Spatial Distribution of Freehold Property Values in the GTA, 1993

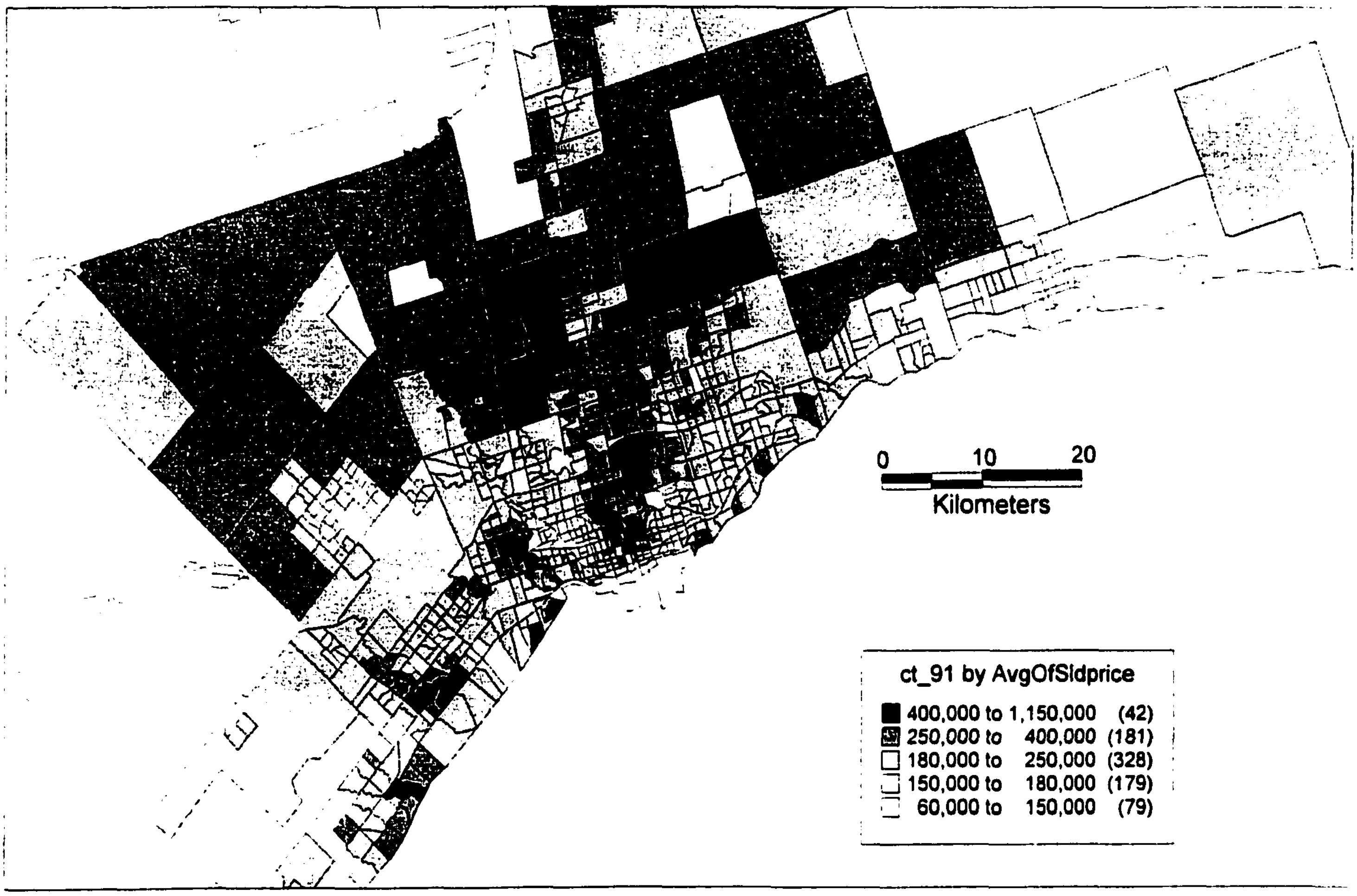


Figure 4.29:

Spatial Distribution of Freehold Property Values in the GTA, 1994

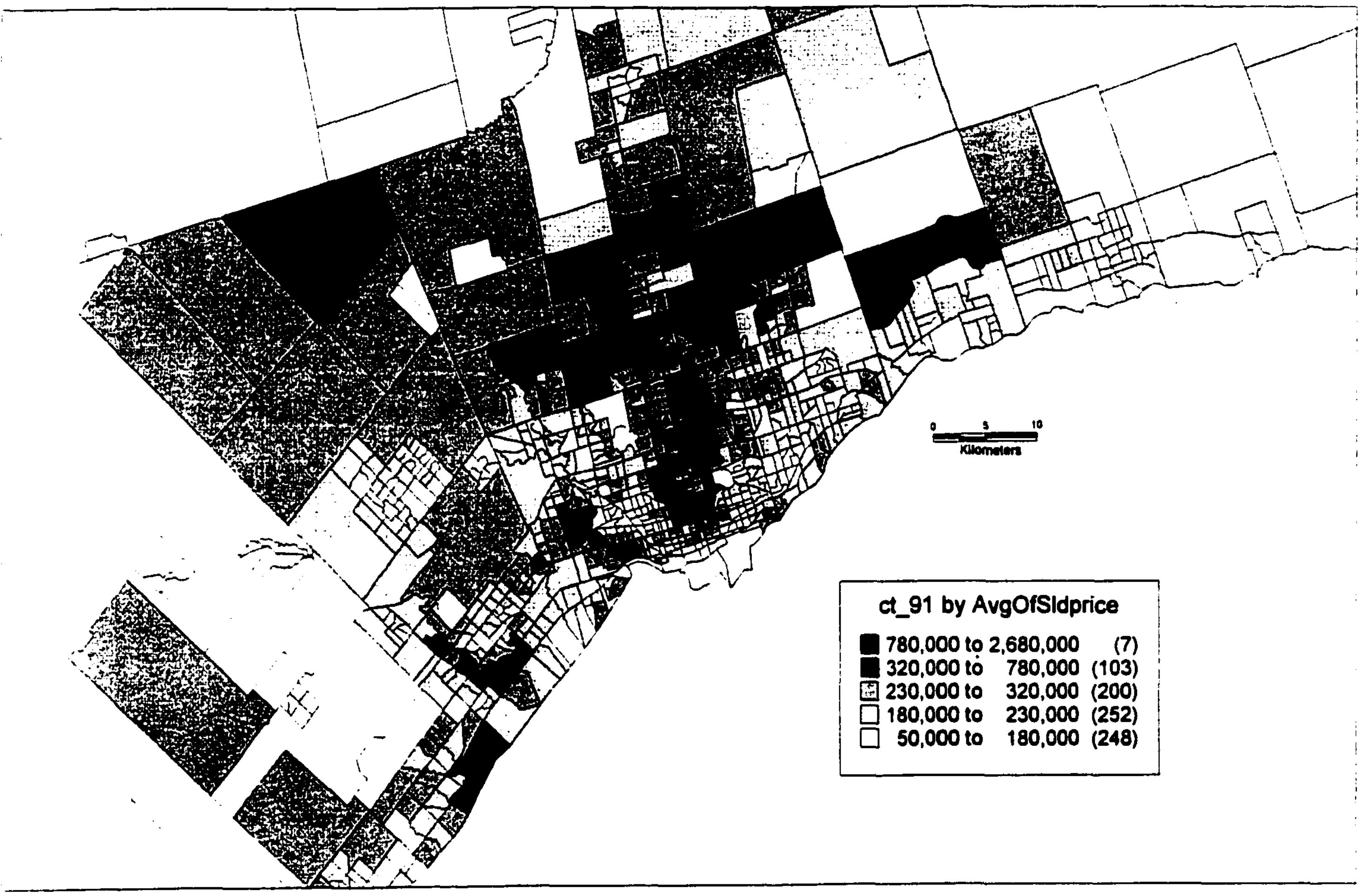
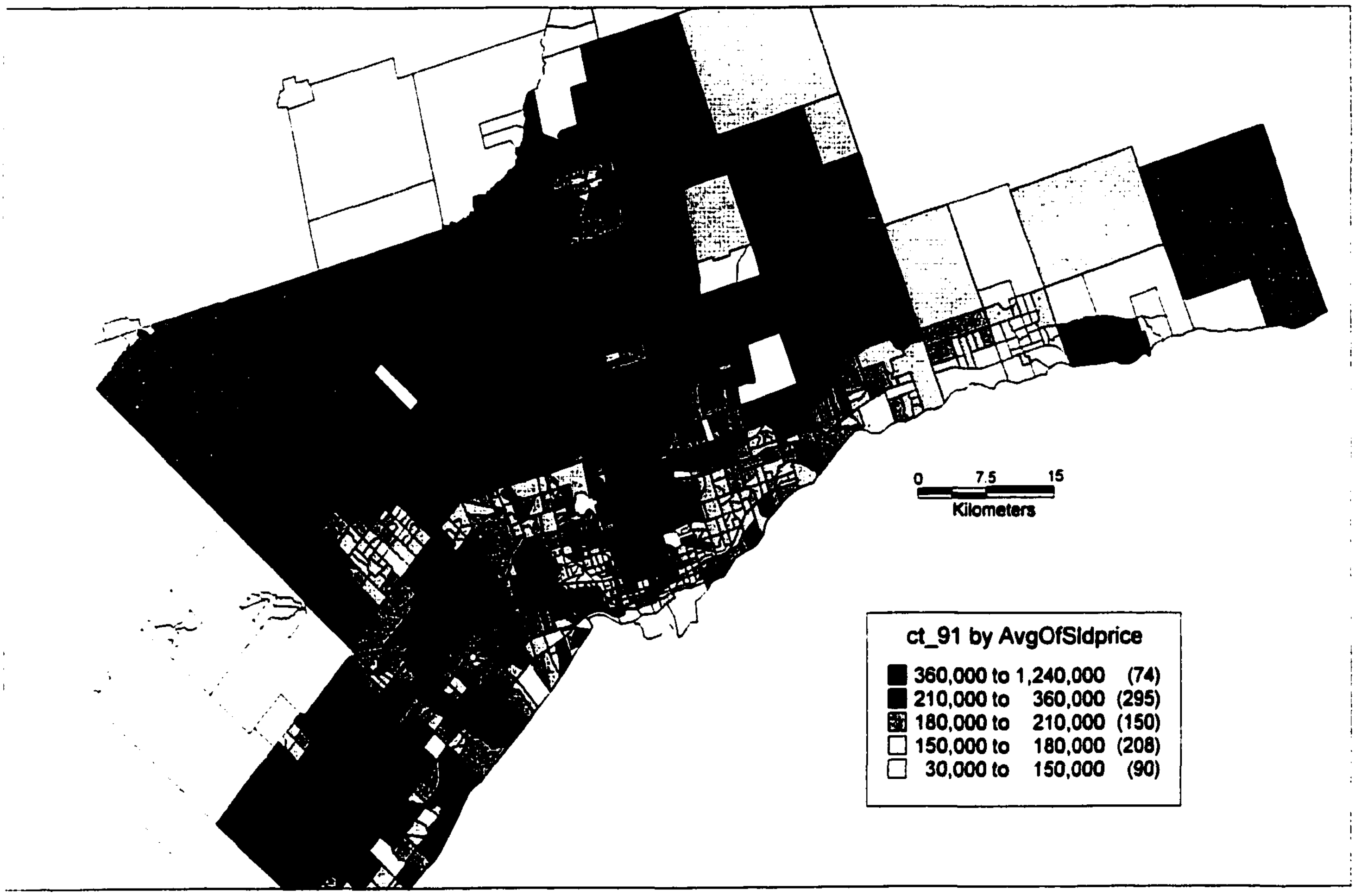


Figure 4.30: Spatial Distribution of Freehold Property Values in the GTA, 1995



Number of bedrooms could serve as a proxy for size. Figure 4.31 reveals that housing size varies between suburban and urban parts of the GTA. Comparatively, more CTs in the suburban areas reported average number of bedrooms greater than 3.75 than the ones in high-density urban areas. High-value properties in the GTA are larger properties. A comparison of Figures 4.22 and 4.31 reveals that neighbourhoods with large-size properties have high property values. Another proxy for size and convenience is the number of washrooms in a housing unit. Figure 4.32 plots number of average number of washrooms within a CT. For freehold sales in 1995 most properties reported more than 2 washrooms.

Tenure choice decisions partly depend upon the availability of different types of housing stock. For GTA, rental properties are primarily available in the high-density parts of Metro Toronto. As for the low-density suburban GTA, 88% to 99% percent of private dwellings comprise owner-occupied housing. Dark shaded areas in Figure 4.33 indicate high percentage of owner-occupied dwellings. CTs consisting of high-value properties also have greater percentages of owner-occupied housing.

Rate of property transactions in different parts of the city differs greatly from each other. When total number of sales within each CT was mapped for 1990, it was discovered that municipalities of Mississauga, Markham, and Oshawa had the largest number of transactions (Figure 4.34). The previous statement may not entirely be true, since the number of sales could be a function of size of the CT or the size of existing housing stock within the CT. In order to get an alternative spatial pattern, the number of property transaction per unit area within a CT was computed. Figure 4.35 offers a contrast from Figure 4.34. CTs with more than 67 transactions per square km during 1990 were found within Metro Toronto.

Figure 4.31: Average No. of Beds Per CT, Freehold Data-1995

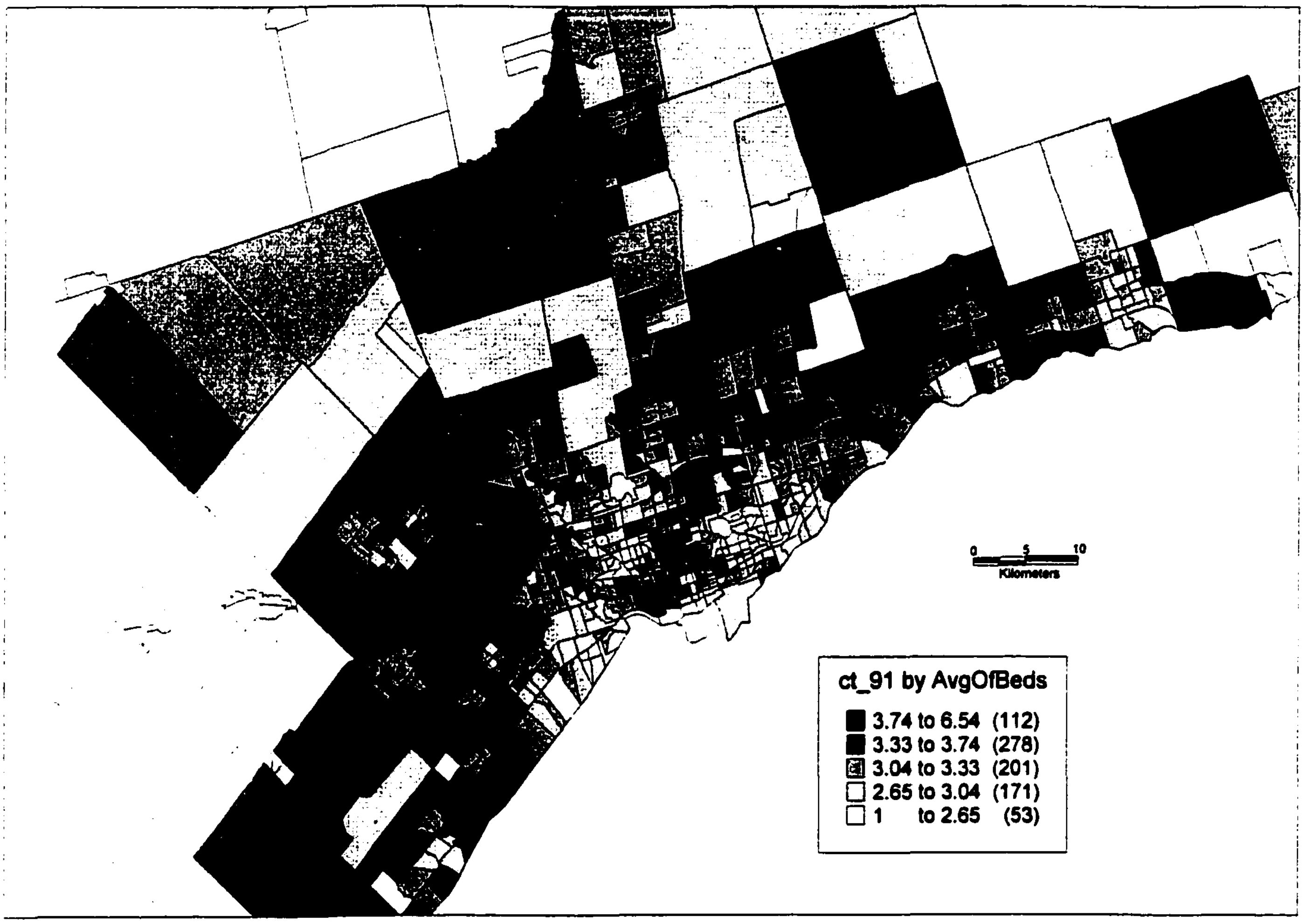


Figure 4.32: Average No. of Washrooms by CT, 1995 Freehold Data

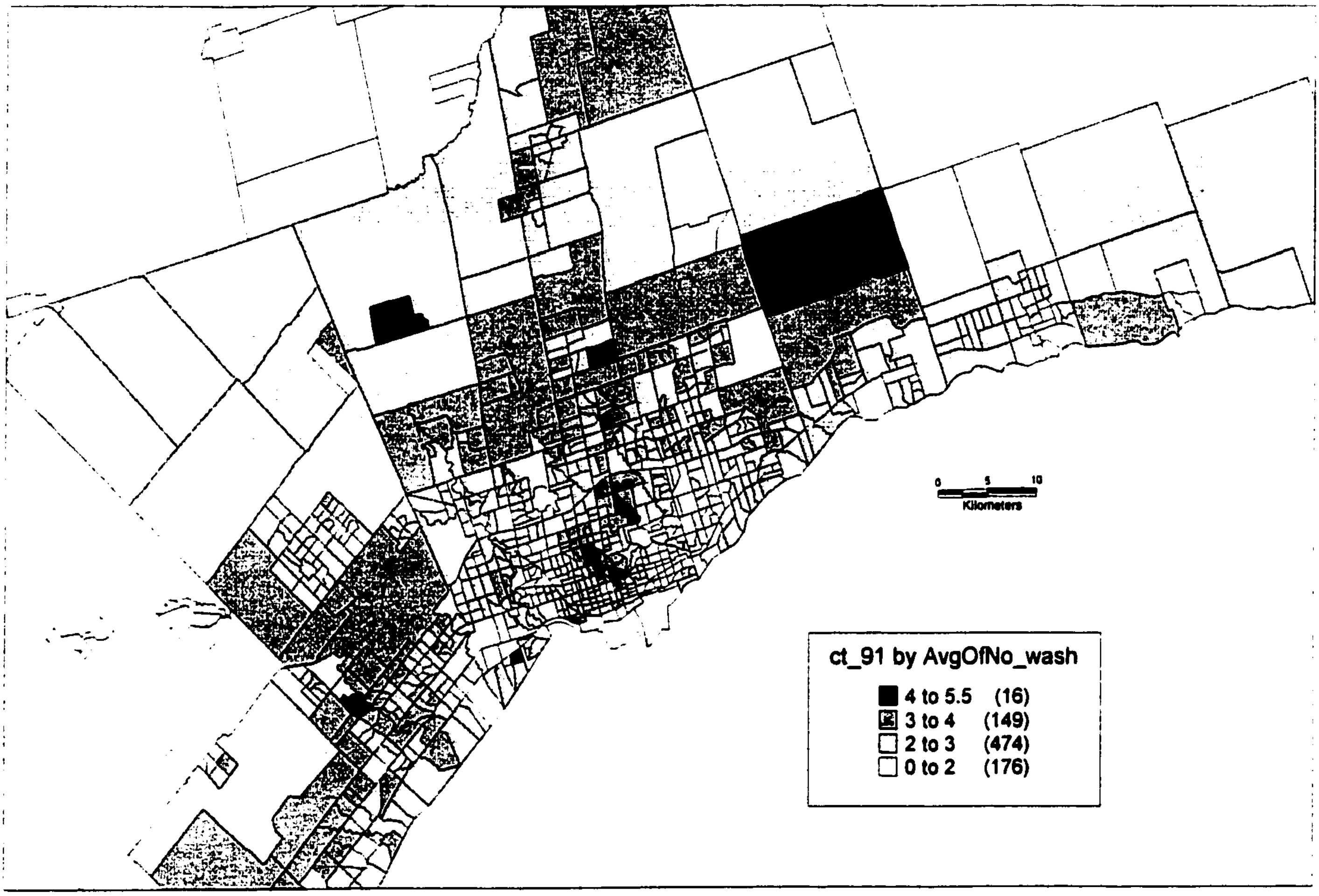


Figure 4.33: Percentage of Owner-Occupied Housing by CT, Freehold-1990

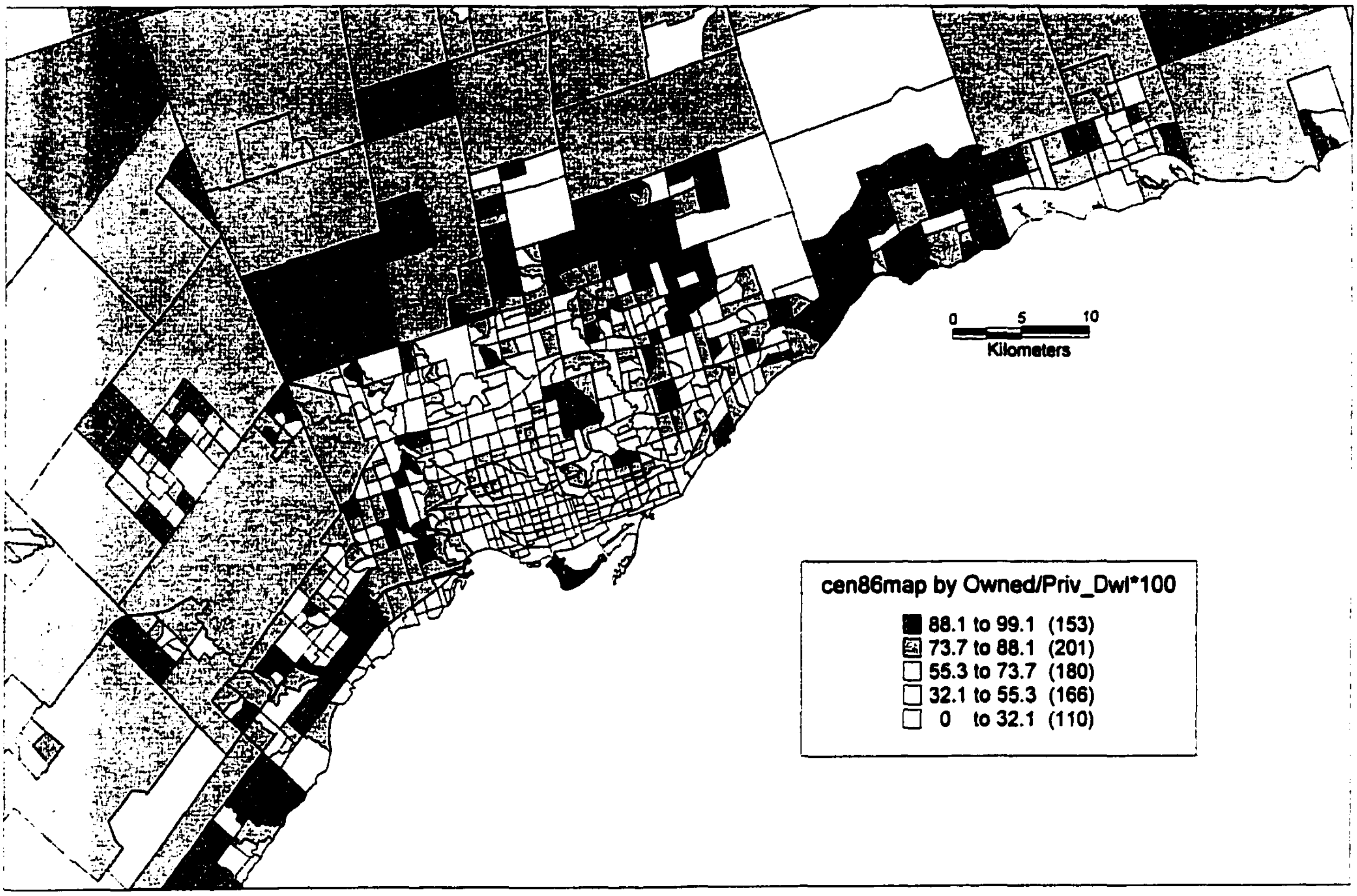


Figure 4.34: No. of Sales by CT, Freehold-1990

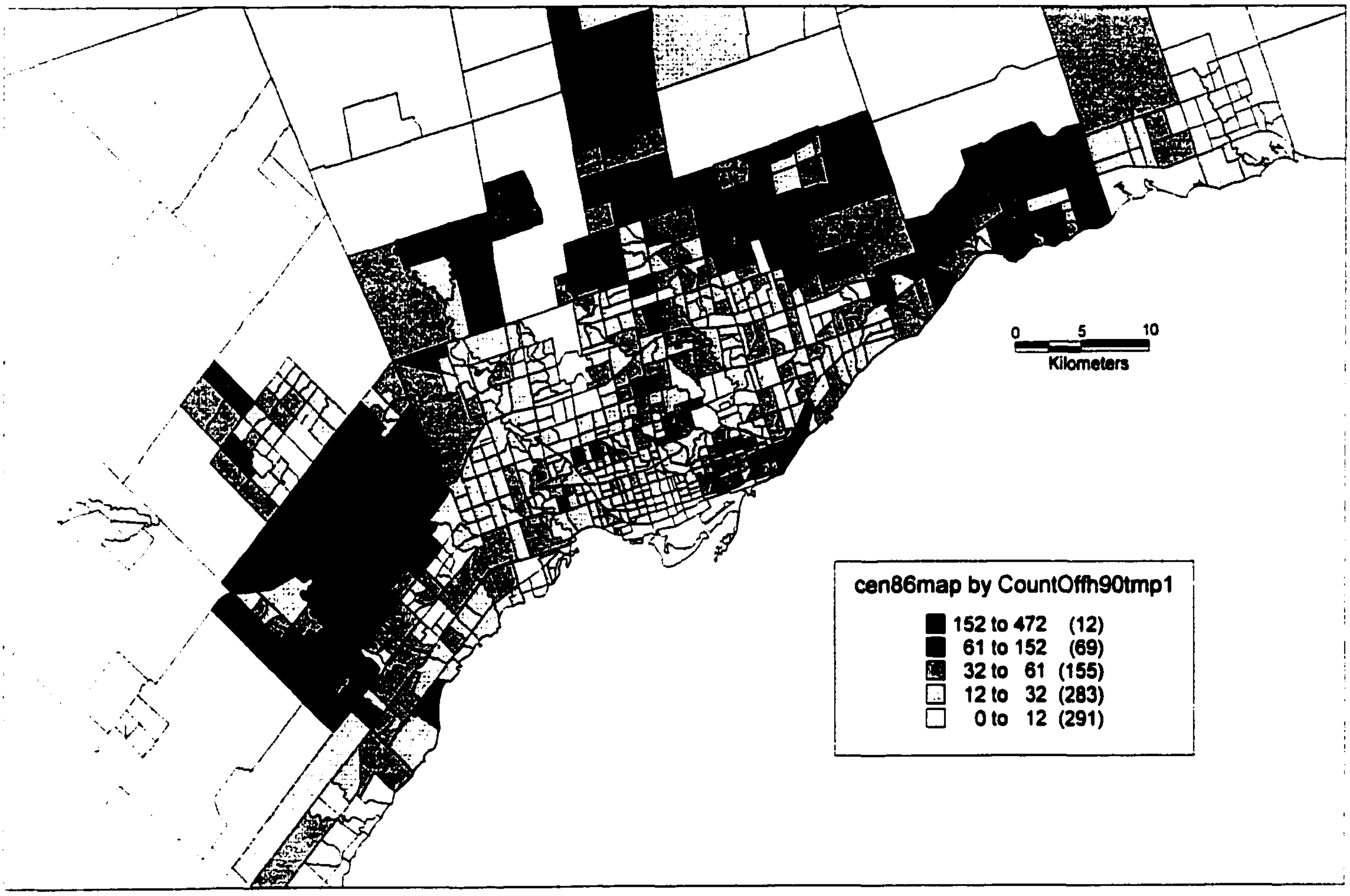
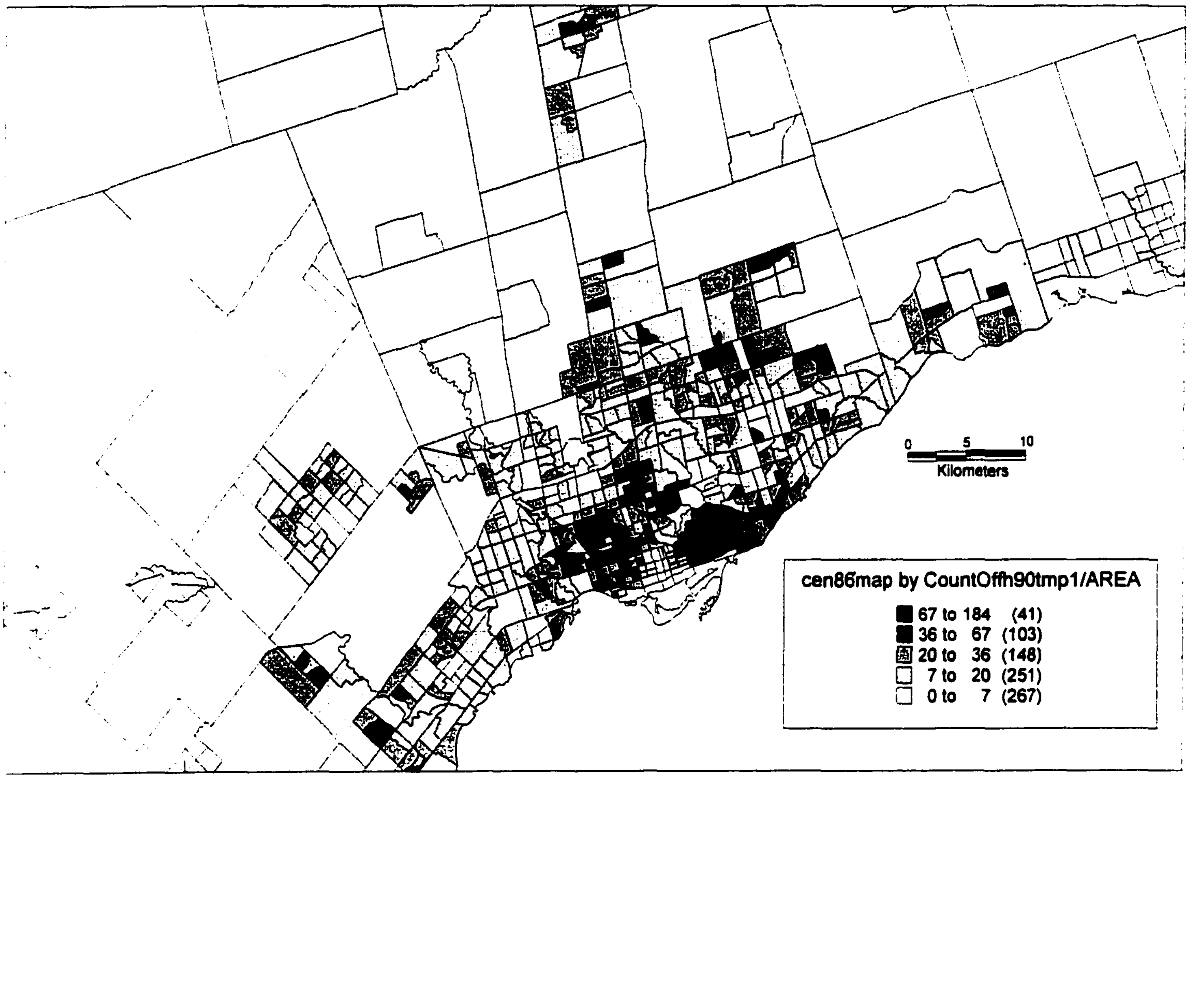


Figure 4.35: No of Sales Per Sq. KM by CT, Freehold-1990



Detailed analysis of the entire freehold data set is carried in Appendices D to K. However, we will discuss some results from 1995 data set in this section.

Basic summary statistics on structural attributes of 1995 freehold sales are given in Table-4.1. Numerous variables in Table-4.1 are binary variables. Thus calculations for mean and standard deviation do not carry any significance for such variables. For binary variables, the means represent the percentage of observations for which the variable value was 1. For instance, the mean value for variable Air_con is .58, indicating that 58% of the sold properties had centralised air conditioning. "Area" is the area in sq. km for 1991 CTs. The mean CT area is 5.11 sq. km as it varies between 0.072 and 267.62 sq. km. Average sales price per CT was $227,655, while the maximum price $1,234,000. The mean sale price for filtered data was slightly lower at $227,018.

Mean of D_CBD was 21.6 km, while the farthest property from King and Bay intersection was at a distance of 80.1 km. The average number of days a property was active in the market, i.e., listed on MLS, is 63 days. The maximum number of active days was 973 days or approximately over 2 ½ years.

The data set was filtered for model estimation and only those properties where sale price was greater than $25,000 and less than $2,000,000 were included in the analyses. Fewer than 25 records were excluded from the entire data set for model estimation in 1995. It was learnt during model estimation that these high-value properties were in fact outliers.

Table 4.1: Descriptive Analysis of structural and Locational Variables

VARIABLES	DESCRIPTION	Minimum	Maximum	Sum	Mean	Std. Deviation
AIR_CON	Bin, 1 if Centralised Air Conditioned	0	1	15830	.58	.49
AREA	Area of CT in sq. km	.072	267.617	140271.186	5.11304	16.68100
AVGPR95	Avg. Price / CT in 1995	88458.333	1234144.3	6245503296	227655.58	102364.00
BEACH	Binary: 1 if within 2 km of Lake, 0 otherwise	0	1	4089	.15	.36
BEACH_1	Binary: 1 if within 1 km of Lake, 0 otherwise	0	1	1730	6.31E-02	.24
BEACH_DO	Binary: 1 if within the two buffers, 0 otherwise	.00	1.00	2359.00	8.599E-02	.2804
BEDS	No. of Bedrooms	0	9	90583	3.30	.87
BRICK	Binary: 1 if brick exterior, 0 otherwise	.00	1.00	24518.00	.8937	.3082
BSMT_FIN	Binary: if finished basement, 0 otherwise	.00	1.00	13553.00	.4940	.5000
CT_AVP	*Ln (average housing price-91 Census)*	11.79	14.05	342412.07	12.4904	.3029
CT_AVP95	Ln(Average value/CT, 95 FH)	11.39	14.03	336516.56	12.2664	.3477
D_CBD	Distance from CBD	.207610877	80.87	592509.65	21.59	13.17
DAYSON	No. of days on MLS	0	973	1715617	62.54	57.90
DETACH	Binary: 1 if detached 0 otherwise	.00	1.00	19716.00	.7187	.4497
(FILTER)	Binary: 1, if satisfies filter , 0 otherwise	0	1	27412	1.00	2.83E-02
FIRE_MLT	Binary: 1, if multiple fireplace, 0 otherwise	.00	1.00	2774.00	.1011	.3015
FIRE_NO	Binary: 1, if no fireplace , 0 otherwise	.00	1.00	10039.00	.3659	.4817
HWAY	Binary: 1, if within 2-km , 0 otherwise	0	1	12161	.44	.50
HWAY_1	Binary: 1, if within 1-km , 0 otherwise	0	1	5243	.19	.39
HWAY_DO	Binary: 1, within the two highway buffers , 0 otherwise	.00	1.00	6918.00	.2522	.4343
KITCHEN	No. of kitchens	0	9	33540	1.22	.54
LAG_VAR	Spatial Lag variable	-1.000	1982730.000	6196588266.99	225872.57	87110.25
LAT	Latitude	43.32	44.34	1199870.093	43.73	.126
LOG_LAG	Ln (Lag_var)	9.80	14.50	335805.98	12.2741	.3210
LOG_PRIC	Ln of Sale Price	9.21	15.26	335651.23	12.2349	.4170
LONG	Longitude	-80.11	-78.44	-2178574.95	-79.411	.229
LSTPRC	List Price or Ask Price	12900	5200	6600501820	240595.68	147874.61
MALL	Binary: 1, if with 5-km , 0 otherwise	0	1	12584	.46	.50
MALL_25	Binary: 1, if within 2.5-km , 0 otherwise	0	1	3086	.11	.32
MALL_DO	Binary: 1, within the two mall buffers , 0 otherwise	.00	1.00	9498.00	.3462	.4758
NEW_PROP	Binary: 1, if listed for the first time , 0 otherwise	.00	1.00	11993.00	.4372	.4960
NO_WASH	No. of washrooms	0	9	68439	2.49	1.03
PARK_CAP	Parking capacity	0	5	31422	1.16	.82
PARK_PRV	Binary: 1, if Private parking available , 0 otherwise	.00	1.00	18780.00	.6846	.4647
POOL_IND	Binary: 1, if indoor pool , 0 otherwise	.00	1.00	48.00	1.750E-03	4.179E-02
POOL_UG	Binary: 1, *if outdoor, regular pool* , 0 otherwise	.00	1.00	1758.00	6.408E-02	.2449
ROOMS	No. of Rooms	0	90	190041	6.93	1.95
SLDPRICE	Sale Price	10	4250	6245503296	227655.58	134179.54
SUBWAY	Binary: 1, within 1.5-km , 0 otherwise	0	1	6125	.22	.42
SWAY_1	Binary: 1, if within 1-km , 0 otherwise	0	1	4211	.15	.36
SWAY_DO	Binary: 1, if within the two subway buffers , 0 otherwise	.00	1.00	1914.00	6.977E-02	.2548
TAXES	Property tax	.000	730534.000	52850025.4	1926.44	9174.9
THREE_ST	Binary: 1, if three-storey , 0 otherwise	.00	1.00	1085.00	3.955E-02	.1949

The influence of accessibility variables, described earlier in Chapter 3, could be determined in a multivariate analysis. However, certain basic assumptions could be tested by ordinary cross-tabulations. Effect of various accessibility variables, such as highway, subway, etc. on price is presented in Table 4.2. For variable names and descriptions, please consult Table 4.1. Average sale price of properties sold within 1.5-km of a subway track was higher than the rest of the stock. For example, properties within 1-km distance of a subway line averaged $267,000, generating approximately $47,000 more than the remaining sample with average sale price of $220,000. Properties falling within the intersection of two buffers, averaged around $256,000. This suggests that properties situated close to a subway line are valued higher than the rest of the sample. Property values decline with the distance from the subway line. These relationships were later explored in the Hedonic models.

Proximity to regional shopping malls has often been considered to add premium to property values. There is some truth to this assumption. Average price of properties within a 5-km radius of the ten regional shopping malls was $4,000 more than the rest of the sample. There are well-documented side effects of living very close to a commercial or industrial property. Properties that are very close to the shopping centres, i.e., within a 2.5-km radius of the mall, experience noise and air pollution, more than usual traffic volume on small streets, and other such discomforts that take away the locational advantage due to proximity. Thus, the average price of properties within a 2.5-km radius of shopping centres was $205,000, much lower than the average price of the remaining sample at $230,000. Properties that were located within the intersection of two buffers, i.e. within the donut, experience the maximum advantage due to location as the average sale price of such properties was $237,000, generating $15,000 more than the rest of the sample. For 1995, 46% of the sold properties were located within a 5-km radius of the ten regional shopping centres in the GTA.

Toronto is unique for its lakeshore real estate. Unlike other major metropolitan areas, Toronto's lakeshore is punctuated with industrial properties or small, old residential units. With the exception of few neighbourhoods along lakeshore, most residential real estate near Lake Ontario is inferior in quality than the rest of the stock in the GTA. This could explain why properties located within 2-km of the lake were sold for less price than rest of the sample. Average sale price of properties within 2-km of lakeshore was $194,000, almost $40,000 less than the remaining sample, whose average sale price was around $233,000. Average price of properties within a 1-km radius of the lakeshore was slightly better at $203,000.

During 1995, 44% of the total sold properties were located within 2-km of major highways. The average price of these properties was lower than the sale price of the remaining sample. Binary variables for highway accessibility indicated that average sale price of properties located close to a highway was lower than the average price of remaining sample.

Table 4.2: Descriptive Analysis of Binary Locational Variables

Summarize

SLDPRICE * BEACH

Freehold 1996 Structural Attrib.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	23323	85.1%	232766.39	198000.00	25500	1918000
1	4089	14.9%	194236.04	170000.00	30000	1200000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

Freehold 1996 Structural Attrib.

SLDPRICE

BEACH_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	25682	93.7%	228808.52	193000.00	25500	1918000
1	1730	6.3%	203420.65	174300.00	30000	1200000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

Freehold 1996 Structural Attrib.

SLDPRICE

BEACH_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	25053	91.4%	230739.97	195000.00	25500	1918000
1.00	2359	8.6%	187500.40	168000.00	34500	1143000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

SLDPRICE * HWAY

Freehold 1996 Structural Attrib.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	15258	55.7%	229694.43	193000.00	25500	1918000
1	12154	44.3%	223408.97	190000.00	26000	1750000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

Freehold 1996 Structural Attrib.

SLDPRICE

HWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	22171	80.9%	228593.29	191000.00	25500	1918000
1	5241	19.1%	220358.72	192000.00	36000	1550000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

Freehold 1996 Structural Attrib.

SLDPRICE

HWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	20499	74.8%	227456.42	193000.00	25500	1918000
1.00	6913	25.2%	225721.48	188000.00	26000	1750000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

SLDPRICE * SUBWAY

Table 4.2: Descriptive Analysis of Binary Locational Variables

Freehold 1996 Structural Attrib.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	21295	77.7%	216412.09	188300.00	26000	1768000
1	6117	22.3%	263944.16	210000.00	25500	1918000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

Freehold 1996 Structural Attrib.

SLDPRICE

SWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	23208	84.7%	219736.73	189800.00	26000	1768000
1	4204	15.3%	267219.72	214950.00	25500	1918000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

Freehold 1996 Structural Attrib.

SLDPRICE

SWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	25499	93.0%	224788.70	190000.00	25500	1918000
1.00	1913	7.0%	258745.80	202000.00	38000	1600000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

SLDPRICE * MALL

Freehold 1996 Structural Attrib.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	14838	54.1%	225182.19	195000.00	27000	1768000
1	12574	45.9%	229186.29	188000.00	25500	1918000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

Freehold 1996 Structural Attrib.

SLDPRICE

MALL_25	N	% of Total N	Mean	Median	Minimum	Maximum
0	24326	88.7%	229769.72	193000.00	25500	1918000
1	3086	11.3%	205334.94	182430.00	41000	1375000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

Freehold 1996 Structural Attrib.

SLDPRICE

MALL_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	17924	65.4%	221765.06	192000.00	27000	1768000
1.00	9488	34.6%	236944.01	190000.00	25500	1918000
Total	27412	100.0%	227018.89	191500.00	25500	1918000

```
FORMAT Mall_do(f1.0).
```

Certain relationships were determined during the explanatory analyses of the data. Referring to the detailed cross-tabulations in Appendix A, one can see that the sales price increased with the number of rooms, washrooms, bedrooms, and parking capacity. Anomalies in the data set, such as properties with 80 rooms were corrected by eliminating those records from Hedonic model estimation. Detached properties were of higher values than the other types, while larger properties were more expensive than the smaller properties. Properties with an indoor pool or multiple fireplaces averaged over $400,000. Properties with quality exterior, such as stone, shingle or stucco, were sold for significantly higher values than the rest of the sample. However, almost 90% of the sold properties in the GTA had a brick exterior.

Properties with built-in garages were sold for higher price than properties with detached garages, while the price increased with the number of garages. Similarly, private driveway added value to the property Centrally air-conditioned properties were more expensive than properties without air-conditioning.

Municipal variations in housing prices indicate that during 1995 King County, Richmond Hill and Vaughan reported the high median sale prices. While low median sale prices were reported in New Castle, Oshawa and Georgina. Within Metro Toronto, North York reported the highest median sale price at $245,000.

CHAPTER5

DEVELOPMENT OF SPATIAL AUTO-REGRESSIVE MODELS

SPATIAL AUTOCORRELATION

The impetus for advocating spatial autoregressive techniques is premised on the assumption that spatial autocorrelation exists in housing data. This chapter begins with diagnostics of spatial autocorrelation in the freehold data. To quantify spatial autocorrelation, Moran's I is calculated for housing data. Since spatial autocorrelation is a function of distance between the observed values, variograms are estimated for housing data to offer an estimate of the extent of implicit spatial autocorrelation in housing values.

Estimation of spatial autocorrelation is computationally intensive. The state-of-the-art in computer software packages, capable of estimating Moran's I, can handle only small data sets. Often small samples of less than few thousand observations are used to estimate spatial autocorrelation. Most techniques employed to estimate spatial autocorrelation make use of areal or regional data. We specified weight matrix, w_{ij}, depicted in equation 5.1 by relying on level of adjacency among CTs. Moran's I is defined by:

$$I = \frac{n\sum_{i=1}^{n}\sum_{j=1}^{n} w_{ij}(y_i - \bar{y})(y_j - \bar{y})}{(\sum_{i=1}^{n}(y_i - \bar{y})^2)(\sum\sum_{i \neq j} w_{ij})}$$

... 5.1

Where y_i is the variable of interest and w_{ij} is the spatial weight matrix.

In our housing database, neighbourhood attributes were either obtained or derived from CT level data. We are, therefore, restricted to techniques used for areal data in estimating the weight matrix. For consistency in spatial autocorrelation estimation, we used average sales price by CT. By using contiguity as a measure for adjacency in specifying weight matrix for areal data, one can avoid the ad hoc methods based on distance. For example, observations within a certain distance of each other could be classified as spatial neighbours. However, this method runs into trouble with areal data when the centroid of the region is used as a proxy to estimate distances. For irregular regions, or for a skewed spatial distribution of the observed variable, centroid-based distance calculations could lead to erroneous results.

Moran's I was applied to estimate spatial autocorrelation. We preferred Moran's I to Geary's C, since Moran's coefficient, in case of a mis-specified Geometric Weight Matrix, seems to retain power better than other spatial autocorrelation test statistics (Florax, et al. 1995). Critical values for both Moran's I and Geary's C are reported in Table 5.1.

Table 5.1: Critical values for Spatial Autocorrelation Statistics (Vasiliev 1996)

Condition	MORAN	GEARY
Strong Positive Correlation	+1	0 - 0.99
Strong Negative Correlation	-1	2
Random Distribution of values	-1/(n-1)	1

n is the number of observations.

Two regional maps, one for 1986-CT boundaries and the second for 1991-CT boundaries were used for spatial autocorrelation estimation. Moran's I was estimated for housing values and certain neighbourhood attributes, using the corresponding CT boundary map. Following are the results from Moran's I computations for average CT housing value in 1988. The weight matrix was specified using three techniques. For two contiguous regions, level of adjacency could be expressed as a function of the length of common border, therefore, the greater the length of the common border between two regions, the more contiguous they are. Another simpler approach is to use a binary variable as the weight matrix: the variable value is 1, if the two CTs are contiguous and 0 otherwise. The third method tested for specifying weight matrix is similar to the first technique where length of the common border between contiguous regions defines adjacency. However, to explicitly incorporate spatial structure of the region, the common border length between the two regions is weighted by the average perimeter of the two regions. Table 5.2 presents results for Moran's I using the length of common border, adjacency, and weighted common border length as a measure of contiguity in weight matrix.

Table 5.2: Moran's I calculations for average CT housing Sale Price, 1988

	Common Border Length	Adjacency	Weighted Common Border Length
Observations	810	810	810
S1	18589.093494	7984.000000	361.858676
S2	178030.687169	90200.000000	3101.418578
Sum of Weights	3889.993710	3992.000000	766.294213
Moran's I	0.464946	0.510459	0.546627
Expected Value	-0.001236	-0.001236	-0.001236
Std Error	0.034907	0.022329	0.024785
t Statistic	13.354922	22.916092	22.104734
95% C.I. Upper	0.533364	0.554224	0.595205
Lower	0.396528	0.466694	0.498049

Results from these computations indicate presence of strong spatial autocorrelation in housing values. A comparison of the three techniques reveals that a simpler weight matrix returns a higher value for spatial autocorrelation than the common border length technique, suggesting presence of even higher spatial autocorrelation. However, the binary weight matrix is oblivious of the spatial structure of the region. Weighted common border length specification, which is sensitive to the spatial structure of the region, indicates presence of even a higher level of spatial autocorrelation.

When Moran's coefficient was compared for CT housing values in 1988 and 1994, we discovered a higher degree of correlation in 1994 (0.663), than in 1988 (0.55). The increase in the value of Moran's coefficient could have resulted from the changes made to boundaries of certain CTs, or it could have been due to the fact that spatial dependency in housing values actually increased in 1994.

Table 5.3: Average CT housing Sale Price, 1994

	Common Border Length	Adjacency	Weighted Common Border Length
Observations	802	802	802
S1	13113.815404	7720.000000	354.243008
S2	112138.411584	84272.000000	2942.867738
Sum of Weights	3361.005593	3860.000000	745.750420
Moran's I	0.626776	0.655023	0.662877
Expected Value	-0.001248	-0.001248	-0.001248
Std Error	0.033958	0.022710	0.025200
T Statistic	18.493883	28.897797	26.354367
95% C.I. Upper	0.693334	0.699534	0.712268
Lower	0.560217	0.610511	0.613485

Table 5.2 and 5.3 suggest presence of strong spatial autocorrelation in the housing values. An increase in spatial autocorrelation has also been observed during the study period. Though the above-mentioned methods quantify spatial autocorrelation in the data, the extent of spatial autocorrelation effects is still unknown. For example, the above-mentioned calculations offer no insights into the variation in correlation levels with distance. In addition, Moran's I or Geary's C do not carry information on the presence of anisotropy. Spatial autocorrelation varies with distance and direction. It is known that variance in observed values increases with distance between the observed points. In addition, spatial autocorrelation may change with direction. These concerns can be addressed by applying directional semi-variograms to housing price data.

APPLICATION OF SEMI-VARIOGRAMS TO DETECT ANISOTROPY

Details on applying semi-variogram could be find in (Cressie 1993). The semi-variogram function can be defined as "half of the averaged square difference between points separated by a distance h." The directional semi-variogram can be estimated by using the following equation:

$$\gamma(h) = (2|N(h)|)^{\wedge -1} \Sigma_{N(h)} (z_i - z_j)^{\wedge 2} \quad \ldots 5.2$$

Where N(h) =Set of all pair-wise Euclidean distances

|N(h)|) = No. of distant pairs in N(h)

z_i and z_j are data values at location i and j respectively.

h can have both size and direction. The size refers to the distance (lags) at which semi-variograms are estimated, while direction refers to the specified azimuth and the corresponding range to select all pairs of points that fall within that range. Azimuth is the true north and is represented in this section by az=o. When az=o, the semi-variogram is called a north-south variogram, when az=90, the variogram is referred to as a east-west variogram.

Directional variograms clearly identify presence of anisotropy, since the shape of variogram changes with direction. The semi-variograms reported in this section are estimated for azimuths: 0, 22.5, 45.0, 62.5, 90.0, 112.5. Points of pairs are selected that fall between +/- 11.25 of the specified azimuth. The function γ (h) increases with distance. Housing units lying close to each other report similar prices, thus $(z_i-z_j)^{\wedge 2}$ will return a small value. As the distance between housing units increases, so does the difference in their prices and hence $(z_i-z_j)^{\wedge 2}$ will return a bigger number. If at a distance x, the increasing value of the function γ (h) levels off, the point is called "range", which indicates that observed points are no longer correlated at that distance.

Semi-variograms were estimated for the City of Toronto and Mississauga and also for a 3000-random sample of the entire sales in 1995. The directional variogram, reported for the 3000 random sample, indicated that prices were correlated up to a distance of 9 kilometres (0.08 x 110), beyond which prices were no longer correlated. This can be seen in Figure 5.1 by the increasing values of γ (h). Beyond 9-km, the variogram remains flat, indicating no or small autocorrelation. This particular variogram is not appropriate as the semi-variogram function is trying to find correlation between properties falling in entirely different real estate markets within the GTA. A more appropriate approach would be to estimate semi-variograms for apparently homogenous real markets such as the City of Toronto.

The computationally intensive algorithm generates millions of pairs of points and estimates average differences in the observed values. Figure 5.2 reveals that for az=67.5, price differences were calculated for more than 100,000 pairs for distances between 25 and 45 kilometres. Again, these pairs resulted from a small sample of 3000 properties. The numbers of pairs at various lag intervals (distances) for different azimuths in Figure 5.2 indicate how variograms reflect the spatial structure in estimation. A look at the spatial distribution of properties, shown in Chapter 4 reveals that the GTA does not spreads exactly in east-west direction, but rather in north-east — south-west direction. Now going back to Figure 5.2, one can see that maximum number of pairs selected for various lag increments were reported for az=62.5, followed by north-south (az=0) and east-west (az=45), reflecting the geography of the region.

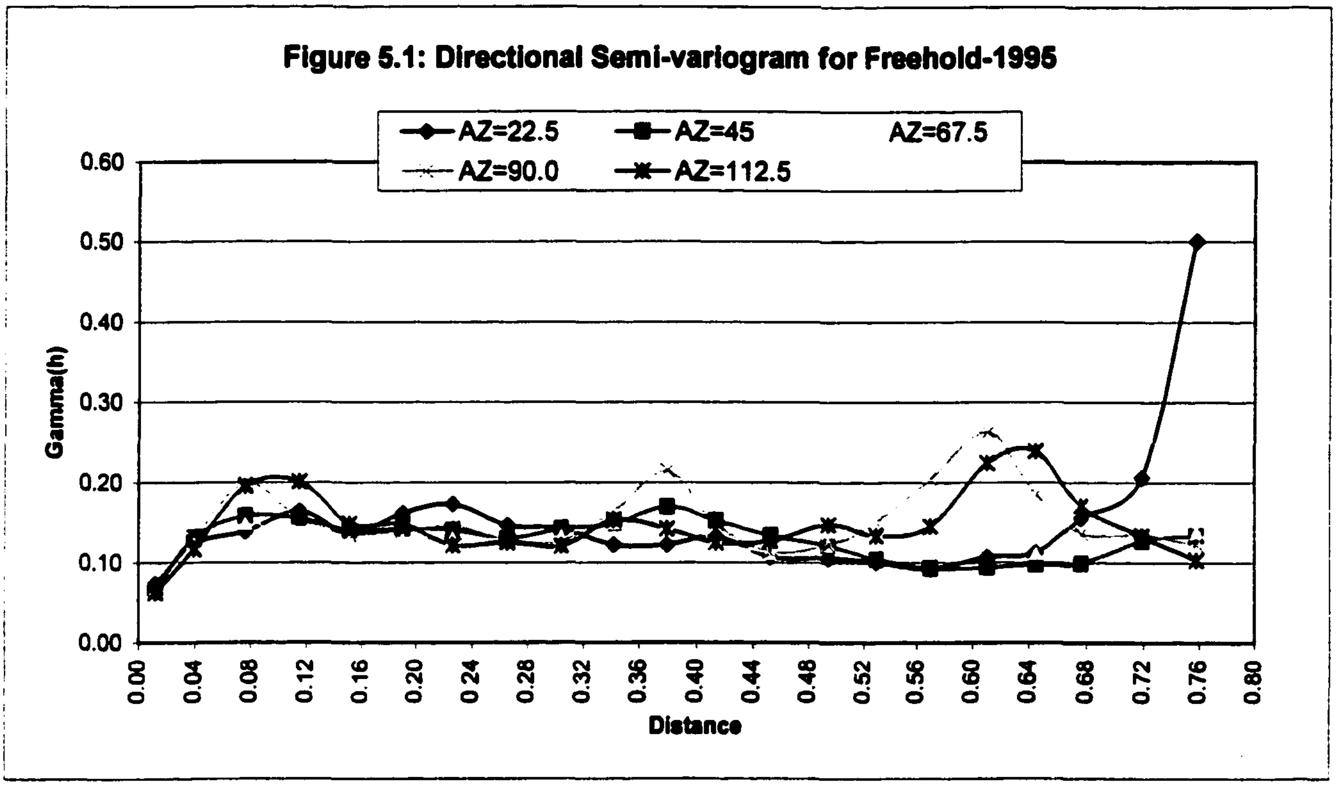


Figure 5.1: Directional Semi-variogram for Freehold-1995
AZ=22.5
AZ=45
AZ=67.5
AZ=90.0
AZ=112.5
Gamma(h)
0.60
0.50
0.40
0.30
0.20
0.10
0.00
0.00
0.04
0.08
0.12
0.16
0.20
0.24
0.28
0.32
0.36
0.40
0.44
0.48
0.52
0.56
0.60
0.64
0.68
0.72
0.76
0.80
Distance

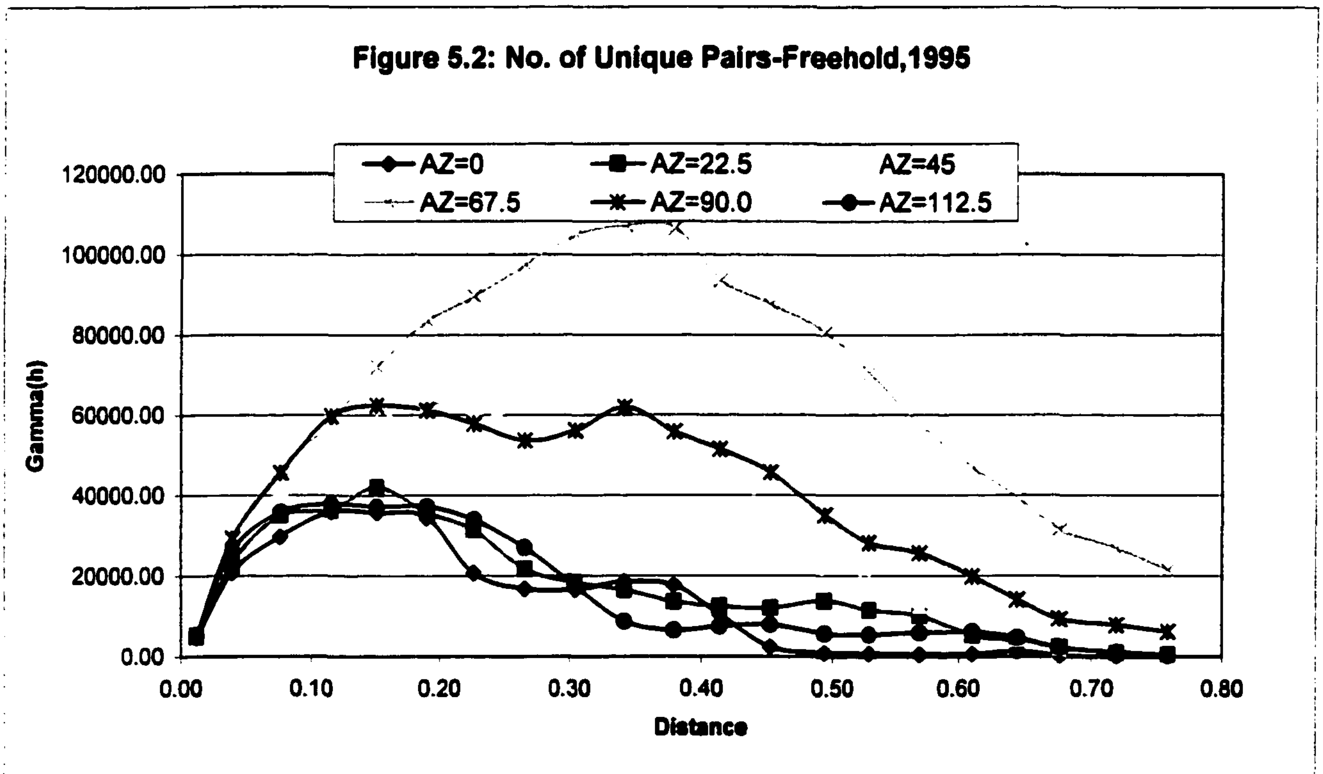


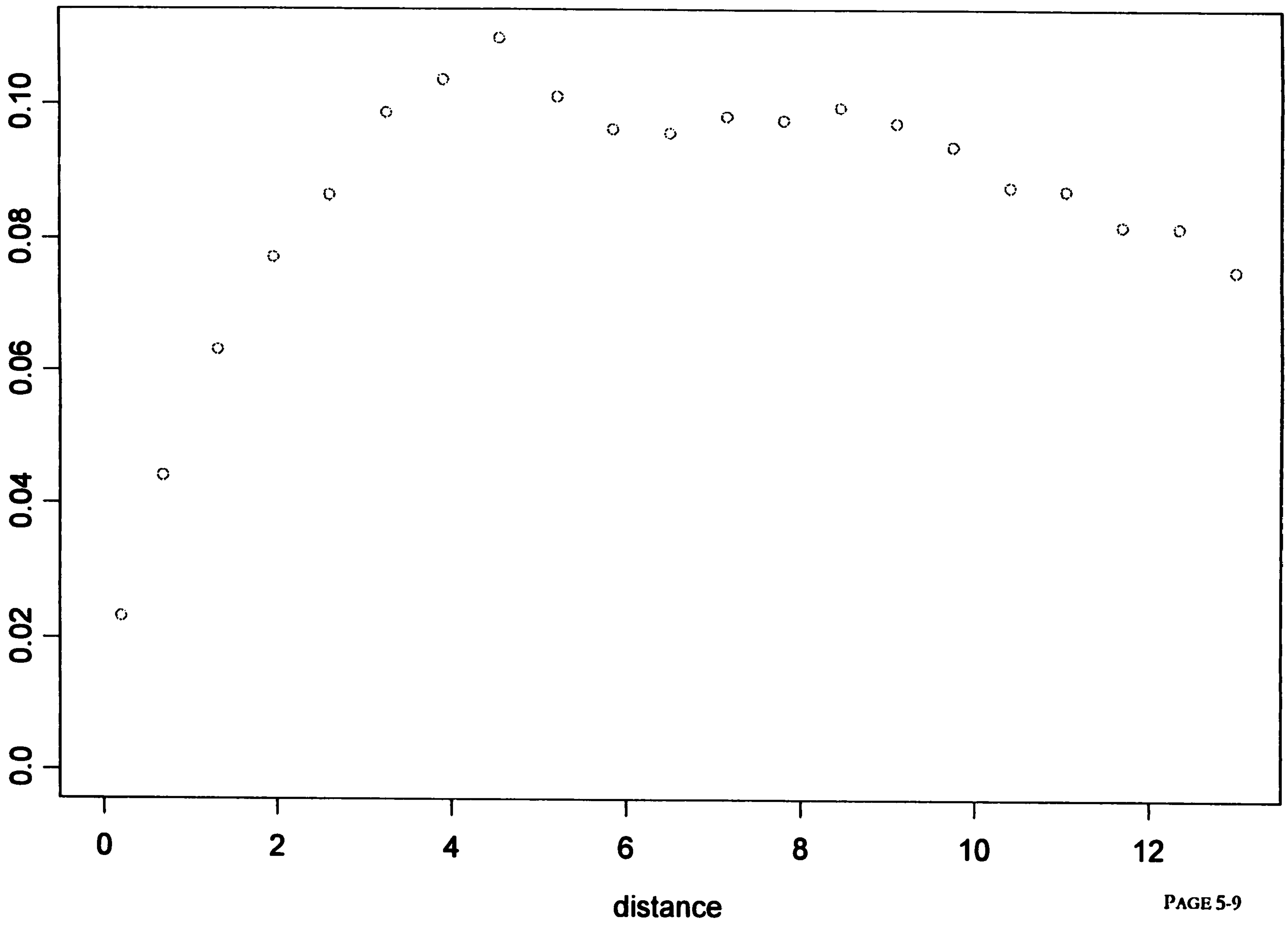
Figure 5.2: No. of Unique Pairs-Freehold,1995
AZ=0
AZ=22.5
AZ=45
AZ=67.5
AZ=90.0
AZ=112.5
Gamma(h)
120000.00
100000.00
80000.00
60000.00
40000.00
20000.00
0.00
0.00
0.10
0.20
0.30
0.40
0.50
0.60
0.70
0.80
Distance

The omni-directional variogram (where h has only magnitude and no direction) estimated for freehold properties sold during 1995 in the City of Mississauga shows that at a distance of 4 kilometres, housing values are no more spatially correlated. This could be seen by the increasing value of γ (h) in Figure 5.3 up to a distance of 4 kilometres, where it ceases to increase with distance. This suggests that property values are influenced by the price of other properties at a distance of approximately 4 kilometres. Beyond that distance, housing values are no longer correlated. These results offer a contrast to the previously estimated semi-variogram for entire GTA. The results from the GTA semi-variogram indicated that prices were correlated up to 10 kilometres.

The directional semi-variograms in Figure 5.4 reported for the old City of Toronto returned results similar to that of City of Mississauga. These results are similar for the fact that housing values seem to be correlated up to 4-km (0.038 x 110). The directional variogram, however, explicitly indicates presence of anisotropy in housing data. Consider the fact that the shape of semi-variogram changes with direction, indicating that spatial autocorrelation in data also changes in magnitude and direction for the same lag intervals. Variograms for az=0 and 22.5 are similar to the one reported for City of Mississauga. However, semi-variograms for azimuths 45 and 62.5 return generally increasing variograms. While variograms for azimuth 90 and 112.5 indicate that prices are correlated for distances greater than 5 kilometres. The difference in range for directional variograms is reflective of the spatial structure of the City of Toronto.

From the previous discussion we conclude that spatial autocorrelation is very much present in housing values and also indicate presence of anisotropy. Though semi-variograms suggest that property values are not correlated beyond a distance of 4-km, we however, used a cut-off point of 2-km to calculate the spatial lag variable. Our decision was based on the fact that for smaller areas, semi-variograms return smaller ranges. In addition, the 2-km grid structure imposed on the GTA in shape of major roads also influenced our decision to use a 2-km cut-off for spatial lag variable calculations.

Figure 5.3- Omni-Directional Variogram for Mississauga, 1995-Freehold



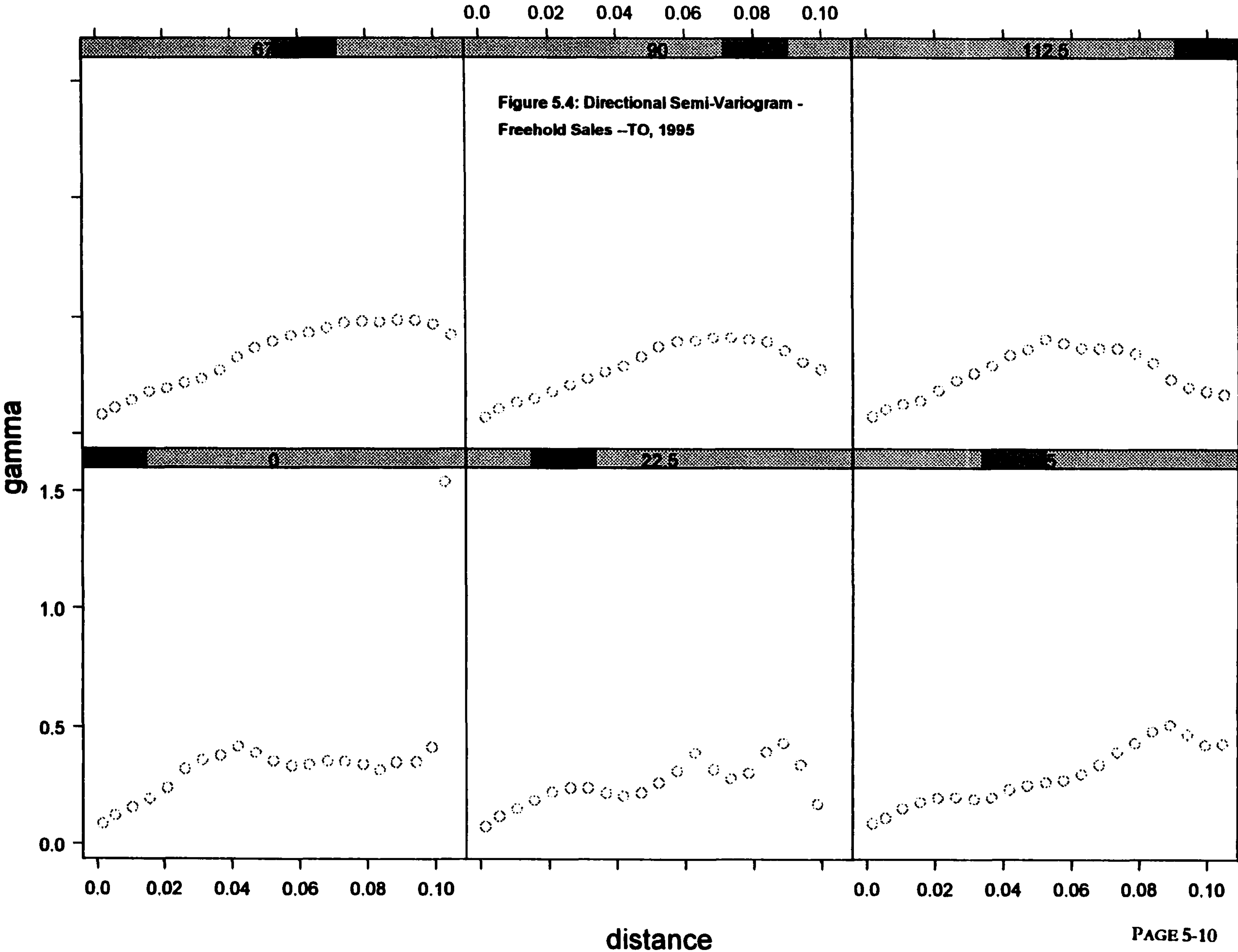


Figure 5.4: Directional Semi-Variogram -
Freehold Sales --TO, 1995

Equation 2.28 in Chapter 2, reproduced below, describes the model specification for hedonic price indices estimated in this section.

$$P_{it} = \alpha + \rho \sum_j w_{ij} P_{j,t-m} + \sum_k \beta_k S_{ik} + \sum_l \gamma_l N_{ilt} + \xi_{it}$$

The main difference between spatial autoregressive models and least square models is that spatial models include a spatial lag term as an additional explanatory variable.

Hundreds of possible explanatory variables could have been included in the model. However, the initial steps in model estimation, based on the relationships discovered during Chapter 4, focussed on limiting the number of explanatory variables to be included in the hedonic models. Including a large number of variables in the model could influence statistical validity due to multicollinearity, which exists in the explanatory variables. Standard statistical procedures are available to prevent multicollinearity. One such procedure is Principle Component Analysis (PCA), which was adopted, in a previous study to model Hedonic prices (Saccomanno, 1979). Though PCA controls for multicollinearity, details on the behaviour of individual variables are lost. Saccomanno (1979) and Can and Megbolugbe (1997) used Factor Analysis to bundle together uncorrelated variables and introduced the bundled variables as individual variable in the model. "Individual variables can reveal more of the variation in housing types than the aggregations obtained from factor analysis; the distinction being lost in the simplification," Saccomanno (1979, page 52).

This study relies upon the use of Variance Inflation Factors (VIF) to check multicollinearity within the explanatory variables. VIF will be discussed later with the final selected models. Results from initial regression analysis revealed presence of heteroskedasticity in the data. It was corrected by using natural log transformations of the dependent variable and some explanatory variables. For log transformed model, residuals plotted against predicted value did not indicate a rising trend. In addition, throughout this research step-wise regression procedures were used to select variables. The significance level, α, to include a variable was equal to 0.05, and for removal α = .10.

The initial concern during the analysis was to identify those variables that explain the maximum variance in housing prices. Structural attributes of housing, neighbourhood characteristics, and derived locational variables were thus divided into 29 groups. These groups were individually regressed on the dependent variable, natural log of housing price. Table 5.4 presents the results from the above-mentioned analyses conducted on 1987 data set. Only those variables within a group, which returned statistically significant results, are reported in Table 5.4.

The spatial lag variable was the only variable in group 1. It could be seen from Table 5.4 that 39% of variance in housing values was explained by the lag variable alone. Herein after, we discovered that the explanatory power of spatial lag variable improved significantly for later years. This could have resulted from the fact that spatial lag variable for properties sold during the first six months in 1987 suffered from lack of data. Since spatial lag variable was estimated on prior sales of similar properties during the past six months, hence properties sold during the first six months suffered from insufficient data. It should be noted that the R-square values reported for explanatory variables in Table 5.4 are to be used only to compare variables within a group. Cross-group comparisons were not intended by these results. In addition, the explanatory powers should not be attributed entirely to individual variables. For example, variable park_cap explains 14.5% variance in housing values. This variable also serves as a proxy for housing size, since large houses have relatively more parking capacity than smaller houses. Thus attributing the significance to the variable itself would lead to erroneous conclusions.

It was initially believed that mortgage rates and CPI would be very significant in a multivariate analysis to explain the variance in housing prices. The results, however, were contrary to the expectations. Monthly mortgage rates were regressed on log of sale price for variables in group 2. It was realised that only 1.5% of variance in housing prices was explained by the economic variables. It is hypothesised that economic variables would return better results for long run models.

Structural attributes of housing units related to size, such as no of rooms, washrooms and bedrooms, returned the most significant structural attribute, i.e., number of washrooms. It was learnt during the analysis that housing prices respond the most to the number of washrooms. The data set did not differentiate between full and half washrooms. Number of washrooms explained 24% of the variance in housing prices. Number of washrooms and number of rooms are highly correlated. We did not include number of rooms in our final models as an explanatory variable. However, the model was weighted by number of rooms to control for increase in variance of residuals with the increase in the value of dependent variable. During the explanatory data analysis in Chapter 4, we discovered a linear relationship between the number of rooms and sale price. Hence, using number of rooms as a weighting variable, we controlled heteroskedasticity and improved the fit of the model. Number of bedrooms was a significant variable in the final models and was not correlated with number of washrooms.

Housing values are very sensitive to the availability of parking places in the GTA. Despite an excellent transit system, 90% of Vehicle Kilometre Travelled (VKT) are automobile-based. In addition, there has been a consistent increase in the household auto-ownership rate. Group 5 in the Table 5.4 shows that parking capacity explained 14.5% of the variance in housing prices.

Trend variables, actual longitude and latitude of housing units explained less than 1% of variance. Similarly, the set of locational binary variables, controlling for accessibility premiums for individual housing, also failed to explain significant variance in housing values. Though the coefficients returned expected signs, a negative for beach variable, and a positive for subway variable, yet all such variables explained only 3% of the variance in housing values. The peculiar results of locational variables offer some insights into spatial distribution of housing values in the GTA. Apart from beach and subway variables, the analysis in Chapter 4 revealed that locational premiums or penalties were not significant enough to contribute in explaining variances in housing values. It could be deduced from these results that housing values are not significantly sensitive to proximity to beach, subway system, or highways.

Housing values were regressed on distances between individual properties and the ten regional shopping centres. D_Ydale (Distance from Yorkdale Mall, the largest shopping centre in the region) turned out to be the most significant variable, followed by distance from CBD, D_CBD, and the second largest mall, Eaton Centre in downtown Toronto. Later, during the development of spatial hedonic models, it was realised that D_CBD performed better than D_Ydale. Distance from shopping centres explained 11% of variance in housing values, which is indicative of the influence of regional shopping centres on land use.

Structural composition of the existing housing stock in the neighbourhood explained little variance in housing values. Group 9 comprised of counts of housing units by type for each CT, reported in the last available census. Similarly, period of construction of housing units, used in the model as a proxy for average age of the housing units, failed to explain variance in housing values.

Group 12 in Table 5.4 returned a very significant result of this study. Log of housing values when regressed on average price of housing stock per CT, reported in the last census, explained 36% of the variance in housing values. This result was amazing since this variable was behaving in a very similar fashion to that of the spatial lag variable. The average price of housing stock by CT also acts as a lag variable. It could be argued that the price of a housing unit is influenced by the average price of housing stock reported for the neighbourhood. In this particular instance boundaries of neighbourhood are the same as the boundaries of the respective CT.

The spatial analyses of housing values in Chapter 4 revealed that high-valued housing units concentrated in CTs where a higher percentage of residents had university degrees. These observations were confirmed when housing values were regressed on variables indicating education attainment of residents in the CT. Education attainment variables explained 26% of variance in housing values. These results are very significant when compared with R-square of other groups. Though it should be noted that individuals with university degrees are known to be financially well off and thus could afford to live in large houses, which are more expensive. Thus the variable "Edu_univ" is also capturing influence of income, housing size, and other correlated variables.

The fact that education attainment is correlated with income and housing size is best demonstrated by the results for Group 15. Under labour force statistics, several variables, such as employment statistics and income levels, were bundled together before housing values were regressed on them. The most significant variable identified under this group was average income in a CT that explained 22% of variance in housing values. Other variables returned insignificant coefficients. These results indicate that as the income potential of households increase, their ability to spend more on housing also increases. These results contribute to the on-going debate about the influence of income on housing values. There has been a disagreement over the significance of income variables in hedonic price models. Models developed for the study returned significant results for income variables. The sign of coefficient for variable "participation rate" was negative, suggesting multicollinearity between income variable and participation rate.

Statistics on mobility, for example the number of mover households, did not offer many insights into variance in housing values. Identical results were obtained for variables explaining presence of young children in households. For lifestyle variables, divorced explained 8% of variance in housing value. The fact that high-valued housing units were concentrated in CTs with higher percentage of divorced individuals could explain the correlation. However, further analysis is needed to explain why counts of divorced individuals are significant in explaining housing values.

The average CT housing value of properties sold in 1987 explained 37% of the variance in housing values. However, this variable is not a true lag variable, since the individual properties sold in 1987 were included in calculating the CT average prices. Structural type of housing explained 17% of the variance in housing prices. The two most significant variables under this category were Detached Housing and Three-storey housing, explaining 7% and 6.9% variance respectively. These variables returned significant values in models developed later during the analysis. Brick exterior was the most significant in group 24, explaining 4% of the variance.

During the explanatory data analysis in Chapter 4, strong relationships were discovered between swimming pools and housing values. However, in a multivariate analysis variables representing the presence of pools did not return significant results. Attached garages were found to be more significant than the detached garages. In addition, the positive sign for garage coefficient indicates that the price of housing increases with number of garages. It was learnt later during model estimation that parking capacity was a better determinant of housing values than garage variables. Since parking capacity and garage variables are correlated, only parking capacity was used as an explanatory variable in model estimation.

Variables that explained presence of fireplaces, and the presence of multiple fireplaces were found to be very significant in explaining housing values. The binary variable "Fire_no" explained 14% of variance in housing values. The negative sign indicates that value of housing will be less for houses without a fireplace. Again, presence of multiple fireplaces will significantly increase the housing values.

Comfort variables, such as centralised air conditioning and heating arrangements were significant in explaining housing values. The variable "CAC" explained 6% variance in housing value, which shows that air-conditioned housing units attract more value than the ones without air-conditioning. Results from variables on basement returned surprisingly insignificant results. It was hypothesised that housing units with finished basements would sell for significantly higher prices. However, regression results indicate that the state of basement has little, if any effect on housing values. The positive sign on the variable related to finished basement suggests that housing with finished basement will attract higher price than the rest.

Detailed regression results for this analysis are documented in Appendix A.

Table 5.4: Results from regression on variables aggregated in 29 groups

No.	CATEGORY	Significant Variable	Explained Variable	Sign of Estimated
			(Adjusted R-square)	Coefficient
1	Lag variable	Lag_var	38.80%	(+)
2	Mortgage rates		1.40%	
3	Structural Attributes		28.00%	
		No_wash	24.00%	(+)
		Beds + Washrooms	3.70%	(+)
4	List Price		67.40%	(+)
5	Parking capacity	Park_Cap	14.50%	(+)
6	Trend Variables	Long/Lat	< 1%	
7	Locational Variables		2.90%	
		Beach	1.70%	(-)
		Subway	0.80%	(+)
8	Distance		11.00%	
		D_Ydale	4.70%	(-)
		D_CBD	1.80%	(+)
		D_Est	0.70%	(-)
9	Housing Stock from 1986 Census		7.40%	
		Own_Oth	4.60%	(-)
		Oth_Dwl	1.80%	(+)
10	Period of construction		1.40%	
11	Persons per room		17.40%	
		PPRoom	14.10%	(-)
12	Avg. Housing Price / CT		36.00%	(+)
13	Population/Demographics		4.90%	
		POPLT15	2.20%	(-)
		POPUL	1.00%	(+)
		POP15-39	1.30%	(+)
14	Education Attainment		26.00%	
		Edu_Univ	15.20%	(+)
		Edu_dipl2	9.00%	(-)
15	Labour force		25.00%	
		Avg_Inc	21.70%	(+)
		Par_Rate	2.30%	(-)
		UE Rate	—	
		Unemployed	—	(+)
16	Mobility		1.30%	
17	Census family		30.00%	
		CF_AVINC	26.00%	(+)
		FAAVKID	2.10%	(-)
18	Marital Status		10.00%	
		Married	1.10%	(-)
		Divorced	8.40%	(+)
19	Shelter Costs		21.00%	
		SH_LT2H	4.00%	(-)
		SH_7TO1K	4.40%	(-)
		SH_1KP	9.40%	(+)

20	Avg. CT Sale Price, 1987	CT_AVP	37.20%	(+)
21	Parking		2.30%	
		Park_Prv	1.80%	(+)
22	Housing Type		16.90%	
		Detached	7.00%	(+)
		Three Storey	6.90%	(+)
24	Exterior		4.40%	
		Brick	4.00%	(+)
		Stone	0.30%	(+)
25	Pool		2.30%	
		Pool (in ground)	1.90%	(+)
		Indoor Pool	0.40%	(+)
26	Garage		14.40%	
		Gar_dbla	12.20%	(+)
		Gar_dbld	1.50%	(+)
27	Fire Place		22.50%	
		Fire_No	13.70%	(-)
		Fire_Mult	7.60%	(+)
28	Air Conditioning		11.20%	
		Air_condominium	6.30%	(+)
		H_Watgas	3.00%	(+)
		H_Watoil	1.50%	(+)
29	Basement			
		Base_Fin	—	(+)

DEVELOPMENT OF SPATIAL AUTOREGRESSIVE MODELS

Only selected models will be discussed in this section for brevity. Detailed results for these models are carried in Appendix M. Models are referred by the same Table number in Appendix M to maintain consistency. Table 5.5 presents details of the best-fit model for the 1987 data set. As it can be seen from the Table 5.5, that the model explains 75% of variance in housing values. All coefficients are significant at the 95% confidence interval. To check multicollinearity within the explanatory variables, VIF were applied. VIF are explained in detail in Kutner (1997, pp. 385-388). In brief, variables are first transformed using correlation transformation and then models are estimated. The estimated coefficients are in fact standardised coefficients. The diagonal elements of the variance covariance matrix of estimated standardised coefficients are called VIF. If, for a coefficient, the value of VIF is greater than 10, it is assumed that the variable is correlated with other explanatory variables. VIF even detects multicollinearity that could not be detected in the pair-wise coefficients of simple determination. When VIF =1, it suggests that the variable is not correlated with other variables. The average value of VIF, say z, reveals that the expected sum of squared errors in the least squares standardised regression coefficients is nearly z times as large as it would be if the explanatory variables were uncorrelated.

VIF values in Table 5.5 reveal that none of the explanatory variables violated the critical threshold. The low values for VIF suggest no or little multicollinearity in explanatory variables. The dependent variable was log_pric, while the model was weighted by number of rooms.

In order to explore non-linear relationships, different transformations were tried on variables. However, these transformations failed to return better results. In Table 5.6, results from two models are presented. Both these models are non-weighted models. Model 1 was estimated by excluding variable "Beds". Model 2 was estimated by adding the square of variable Beds. Adding Beds-square improved the model, yet the improvement was the same as adding variables Beds to the equation. For both models all variables were significant at 95% confidence interval and coefficients returned expected signs. A comparison of models in Tables 5.5 and 5.6 reveal that the weighted model is a better fit than the non-weighted models.

Log_Lag variable was replaced by CT_AVP (average price of housing stock by CT) in the model for comparison. Results from that model are presented in Table 5.7. It can be seen from the table that the explanatory power of the model dropped significantly as this model could explain only 70% of variance in housing values. In addition, VIF for variables CF_AINC and CT_AVP also increased, indicating mild multicollinearity. The coefficient for variable Gar_dbld also changed to negative due to multicollinearity. Thus, it could be argued that a well-specified weight matrix that incorporates the spatial structure of study area, would control for variable performance. Another interesting observation could be made about the confidence intervals, which are wider in Table 5.7. The spatial autoregressive model returned small confidence intervals for the estimated coefficients.

Table 5.5: Results from the best-fit model for 1987

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
1	.864	.747	.747	.4627	.747	5020.353	19	32347	.000

a Predictors: (Constant), D_CBD, BEDS_SQR, POOL_UG, BRICK, H_WATOIL, FIRE_MLT, GAR_DBLD, AIR_CON, DETACH, H_WATGAS, FIRE_NO, DIVORCED, CF_AINC, THREE_ST, NO_WASH, SUBWAY, PARK_PRV, PARK_CAP, LOG_LAG
b Dependent Variable: LOG_PRIC
c Weighted Least Squares Regression - Weighted by ROOMS

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20419.896	19	1074.731	5020.353	.000
	Residual	6924.681	32347	.214		
	Total	27344.579	32366			

a Predictors: (Constant), D_CBD, BEDS_SQR, POOL_UG, BRICK, H_WATOIL, FIRE_MLT, GAR_DBLD, AIR_CON, DETACH, H_WATGAS, FIRE_NO, DIVORCED, CF_AINC, THREE_ST, NO_WASH, SUBWAY, PARK_PRV, PARK_CAP, LOG_LAG
b Dependent Variable: LOG_PRIC
c Weighted Least Squares Regression - Weighted by ROOMS

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	5.128	.072		71.469	.000	4.987	5.268		
	SUBWAY	2.428E-02	.003	.030	8.112	.000	.018	.030	.565	1.770
	CF_AINC	2.794E-06	.000	.128	30.787	.000	.000	.000	.455	2.197
	DIVORCED	1.581E-04	.000	.034	10.432	.000	.000	.000	.731	1.368
	LOG_LAG	.537	.006	.380	88.187	.000	.526	.549	.422	2.372
	PARK_PRV	5.773E-02	.003	.069	17.803	.000	.051	.064	.527	1.898
	POOL_UG	7.623E-02	.005	.041	14.489	.000	.066	.087	.956	1.046
	DETACH	9.220E-02	.002	.123	39.330	.000	.088	.097	.798	1.253
	THREE_ST	9.718E-02	.005	.069	20.736	.000	.088	.106	.711	1.406
	BRICK	4.187E-02	.003	.044	15.228	.000	.036	.047	.934	1.071
	GAR_DBLD	1.132E-03	.005	.001	.206	.835	-.010	.012	.794	1.259
	FIRE_MLT	.130	.004	.090	30.029	.000	.122	.139	.866	1.155
	FIRE_NO	-5.494E-02	.002	-.076	-23.030	.000	-.060	-.050	.724	1.382
	AIR_CON	4.115E-02	.002	.052	16.962	.000	.036	.046	.834	1.199
	H_WATOIL	3.960E-02	.005	.022	7.521	.000	.029	.050	.920	1.087
	H_WATGAS	3.324E-02	.004	.024	8.106	.000	.025	.041	.869	1.151
	BEDS_SQR	8.243E-03	.000	.165	50.481	.000	.008	.009	.729	1.371
	PARK_CAP	4.632E-02	.002	.098	24.955	.000	.043	.050	.505	1.980
	NO_WASH	7.418E-02	.001	.199	57.870	.000	.072	.077	.663	1.508
	D_CBD	-6.161E-03	.000	-.165	-36.990	.000	-.006	-.006	.393	2.545

a Dependent Variable: LOG_PRIC
b Weighted Least Squares Regression - Weighted by ROOMS

Table 5.6: Results from non-weighted models.

Model Summary

	R	R Square	Adjusted R Square	Std. Error of the Estimate					
Model									
1	.842	.709	.709	.1891	.709	4266.577	19	33238	.000
2	.850	.723	.723	.1847	.013	1614.174	1	33237	.000

a Predictors: (Constant), H_WATGAS, POOL_UG, BRICK, H_WATOIL, GAR_DBLD, DETACH, FIRE_MLT, DIVORCED, AIR_CON, THREE_ST, NO_WASH, FIRE_NO, LOG_LAG, SUBWAY, PARK_PRV, GAR_DBLA, CF_AINC, D_CBD, PARK_CAP
b Predictors: (Constant), H_WATGAS, POOL_UG, BRICK, H_WATOIL, GAR_DBLD, DETACH, FIRE_MLT, DIVORCED, AIR_CON, THREE_ST, NO_WASH, FIRE_NO, LOG_LAG, SUBWAY, PARK_PRV, GAR_DBLA, CF_AINC, D_CBD, PARK_CAP, BEDS_SQR

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2898.309	19	152.543	4266.577	.000
	Residual	1188.355	33238	3.575E-02		
	Total	4086.664	33257			
2	Regression	2953.349	20	147.667	4330.677	.000
	Residual	1133.315	33237	3.410E-02		
	Total	4086.664	33257			

a Predictors: (Constant), H_WATGAS, POOL_UG, BRICK, H_WATOIL, GAR_DBLD, DETACH, FIRE_MLT, DIVORCED, AIR_CON, THREE_ST, NO_WASH, FIRE_NO, LOG_LAG, SUBWAY, PARK_PRV, GAR_DBLA, CF_AINC, D_CBD, PARK_CAP
b Predictors: (Constant), H_WATGAS, POOL_UG, BRICK, H_WATOIL, GAR_DBLD, DETACH, FIRE_MLT, DIVORCED, AIR_CON, THREE_ST, NO_WASH, FIRE_NO, LOG_LAG, SUBWAY, PARK_PRV, GAR_DBLA, CF_AINC, D_CBD, PARK_CAP, BEDS_SQR
c Dependent Variable: LOG_PRIC

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	5.014	.075		66.965	.000	4.867	5.161		
	NO_WASH	8.656E-02	.001	.234	66.628	.000	.084	.089	.709	1.410
	PARK_CAP	1.513E-02	.003	.032	5.633	.000	.010	.020	.268	3.735
	SUBWAY	2.029E-02	.003	.026	6.660	.000	.014	.026	.578	1.730
	D_CBD	-5.483E-03	.000	-.149	-31.802	.000	-.006	-.005	.401	2.494
	CF_AINC	2.815E-06	.000	.127	29.071	.000	.000	.000	.461	2.170
	DIVORCED	1.546E-04	.000	.034	9.867	.000	.000	.000	.737	1.357
	LOG_LAG	.551	.006	.388	86.714	.000	.538	.563	.438	2.285
	PARK_PRV	6.187E-02	.003	.076	18.673	.000	.055	.068	.531	1.884
	POOL_UG	7.623E-02	.006	.040	13.207	.000	.065	.088	.959	1.043
	DETACH	7.880E-02	.002	.107	32.428	.000	.074	.084	.809	1.237

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
	THREE_ST	.175	.005	.119	36.085	.000	.165	.184	.799	1.251
	BRICK	5.495E-02	.003	.060	19.623	.000	.049	.060	.928	1.078
	GAR_DBLA	8.753E-02	.004	.108	20.219	.000	.079	.096	.307	3.262
	GAR_DBLD	7.556E-02	.007	.043	11.589	.000	.063	.088	.630	1.587
	FIRE_MLT	.134	.005	.090	28.337	.000	.125	.143	.869	1.150
	FIRE_NO	-4.795E-02	.002	-.068	-19.533	.000	-.053	-.043	.729	1.371
	AIR_CON	4.026E-02	.003	.051	15.656	.000	.035	.045	.839	1.192
	H_WATOIL	4.829E-02	.005	.028	8.920	.000	.038	.059	.918	1.089
	H_WATGAS	5.630E-02	.004	.042	13.269	.000	.048	.065	.881	1.135
Model		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
2	(Constant)	5.179	.073		70.716	.000	5.035	5.322		
	NO_WASH	7.387E-02	.001	.200	56.501	.000	.071	.076	.668	1.497
	PARK_CAP	1.670E-02	.003	.036	6.366	.000	.012	.022	.268	3.736
	SUBWAY	2.285E-02	.003	.029	7.680	.000	.017	.029	.578	1.731
	D_CBD	-5.802E-03	.000	-.157	-34.424	.000	-.006	-.005	.400	2.500
	CF_AINC	2.892E-06	.000	.130	30.570	.000	.000	.000	.461	2.171
	DIVORCED	1.671E-04	.000	.037	10.915	.000	.000	.000	.737	1.357
	LOG_LAG	.534	.006	.376	85.853	.000	.521	.546	.436	2.296
	PARK_PRV	6.066E-02	.003	.074	18.746	.000	.054	.067	.531	1.885
	POOL_UG	7.034E-02	.006	.037	12.475	.000	.059	.081	.958	1.044
	DETACH	8.361E-02	.002	.113	35.187	.000	.079	.088	.807	1.240
	THREE_ST	.117	.005	.080	23.751	.000	.108	.127	.732	1.365
	BRICK	4.947E-02	.003	.054	18.067	.000	.044	.055	.926	1.080
	GAR_DBLA	6.783E-02	.004	.084	15.936	.000	.059	.076	.303	3.306
	GAR_DBLD	5.517E-02	.006	.032	8.637	.000	.043	.066	.626	1.597
	FIRE_MLT	.129	.005	.087	27.920	.000	.120	.138	.869	1.151
	FIRE_NO	-4.908E-02	.002	-.069	-20.474	.000	-.054	-.044	.729	1.372
	AIR_CON	4.276E-02	.003	.054	17.018	.000	.038	.048	.838	1.193
	H_WATOIL	4.274E-02	.005	.024	8.081	.000	.032	.053	.918	1.090
	H_WATGAS	4.253E-02	.004	.032	10.230	.000	.034	.051	.875	1.143
	BEDS_SQR	7.222E-03	.000	.136	40.177	.000	.007	.008	.727	1.376

a Dependent Variable: LOG_PRIC

Table 5.7: Replacing CT_AVP in place of Log_Lag variable.

Model Summary

	R	R Square	Adjusted R Square	Std. Error of the Estimate					
1	.840	.706	.706	.4990	.706	4116.124	19	32580	.000

a Predictors: (Constant), CT_AVP, D_CBD, BRICK, POOL_UG, GAR_DBLD, H_WATOIL, BEDS_SQR, AIR_CON, FIRE_MLT, DETACH, H_WATGAS, FIRE_NO, DIVORCED, THREE_ST, NO_WASH, SUBWAY, PARK_PRV, PARK_CAP, CF_AINC

b Dependent Variable: LOG_PRIC
c Weighted Least Squares Regression - Weighted by ROOMS

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19471.418	19	1024.811	4116.124	.000
	Residual	8111.601	32580	.249		
	Total	27583.019	32599			

a Predictors: (Constant), CT_AVP, D_CBD, BRICK, POOL_UG, GAR_DBLD, H_WATOIL, BEDS_SQR, AIR_CON, FIRE_MLT, DETACH, H_WATGAS, FIRE_NO, DIVORCED, THREE_ST, NO_WASH, SUBWAY, PARK_PRV, PARK_CAP, CF_AINC
b Dependent Variable: LOG_PRIC
c Weighted Least Squares Regression - Weighted by ROOMS

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	7.137	.087		82.261	.000	6.967	7.307		
	SUBWAY	3.118E-02	.003	.039	9.696	.000	.025	.037	.567	1.765
	CF_AINC	1.873E-06	.000	.085	13.440	.000	.000	.000	.224	4.471
	DIVORCED	2.826E-04	.000	.061	17.441	.000	.000	.000	.739	1.353
	PARK_PRV	5.643E-02	.003	.067	16.213	.000	.050	.063	.530	1.888
	POOL_UG	.101	.006	.055	17.827	.000	.090	.112	.955	1.047
	DETACH	.100	.003	.134	39.679	.000	.095	.105	.800	1.250
	THREE_ST	9.229E-02	.005	.065	18.237	.000	.082	.102	.708	1.412
	BRICK	4.986E-02	.003	.053	16.901	.000	.044	.056	.935	1.070
	GAR_DBLD	-2.320E-03	.006	-.001	-.396	.692	-.014	.009	.793	1.261
	FIRE_MLT	.145	.005	.100	31.156	.000	.136	.154	.868	1.152
	FIRE_NO	-6.039E-02	.003	-.063	-23.508	.000	-.065	-.055	.721	1.386
	AIR_CON	6.079E-02	.003	.077	23.433	.000	.056	.066	.841	1.189
	H_WATOIL	4.869E-02	.006	.027	8.606	.000	.038	.060	.921	1.086
	H_WATGAS	3.519E-02	.004	.026	7.971	.000	.027	.044	.869	1.151
	BEDS_SQR	9.256E-03	.000	.185	52.852	.000	.009	.010	.735	1.360
	PARK_CAP	5.098E-02	.002	.106	25.396	.000	.047	.055	.496	2.006
	NO_WASH	7.510E-02	.001	.201	54.454	.000	.072	.078	.662	1.510
	D_CBD	-8.893E-03	.000	-.241	-52.529	.000	-.009	-.009	.429	2.332
	CT_AVP	.387	.008	.321	49.568	.000	.372	.402	.215	4.655

a Dependent Variable: LOG_PRIC
b Weighted Least Squares Regression - Weighted by ROOMS

Table 5.8: Step-wise Spatial Autoregressive Models for 1995.

Model Summary

R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics	Durbin-Watson

Model					R Square Change	F Change	df1	df2	Sig. F Change	
1	.807	.651	.651	.6813	.651	50337.057	1	26929	.000	
2	.871	.759	.759	.5499	.108	12014.806	1	26928	.000	
3	.881	.776	.776	.5297	.017	2094.288	1	26927	.000	
4	.889	.791	.791	.5122	.015	1877.676	1	26926	.000	
5	.895	.801	.801	.4997	.010	1362.716	1	26925	.000	
6	.898	.806	.806	.4930	.005	738.792	1	26924	.000	
7	.902	.813	.813	.4846	.006	933.052	1	26923	.000	
8	.905	.819	.819	.4765	.006	932.106	1	26922	.000	
9	.907	.823	.823	.4715	.004	573.739	1	26921	.000	
10	.908	.825	.825	.4683	.002	363.496	1	26920	.000	
11	.910	.827	.827	.4655	.002	327.662	1	26919	.000	
12	.910	.829	.829	.4633	.002	258.017	1	26918	.000	
13	.911	.830	.830	.4622	.001	127.747	1	26917	.000	
14	.911	.831	.830	.4612	.001	122.620	1	26916	.000	
15	.912	.831	.831	.4604	.001	97.623	1	26915	.000	
16	.912	.832	.831	.4599	.000	55.855	1	26914	.000	
17	.912	.832	.832	.4594	.000	56.590	1	26913	.000	
18	.912	.832	.832	.4591	.000	44.688	1	26912	.000	
19	.912	.832	.832	.4588	.000	33.126	1	26911	.000	
20	.912	.833	.832	.4585	.000	31.553	1	26910	.000	
21	.913	.833	.833	.4584	.000	19.437	1	26909	.000	
22	.913	.833	.833	.4582	.000	16.288	1	26908	.000	
23	.913	.833	.833	.4582	.000	.382	1	26910	.536	
24	.913	.833	.833	.4581	.000	21.194	1	26908	.000	
25	.913	.833	.833	.4580	.000	13.426	1	26907	.000	
26	.913	.833	.833	.4579	.000	9.621	1	26906	.002	
27	.913	.833	.833	.4576	.000	29.818	1	26905	.000	
28	.913	.833	.833	.4576	.000	4.275	1	26904	.039	1.972

a Predictors: (Constant), LOG_LAG
b Predictors: (Constant), LOG_LAG, NO_WASH
c Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT
d Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH
e Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS
f Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC
g Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD
h Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP
i Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO
j Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON
k Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6
l Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS
m Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG
n Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT
o Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST

p **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS
q **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC
r **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL
s **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND
t **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1
u **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID
v **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034
w **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034
x **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY
y **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED
z **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED, BEACH
aa **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED, BEACH, BEACH_1
bb **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED, BEACH, BEACH_1, MALL_25
cc **Dependent Variable**: LOG_PRIC
dd **Weighted Least Squares Regression - Weighted by ROOMS**

Table 5.9: Best reduced Model for 1995 freehold sales

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
15	Regression	28084.023	15	1872.268	8833.865	.000
	Residual	5704.422	26915	.212		
	Total	33788.445	26930			

o **Predictors**: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST

Unstandardized	Standardized	t	Sig.	95% Confidence Interval

		Coefficients		Coefficients			Interval for B		Statistics	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
15	(Constant)	5.123	.068		75.740	.000	4.991	5.256		
	LOG_LAG	.529	.006	.406	92.240	.000	.517	.540	.323	3.096
	NO_WASH	8.910E-02	.001	.231	67.048	.000	.086	.092	.531	1.885
	FIRE_MLT	.127	.004	.097	34.265	.000	.120	.134	.787	1.270
	DETACH	9.235E-02	.003	.096	34.148	.000	.087	.098	.796	1.257
	BEDS	5.297E-02	.001	.114	36.207	.000	.050	.056	.632	1.581
	CF_AVINC	2.383E-06	.000	.151	39.003	.000	.000	.000	.418	2.395
	D_CBD	-3.506E-03	.000	-.106	-30.751	.000	-.004	-.003	.524	1.906
	PARK_CAP	4.840E-02	.002	.094	28.175	.000	.045	.052	.558	1.793
	FIRE_NO	-6.403E-02	.003	-.071	-23.558	.000	-.069	-.059	.694	1.440
	AIR_CON	4.964E-02	.002	.057	21.215	.000	.045	.054	.858	1.166
	KIDS_LT6	-6.047E-05	.000	-.041	-14.044	.000	.000	.000	.719	1.390
	SENIORS	7.254E-05	.000	.051	17.526	.000	.000	.000	.745	1.343
	POOL_UG	4.948E-02	.004	.030	11.530	.000	.041	.058	.940	1.064
	IMMIGRNT	-3.485E-06	.000	-.027	-10.145	.000	.000	.000	.881	1.135
	THREE_ST	5.401E-02	.005	.028	9.880	.000	.043	.065	.789	1.268

a Dependent Variable: LOG_PRIC
b Weighted Least Squares Regression - Weighted by ROOMS

Numerous Hedonic model specifications were tested by estimating year-by-year models. In the following section, models estimated for 1995 are discussed. Different specifications of spatial and non-spatial models are compared. As mentioned earlier, model fits were improved as we moved from 1987 to 1995. Table 5.8 documents results from stepwise spatial autoregressive models estimated on 1995 data sets. It can be seen that at least 83% variance in housing values was explained by models 14 to 29. A detailed examination of the results indicates that the spatial lag variable accounts for 65% of variance in housing values. Models estimated for 1987 revealed that spatial lag variable explained less than 40% of variance in housing values. These results are consistent with the initial spatial autocorrelation analysis, where value for Moran's I increased for 1995 data set. It could be seen from the table that up to model 15, each additional variable contributed to the explaining power of the model. However, additional variables in models 16 to 28 improved explaining power of the models by only 0.2%. We can conclude that variables added to the equation after model 15 did not contribute significantly to the model.

The Durbin Watson statistic returned a value of 1.972, indicating absence of temporal autocorrelation. Since the data used for the study are cross-sectional data, hence Durbin Watson statistic does not truly apply in this case.

Table 5.9 carries detailed results for Model 15 in Table 5.8. It could be seen from Table 5.8 that all variables were significant at the 95% confidence interval. In addition, estimated coefficients returned expected signs and VIF values indicate that variables are not correlated with each other. All else being equal, the price of a unit will increase with the increase in number of washrooms. It is also true for number of bedrooms. If average income of census families increases in a CT, housing values are expected to respond with an increase, all else being equal. Similarly, the increase in parking capacity results in the increase of housing value. Binary variables representing centralised air-conditioning, detached housing, pool, multiple fireplace, and three-storey housing has positive influence on housing values. Price of housing decreases with distance from CBD, all else being equal. The number of older people in a CT also have a positive influence on housing values, while new immigrants have a negative influence on housing values in the GTA. If the number of immigrants in a CT increases, housing values decrease correspondingly. Table 5.8 in Appendix M carries detailed results for the spatial autoregressive models mentioned in Table 5.8 in this Chapter.

Similar models were estimated using CT_AVP (Average price of housing stock by CT) using stepwise regression techniques. The results for those models are not reported only in Appendix M in Table 5.10. The fact that spatial lag variable, log_lag, offered a better fit is best demonstrated by a comparison of Tables 5.8 and 5.10 in Appendix M. The true spatial autoregressive model returned an R-square of 83% against a smaller R-square of 81% for models using CT_AVP as the lag variable. There is not much difference between R-squares reported by two modelling approaches. However, there are significant differences that could only be observed if two models are thoroughly compared. For this purpose we will compare model 15 from Table 5.8 and 5.10. The major difference between the two models is that apart from different spatial lag variables, stepwise regression procedure selected different sets of variables. For example, model 15 in Table 5.10 has UNIVERS and MALE3034 as explanatory variables, which are missing in Model 15 in Table 5.8. Apart from different spatial lag variables, same variables were used for model estimation. Yet the use of different lag variables weighted variables differently in spatial autoregressive models.

The average value of VIF of Model 15 in table 5.8 is 1.59, while for one in Table 5.10 is 2.17. This indicates that explanatory variables are less correlated with each other in Table 5.8, suggesting a better fit. In addition, Model 15 in Table 5.8 reports tighter confidence intervals for coefficients than the other model.

Finally, a non-weighted, non-spatial model is presented in Table 5.11. This model is similar to the spatial autoregressive models except for the fact that this model lacks the spatial lag variable. This model offers a poorer fit, R-square = 73%. In addition, this model delivered counter-intuitive results. Unlike, previous models, the sign for coefficient for variable "Three_St" was negative, implying bigger houses sell for cheaper price.

Table 5.11: Non-weighted, non-spatial hedonic model for freehold properties in the GTA

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.858	.737	.737	.2139

a Predictors: (Constant), AIR_CON, UNIVERS, POOL_UG, THREE_ST, DETACH, FIRE_MLT, D_CBD, BEDS, IMMIGRNT, FIRE_NO, SENIORS, NO_WASH, CF_AVINC
b Dependent Variable: LOG_PRIC

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3512.934	13	270.226	5905.443	.000
	Residual	1253.790	27400	4.576E-02		
	Total	4766.723	27413			

a Predictors: (Constant), AIR_CON, UNIVERS, POOL_UG, THREE_ST, DETACH, FIRE_MLT, D_CBD, BEDS, IMMIGRNT, FIRE_NO, SENIORS, NO_WASH, CF_AVINC
b Dependent Variable: LOG_PRIC

Coefficients

		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
Model		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	11.325	.009		1254.759	.000	11.307	11.342		
	BEDS	7.775E-02	.002	.162	41.970	.000	.074	.081	.643	1.555
	NO_WASH	.107	.002	.265	62.950	.000	.104	.111	.541	1.850
	D_CBD	-7.479E-03	.000	-.236	-65.313	.000	-.008	-.007	.735	1.361
	SENIORS	6.464E-05	.000	.047	12.161	.000	.000	.000	.656	1.524
	IMMIGRNT	-2.255E-05	.000	-.056	-14.111	.000	.000	.000	.600	1.667
	UNIVERS	1.067E-04	.000	.125	26.476	.000	.000	.000	.432	2.315
	CF_AVINC	5.486E-06	.000	.329	70.559	.000	.000	.000	.442	2.264
	POOL_UG	5.546E-02	.005	.033	10.210	.000	.045	.066	.943	1.061
	DETACH	.115	.003	.124	36.773	.000	.109	.121	.846	1.182
	THREE_ST	-9.597E-03	.007	-.004	-1.323	.186	-.024	.005	.841	1.189
	FIRE_MLT	.149	.005	.107	31.071	.000	.139	.158	.803	1.245
	FIRE_NO	-.102	.003	-.118	-32.438	.000	-.108	-.096	.731	1.369
	AIR_CON	7.940E-02	.003	.094	28.258	.000	.074	.085	.866	1.154

a Dependent Variable: LOG_PRIC

Figure 5.1presents a scatter plot of standardised predicted values and standardised residuals for Model 15 in Table 5.8. A close look at Figure 5.1 could help rule out heteroskedasticity in data. A residual histogram for the same model is presented in Figure 5.2.

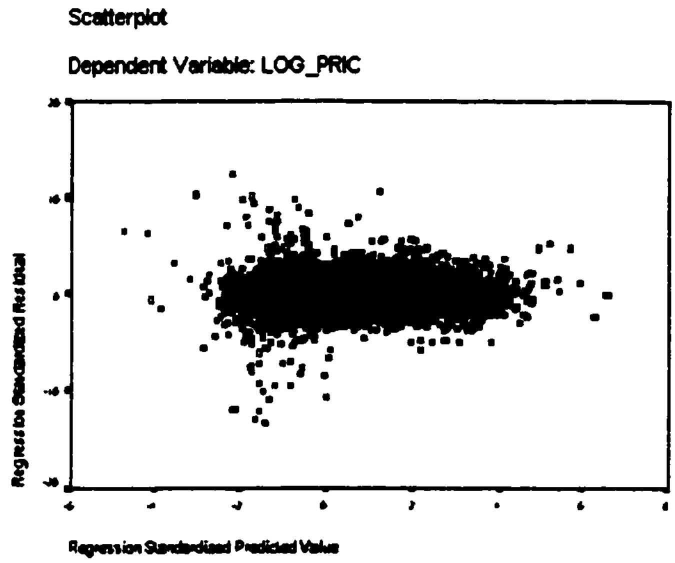


Figure 5.5: Scatter plot of standardised predicted values against standardised residuals, 1995.

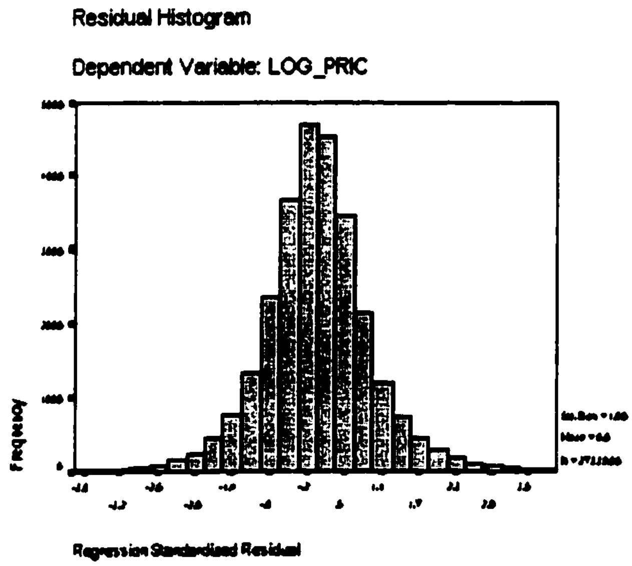


Figure 5.6: Standardised Residual histogram for Spatial Autoregressive Error Model.

CHAPTER 6

CONCLUSIONS AND RECOMMENDATIONS

This study explored the inter-metropolitan variation in housing values in a GIS-based Hedonic Model approach. Results from Chapter 4 and 5 unequivocally demonstrate the presence of spatial trends in housing values. Though the trends are explicitly detectable in maps generated for the study, a conclusive statement about spatial dependency could only be made when spatial autocorrelation in the data is quantified. Thus, Moran's I computations in Chapter 5 along with estimation of directional variograms were used to determine the extent of spatial dependency in the housing data.

Since housing data are geo-referenced records, where each observation has a unique address, a true spatio-temporal analysis is only possible within a GIS. The capacity to handle large spatial data sets, the ability to perform complex spatial queries and the opportunity to calculate spatial statistics is indeed possible only in a GIS. Numerous GIS packages, MapInfo ®, Transcad ®, and ArcInfo® were used during this study, since no one GIS computer package offers the depth and breadth in spatial analysis that was required.

Use of spatial autoregressive techniques is possible only if the data are properly geocoded, i.e., x- and y- coordinates are assigned to the geo-referenced data. The need for precise, detailed, and systematically updated digitized source maps for street networks, municipalities and other census boundaries was greatly felt during the study. We were able to achieve a very robust success rate of 89% in geocoding. This became possible only due to the availability of updated digitized maps. Another key issue related with geocoding is the need for accurate and most precise reporting of geo-referenced data. Typographical errors in address fields could result in the exclusion of those records, thus causing loss of valuable data. Strict quality control in documentation of real estate data is necessary and this control should be exercised at the source of data.

Numerous interesting relationships were discovered in the spatial analysis of the housing data. Better accessibility to certain desired features, such as the subway system, or proximity to a desired or a despised characteristic, such as a highway, showed an influence on property values. Properties situated very close to large shopping centres reported lower average values than the rest of the sample. Locational advantages for such properties were overshadowed by the nuisance of living close to commercial properties. Similarly, properties located near Toronto's lakeshore were sold for a lower price than the sample's average because of their old age and high cost of repairs and maintenance. Houses located near the subway system showed a definite premium in price due to locational advantages.

In a multivariate analyses, these locational variables did not return significant coefficients. It was observed that in a properly specified model, other explanatory variables will capture the locational effects. Even trend variables, the longitude and latitude of individual properties, were not significant predictors of housing values in the presence of other variables.

Locational variables, however, identified certain key trends in land use. For example, almost 50% of properties in the data were located within a 2-km distance of major highways in the GTA. Similarly, 46% of sold houses were located within a 5-km radius of the ten largest shopping centres in the GTA.

The analysis of spatial dependency in housing values formed the basis of Hedonic price models developed for freehold properties. We based our decision to apply spatial autoregressive techniques after quantifying spatial autocorrelation in the data, and not on the mere assumption of its presence. Spatial autoregressive models were, statistically speaking, far better than the non-spatial models. Spatial autoregressive models returned coefficients with narrow confidence intervals, and controlled for the behaviour of estimated coefficients. The spatial lag variable was the most significant variable in the Hedonic price models, explaining up to 60% of variance in housing values. When the spatial lag variable was excluded from model specification, not only the explanatory power of the model was compromised but at the same time estimated coefficients in the model returned counter-intuitive results.

Results reported in this study offer many insights into the behaviour of residential real estate markets, yet these results are far from being conclusive. The statistical robustness in spatial autoregressive models depends upon the specification of the spatial lag variable. If the lag variable is correctly specified, it will address the spatial autocorrelation in the dependent variable. However, there are no hard-and-fast rules about specifying the spatial lag variable. The methodology used in the study was borrowed from an earlier work by Can and Megbolugbe (1997). Though we tried to specify our lag variable on the basis of results from spatial autocorrelation, more research is needed in the specification of lag variable. In our study, we selected only those properties as comparable sales, which were sold within the radius of 2 kilometers during the last six months. A better understanding of spatial dependency could be achieved by calculating spatial lag variable at different lag intervals. For example, instead of selecting properties using a 2-km buffer, properties could be selected within a 1-km, 3-km or 4-km buffer. Similarly, the temporal lag could either be expanded or reduced. Models estimated with different spatial lag variables will offer more insights in spatial dependency in hosing values.

The average sales price of the housing stock by CT, reported in the last census also acted as an effective lag variable. Models estimated with the average CT price returned surprisingly significant results, while the average price variable behaved similar to the spatial lag variable. Statistically robust results obtained from using average price of housing stock by CT suggest that simpler spatial lag variables, which are not computationally intensive could offer similar results. In this particular case, we assume that since CT boundaries are very sensitive to the geography of the region, they define a neighbourhood in which the average price captures the spatial effects of comparable sales. Further analysis of this phenomenon will help in understanding of spatial dependency in housing values.

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Variable	Mean	Median	Standard Deviation	Range	Minimum	Maximum	Sum	Count
DWEL10	2528	2601	1223	3597	990	4587	2328205	921
Priv_Dwl	1600	1518	725	6920	20	6940	1469070	918
S_Det	750	685	491	2725	5	2730	680025	907
Apt_5p	585	340	739	6740	5	6745	383530	656
Oth_Dwl	444	345	389	2185	5	2190	404880	912
Owned	958	920	478	2955	10	2965	877270	916
Rented	645	408	703	6860	5	6865	591910	918
Own_Dwl	958	920	478	2955	10	2965	877270	916
Own_Sdet	704	635	465	2625	5	2630	630275	895
Own_Apt5P	86	10	185	1595	5	1600	49495	576
Own_oth	222	120	249	1515	5	1520	197035	887
Bef_1920	155	50	207	1130	5	1135	105290	681
1921_45	202	80	274	1755	5	1760	158005	781
1946_60	364	250	352	2155	5	2160	318645	875
1961_70	377	255	413	4100	5	4105	338770	899
1971_75	253	120	315	2185	5	2190	221985	877
1976_80	201	85	277	2295	5	2300	174125	867
1981_85	181	50	335	2765	5	2770	141345	782
1986	30	10	49	450	5	455	10755	362
Pproom	0	1	0	1	0	1	433	917
PPR_P5	1061	980	531	4675	10	4685	973180	917
PPR_LT1	504	470	265	2145	10	2155	462475	917
PPR_GT1	36	15	55	600	0	600	33370	918
Pr_GT200	143	55	209	1460	5	1465	111440	780
Pr_LT50K	42	30	61	600	0	600	38215	916
Avg_Pr86	134393	119600	60811	732329	34595	766924	123103984	916
Popul	4547	4390	1853	14815	45	14860	4187790	921
PopLT15	895	780	536	4885	0	4885	824550	921
Pop15_39	1971	1840	898	7080	25	7105	1814900	921
PopGT59	654	595	391	2825	0	2825	602150	921
Pop_15P	3626	3475	1439	11005	65	11070	3328570	918
Edu_LT9	501	415	386	2445	0	2445	460330	918
Edu_LT13	970	935	421	2880	25	2905	890770	918
Edu_Dip	466	448	210	1480	0	1480	427495	918
Edu_trad	278	270	133	900	0	900	254830	918
EdUNodip	467	440	214	1575	0	1575	428680	918
EdU_Dip	478	448	251	1645	10	1655	439095	918
Edu_Unv	466	355	395	2545	0	2545	427530	918
P15P_Wrk	2611	2490	1100	7885	55	7940	2397205	918
Avg_Inc	21300	20201	5798	59563	9731	69294	19553656	918
In_LabF	2597	2450	1098	7905	45	7950	2383870	918
Empl	2448	2318	1043	7530	50	7580	2247175	918
Unempl	149	140	76	690	0	690	136655	918
Par_Rate	71	72	7	57	34	91	65446	918
UE_Rate	6	5	2	17	0	17	5346	918
Not_LF	1029	985	441	3215	5	3220	944815	918
Non_Mov	2257	2215	957	5425	10	5435	2071695	918
Mover	1956	1760	1168	9515	40	9555	1793235	917
Mov_Nomi	1078	970	654	6520	5	6525	988845	917
Mov_Mig	877	715	627	4760	15	4775	804485	917
Mig_Ont	570	423	488	3970	10	3980	522015	916
Mig_NonO	140	110	119	1010	5	1015	127425	907
Immgmt	172	110	186	1830	5	1835	155025	903
Cen_Fam	1216	1170	501	3760	25	3785	1114980	917
CF_Ainc	46252	42963	17137	164401	14048	178449	42413116	917
Tot_Fam	1215	1170	502	3790	10	3800	1115200	918
Fam_2Per	477	445	231	1825	5	1830	438145	918
Fam_3Per	284	270	127	885	5	890	260630	918

Fam_4Per	305	280	172	1370	0	1370	280005	918
Fam_5Per	114	105	69	590	0	590	104730	918
Fam_6Per	28	25	18	135	0	135	25255	918
Fam_7Per	5	5	5	35	0	35	4810	918
Fam_8P	2	0	3	25	0	25	1885	918
Fam_TotP	3815	3663	1672	13750	40	13790	3501825	918
Fam_AvgP	3	3	0	2	2	4	2859	918
Fam_Wkid	824	778	389	3215	10	3225	756715	918
Fam_NoKd	390	360	191	1585	0	1585	358455	918
FaAvgKid	1	1	0	2	0	2	1137	918
single	1926	1830	856	7240	25	7265	1773590	921
married	2169	2100	914	6855	15	6870	1998075	921
widowed	219	185	144	1215	5	1220	201385	918
divorced	121	98	88	760	5	765	111675	920
separated	112	95	72	590	5	595	103090	919
SH_LT2H	97	68	94	635	5	640	85090	874
SH_2TO4H	343	315	208	1175	5	1180	312315	910
SH_4TO7H	194	170	119	775	5	780	177110	911
SH_7TO1K	191	145	170	1305	5	1310	172715	903
SH_1KP	142	95	146	1075	5	1080	126680	892

Appendix A: Summary Statistics for 1991 Census Data

	Mean	Median	Mode	Minimum	M
Population, 1991	9252.711632	4506	4083	59	
Population percentage change, 1986-1991	502.3588063	1.3	-1.3	-42.3	
Total population	9252.668622	4505	3420	60	
Males, 20 - 24 years	355.6158358	170	145	0	
Males, 25 - 29 years	448.773216	205	140	0	
Males, 30 - 34 years	435.0097752	205	220	0	
Males, 35 - 39 years	376.9843597	180	145	0	
Females, 15 - 19 years	291.3343109	135	95	0	
Females, 20 - 24 years	362.1847507	170	135	0	
Females, 25 - 29 years	452.3607038	210	135	0	
Females, 30 - 34 years	445.1857283	215	175	0	
Single (never married) persons 15 years of age and over	2299.853372	1090	1245	15	
Legally married (and not separated)	4100.107527	1985	1805	20	
Legally married and separated	220.3665689	100	105	0	
Widowed	440.801564	190	100	0	
Divorced	378.2942326	165	115	5	
Occupied private dwellings - Single-detached house	1550.136852	715	0	0	
Occupied private dwellings - Semi-detached house	271.0997067	45	0	0	
Children at home - Under 6 years of age	743.4017595	340	280	0	
Children at home - 6 - 14 years	1024.051808	460	325	0	
Average # of never-married sons/daughters at home per census family	1.166373412	1.2	1.2	0	
Total number of persons 65 years and over	913.4506354	400	365	0	
Immigrant population	3237.966601	1412.5	925	10	
Population 15+ years - University - With degree	1147.74558	450	240	0	
Employed, both sexes 15+	4819.523576	2312.5	2805	30	
Unemployed, both sexes 15+	449.9901768	210	175	0	
Unemployment rate, both sexes 15+	8.524066798	8	7.5	0	
Males, Usual place of work	2398.482318	1152.5	1245	10	
At home	132.981336	55	50	0	
Usual place of work	2096.399804	1005	795	10	
At home	123.9636542	50	35	0	
Total number of occupied private dwellings	3279.793713	1535	1285	15	
Average number of rooms per dwelling	6.290275049	6.2	7	3	
Average number of bedrooms per dwelling	2.645481336	2.6	2.5	0.7	
Average value of dwelling (26) $	262737.8428	240377	306634	0	
Average gross rent (28) $	813.3958743	758	628	0	
Gross rent >= 30% of household income (29)	182.0923379	65	30	0	
Average major payments for owners (26) $	956.6797642	910	847	0	
Owners major payments >= 30% of household income (30)	278.953831	115	85	0	
Males - Worked full year, full time (33)	1807.956778	857.5	600	0	
Average employment income $	43922.778	40151	0	0	
Females - Worked full year, full time (33)	1309.523576	615	510	0	
Average employment income $	29068.18173	28270	0	0	
$50,000 and over, males 15+	675.481336	280	115	0	
Average income, males 15+ (37) $	35855.89686	32533.5	31912	14563	
Median income, males 15+ (37) $	30644.04126	30001	29971	11199	
CMA number	535.173998	535	535	532	
Census Tract name	291.0096676	281	0	0	
$50,000 and over, females 15+	201.9449902	70	15	0	
Average income, females 15+ (37) $	21093.93615	20313	17107	10627	
Median income, females 15+ (37) $	17905.09627	17951	16029	10148	
Family income - All census families	2468.58055	1200	1165	0	
$60,000 - $69,999, family income	270.0982318	125	95	0	
$70,000 and over, family income	790.0196464	345	260	0	
Average income, family income $	63422.35658	58164.5	50822	20645	
Median income, family income $	56109.90472	53914.5	56609	16228	
Low income economic families (38)	300.7269155	115	45	0	
Incidence of low income (38) (39) %	12.17897839	9.7	8	0	
Incidence of low income (38) (39) %	14.23153242	11.6	9	0	
Household income - All private households	3279.543222	1535	1475	0	
$60,000 - $69,999, household income	312.3821218	145	115	0	
$70,000 and over, household income	950.4125737	425	295	0	
Average income, household income $	60135.92731	57518.5	66722	18807	
Median income, household income $	52084.90963	51606.5	67594	12634	

APPENDIX A: '1995 Descriptive Analysis.'

Summarize

SLDPRICE * STYLE

1995 Descriptive Analysis.

SLDPRICE

STYLE	N	% of Total N	Mean	Median	Minimum	Maximum
	167	.6%	184470.77	142000.00	10000	965000
0	108	.4%	234956.57	202500.00	18000	1000000
1	5850	21.3%	192159.58	173000.00	37000	2350000
2	15503	56.5%	237227.90	204000.00	16000	3100000
3	1085	4.0%	356320.35	270000.00	92000	4250000
4	562	2.0%	196237.50	178075.00	94200	660000
5	354	1.3%	239184.53	215000.00	109000	1325000
6	161	.6%	239658.88	190000.00	95000	1020000
7	911	3.3%	200743.51	175000.00	51500	1200000
A	278	1.0%	174599.19	164000.00	82000	542500
B	584	2.1%	200133.54	185000.00	51000	750000
C	322	1.2%	201322.42	191900.00	114000	505000
D	173	.6%	200126.46	183000.00	119000	535000
E	331	1.2%	245923.76	233000.00	114000	770000
F	52	.2%	224372.17	205500.00	136500	480000
H	26	.1%	212853.85	189250.00	130500	520000
K	574	2.1%	192391.90	181350.00	75000	550000
M	413	1.5%	277288.28	216500.00	80000	1170000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * EXTER_1

1995 Descriptive Analysis.

SLDPRICE

EXTER_1	N	% of Total N	Mean	Median	Minimum	Maximum
	171	.6%	183440.52	136500.00	10000	965000
A	989	3.6%	154873.96	142000.00	26000	1138000
B	24518	89.4%	226746.17	195000.00	16000	2350000
C	63	.2%	191457.14	163000.00	22500	650000
F	317	1.2%	177002.84	160000.00	64000	848000
G	7	.0%	325714.29	186000.00	106000	1200000
L	59	.2%	121514.41	115000.00	59000	234000
M	6	.0%	180483.33	152700.00	125000	340000
O	136	.5%	185729.04	155500.00	24000	1000000
P	383	1.4%	346037.61	255000.00	67000	3700000
S	414	1.5%	469001.41	391500.00	76000	4250000
V	169	.6%	164602.96	138500.00	45000	1200000
W	202	.7%	213475.89	187000.00	24000	745000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * GARAGE

APPENDIX A: '1995 Descriptive Analysis.'

1995 Descriptive Analysis.

SLDPRICE

GARAGE	N	% of Total N	Mean	Median	Minimum	Maximum
	169	.6%	186013.19	142000.00	10000	965000
2	37	.1%	510167.57	325000.00	151500	4250000
3	16	.1%	666531.25	415000.00	149000	3100000
4	25	.1%	364692.00	267000.00	149000	1200000
5	52	.2%	202270.92	184500.00	129000	490000
6	3	.0%	895000.00	655000.00	185000	1845000
7	2	.0%	202500.00	202500.00	155000	250000
8	129	.5%	194861.76	175000.00	139000	949000
A	42	.2%	250621.43	225050.00	51000	720000
B	19	.1%	196284.21	168000.00	122000	419000
C	677	2.5%	182394.09	170000.00	104000	623000
D	7940	28.9%	272769.50	240000.00	96800	2310000
E	66	.2%	176858.94	163750.00	105000	475000
H	297	1.1%	215008.56	185000.00	125000	1200000
J	247	.9%	191464.37	170000.00	16000	1200000
K	989	3.6%	229330.70	193000.00	85000	1375000
L	404	1.5%	351805.61	275000.00	140000	1200000
M	37	.1%	497695.95	475000.00	155500	1052500
N	6244	22.8%	177929.27	158000.00	18000	1170000
O	219	.8%	234476.33	188000.00	43000	1030000
P	62	.2%	385441.53	293500.00	122500	1200000
Q	21	.1%	279119.05	213000.00	163000	1200000
R	52	.2%	287285.77	227550.00	152900	925000
S	5905	21.5%	197958.72	176000.00	75000	2350000
T	293	1.1%	542994.15	475000.00	169500	1768000
X	2493	9.1%	203775.35	175000.00	34500	1270000
Y	957	3.5%	274295.41	205000.00	65500	2210000
Z	37	.1%	469429.73	268000.00	116000	3700000
[illegible]	27434	100.0%	227655.58	191000.00	100000	m.1 1 4250000

SLDPRICE * ROOMS

APPENDIX A: '1995 Descriptive Analysis.'

1995 Descriptive Analysis.

SLDPRICE

ROOMS	N	% of Total N	Mean	Median	Minimum	Maximum
0	214	.8%	184286.58	148392.50	10000	1000000
1	7	.0%	127185.71	70800.00	22500	355000
2	15	.1%	93800.00	95000.00	27500	182000
3	92	.3%	122284.24	111250.00	24000	350000
4	552	2.0%	138277.02	130000.00	18000	390000
5	2669	9.7%	161833.56	153000.00	40000	655000
6	9409	34.3%	185019.01	170000.00	37000	1015000
7	5322	19.4%	214279.04	190000.00	34500	1200000
8	5387	19.6%	257302.12	230000.00	92000	2350000
9	2306	8.4%	322859.36	285000.00	79000	1375000
10	882	3.2%	421099.37	350000.00	90000	2210000
11	251	.9%	506348.28	395000.00	142000	1918000
12	142	.5%	511640.46	350000.00	110000	2300000
13	52	.2%	518136.54	407500.00	155000	1600000
14	31	.1%	493154.84	325000.00	158000	2025000
15	22	.1%	457859.09	425000.00	104000	1695000
16	15	.1%	573253.33	270300.00	190000	2310000
17	9	.0%	849833.33	375000.00	200000	3700000
18	7	.0%	475214.29	295000.00	247500	1030000
19	5	.0%	929500.00	415000.00	255000	3100000
20	8	.0%	341937.50	341000.00	285000	387500
21	4	.0%	525000.00	497500.00	285000	840000
22	1	.0%	310000.00	310000.00	310000	310000
23	1	.0%	4250000.00	4250000.00	4250000	4250000
24	5	.0%	390000.00	380000.00	350000	445000
25	4	.0%	503750.00	510000.00	430000	565000
26	2	.0%	291000.00	291000.00	240000	342000
28	6	.0%	456666.67	317500.00	268000	939000
30	2	.0%	454000.00	454000.00	289000	619000
32	1	.0%	350000.00	350000.00	350000	350000
34	1	.0%	490000.00	490000.00	490000	490000
39	1	.0%	355000.00	355000.00	355000	355000
40	1	.0%	426800.00	426800.00	426800	426800
45	1	.0%	817500.00	817500.00	817500	817500
47	3	.0%	395000.00	385000.00	380000	420000
50	1	.0%	320000.00	320000.00	320000	320000
60	1	.0%	420000.00	420000.00	420000	420000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * BEDS

1995 Descriptive Analysis.

SLDPRICE

BEDS	N	% of Total N	Mean	Median	Minimum	Maximum
0	244	.9%	195656.27	145625.00	10000	1000000
1	141	.5%	139253.26	118000.00	41000	410000
2	2659	9.7%	168537.66	154000.00	24000	740000
3	14413	52.5%	198526.62	177000.00	34500	1395000
4	8590	31.3%	267701.32	235000.00	62000	2350000
5	1049	3.8%	415783.72	335100.00	79000	3100000
6	203	.7%	455414.01	325000.00	122500	2210000
7	53	.2%	616971.70	375000.00	114000	3700000
8	47	.2%	481538.30	305000.00	108000	4250000
9	35	.1%	398751.43	345000.00	155000	1750000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

APPENDIX A: '1995 Descriptive Analysis.'

SLDPRICE * NO_WASH

1995 Descriptive Analysis.

SLDPRICE

NO_WASH	N	% of Total N	Mean	Median	Minimum	Maximum
0	193	.7%	206094.45	155000.00	10000	1000000
1	3468	12.6%	163390.31	155000.00	10000	655000
2	11478	41.8%	186340.49	172000.00	16000	1015000
3	8351	30.4%	236065.67	216500.00	43000	1250000
4	3206	11.7%	328173.53	279350.00	27500	2350000
5	480	1.7%	519293.12	484500.00	98500	1918000
6	144	.5%	674879.24	650000.00	125000	1750000
7	60	.2%	845745.00	815500.00	153500	2210000
8	22	.1%	933622.73	900000.00	222000	2300000
9	30	.1%	1110916.67	783250.00	165000	4250000
Total	27434	100.0%	227855.58	191000.00	10000	4250000

SLDPRICE * KITCHEN

1995 Descriptive Analysis.

SLDPRICE

KITCHEN	N	% of Total N	Mean	Median	Minimum	Maximum
0	223	.8%	194070.98	148785.00	10000	1000000
1	21785	79.4%	232746.40	195500.00	20000	4250000
2	4787	17.4%	206285.39	180000.00	34500	3700000
3	502	1.8%	204921.79	182000.00	60000	1170000
4	82	.3%	268537.79	236250.00	94000	1030000
5	21	.1%	299133.33	254000.00	98500	510000
6	18	.1%	383111.11	362500.00	240000	619000
7	4	.0%	276250.00	192500.00	155000	565000
8	2	.0%	368400.00	368400.00	310000	426800
9	10	.0%	444650.00	367500.00	165000	939000
Total	27434	100.0%	227855.58	191000.00	10000	4250000

SLDPRICE * FIRE

1995 Descriptive Analysis.

SLDPRICE

FIRE	N	% of Total N	Mean	Median	Minimum	Maximum
	173	.6%	185709.42	145000.00	10000	965000
M	2774	10.1%	410296.90	330000.00	99000	4250000
N	10039	36.6%	166361.81	160000.00	18000	1000000
O	821	3.0%	182806.86	174000.00	27000	515000
R	87	.3%	191295.84	175000.00	65000	350000
Y	13539	49.4%	239175.99	215000.00	51000	1399999
~	1	.0%	174900.00	174900.00	174900	174900
Total	27434	100.0%	227855.58	191000.00	10000	4250000

SLDPRICE * FAM_ROOM

APPENDIX A: '1995 Descriptive Analysis.'

1995 Descriptive Analysis.

SLDPRICE

FAM_ROOM	N	% of Total N	Mean	Median	Minimum	Maximum
	177	.6%	183766.83	144800.00	10000	985000
A	11049	40.3%	285269.91	237000.00	45000	4250000
N	16198	59.0%	188844.81	170000.00	16000	2350000
~	10	.0%	212100.00	185250.00	110000	525000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * HEAT

1995 Descriptive Analysis.

SLDPRICE

HEAT	N	% of Total N	Mean	Median	Minimum	Maximum
	176	.6%	187535.98	144900.00	10000	985000
0	151	.6%	261853.64	180600.00	24000	1375000
1	670	2.4%	262394.13	220000.00	60000	2210000
2	1919	7.0%	201943.42	175000.00	16000	1325000
3	1679	6.1%	311939.11	253000.00	50000	4250000
4	21594	78.7%	223886.56	191000.00	24000	3700000
5	804	2.9%	175387.51	150000.00	18000	2350000
6	352	1.3%	248121.39	193700.00	22500	1200000
7	39	.1%	263497.44	250500.00	122000	580000
8	48	.2%	261618.48	236250.00	25500	925000
W	2	.0%	43500.00	43500.00	37000	50000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * CAC

1995 Descriptive Analysis.

SLDPRICE

CAC	N	% of Total N	Mean	Median	Minimum	Maximum
	174	.6%	185423.73	143400.00	10000	985000
N	11430	41.7%	199186.85	170000.00	16000	1750000
Y	15830	57.7%	248675.54	209000.00	22500	4250000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * PARK_CAP

1995 Descriptive Analysis.

SLDPRICE

PARK_CAP	N	% of Total N	Mean	Median	Minimum	Maximum
0	6244	23.1%	177929.27	158000.00	18000	1170000
1	10876	40.2%	201913.07	177500.00	16000	2350000
2	9424	34.8%	276801.03	238000.00	51000	2310000
3	367	1.4%	531010.72	460800.00	116000	3700000
4	78	.3%	495615.38	320000.00	149000	4250000
5	57	.2%	238738.39	185000.00	129000	1845000
Total	27046	100.0%	227860.56	192000.00	16000	4250000

SLDPRICE * BASEMENT

APPENDIX A: '1995 Descriptive Analysis.'

1996 Descriptive Analysis.

SLDPRICE

BASEMENT	N	% of Total N	Mean	Median	Minimum	Maximum
	171	.6%	187211.87	145000.00	10000	985000
A	2187	8.0%	190190.35	175000.00	75000	950000
C	118	.4%	171275.41	142500.00	37000	975000
D	186	.7%	203254.05	165500.00	70000	900000
F	13553	49.4%	239529.69	194000.00	16000	3700000
H	37	.1%	203746.65	175000.00	80000	500000
K	21	.1%	236971.43	195000.00	43000	730000
L	952	3.5%	212712.20	192250.00	48000	1200000
N	245	.9%	196600.20	153000.00	22500	1000000
O	72	.3%	213655.56	170000.00	36000	939000
P	3946	14.4%	221477.65	187000.00	41000	1695000
S	88	.3%	202900.00	175000.00	70000	728000
U	5463	19.9%	222146.11	204000.00	27000	4250000
W	393	1.4%	277005.41	239000.00	95000	1373800
~	2	.0%	180750.00	180750.00	139500	222000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * DRIVE

1996 Descriptive Analysis.

SLDPRICE

DRIVE	N	% of Total N	Mean	Median	Minimum	Maximum
	170	.6%	187324.88	144900.00	10000	965000
?	1	.0%	590000.00	590000.00	590000	590000
C	135	.5%	573766.67	439000.00	105000	3100000
D	3693	13.5%	245316.18	216000.00	48000	1500000
F	90	.3%	188761.67	165500.00	25500	530000
L	1514	5.5%	195145.78	175000.00	18000	1175000
M	1616	5.9%	210312.30	180000.00	65000	1270000
N	824	3.0%	165426.62	145000.00	16000	840000
O	186	.7%	208011.26	179550.00	22500	607500
P	18780	68.5%	229445.30	190000.00	24000	4250000
R	236	.9%	222443.64	172000.00	47000	3700000
Y	189	.7%	216253.17	199900.00	36000	650000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * POOL

1996 Descriptive Analysis.

SLDPRICE

POOL	N	% of Total N	Mean	Median	Minimum	Maximum
	179	.7%	182881.17	144800.00	10000	965000
?	3	.0%	253166.67	248000.00	204000	307500
A	316	1.2%	183188.92	175000.00	94000	667500
H	48	.2%	564779.17	417500.00	132900	2310000
I	1758	6.4%	312077.46	242750.00	67000	4250000
N	25130	91.6%	221980.85	189900.00	16000	3700000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * TYPE

APPENDIX A: '1995 Descriptive Analysis.'

1995 Descriptive Analysis.

SLDPRICE

TYPE	N	% of Total N	Mean	Median	Minimum	Maximum
A	1009	3.7%	172366.10	156000.00	60000	835000
B	27	.1%	77485.19	43000.00	10000	283000
D	19716	71.9%	246579.32	210000.00	37000	4250000
F	6	.0%	324083.33	260000.00	133000	700000
G	8	.0%	90112.50	68000.00	24000	175000
J	34	.1%	262247.06	244000.00	77500	870000
K	10	.0%	284450.00	212200.00	182000	620000
L	1186	4.3%	180659.69	180000.00	94000	310000
M	21	.1%	405666.67	385000.00	158000	817500
N	5	.0%	252800.00	250000.00	110000	385000
O	207	.8%	266619.37	220000.00	10000	1000000
R	26	.1%	319623.06	297500.00	126000	726000
S	4997	18.2%	174948.18	162500.00	48000	1075000
V	144	.5%	165049.09	147125.00	10000	840000
Y	38	.1%	209681.58	201250.00	115000	465000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * BEACH

1995 Descriptive Analysis.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	23345	85.1%	233509.19	196000.00	10000	4250000
1	4089	14.9%	194236.04	170000.00	30000	1200000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * HWAY

1995 Descriptive Analysis.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	15273	55.7%	231132.47	193000.00	10000	4250000
1	12161	44.3%	223288.97	190000.00	10000	1750000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * SUBWAY

1995 Descriptive Analysis.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	21309	77.7%	216852.40	188200.00	10000	3100000
1	6125	22.3%	265240.07	210000.00	10000	4250000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * MALL

APPENDIX A: '1995 Descriptive Analysis.'

1995 Descriptive Analysis.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	14850	54.1%	225834.30	195000.00	10000	3100000
1	12584	45.9%	229804.83	188000.00	10000	4250000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * BEACH_1

1995 Descriptive Analysis.

SLDPRICE

BEACH_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	25704	93.7%	229286.71	193000.00	10000	4250000
1	1730	6.3%	203420.65	174300.00	30000	1200000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * HWAY_1

1995 Descriptive Analysis.

SLDPRICE

HWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	22191	80.9%	229397.92	191000.00	10000	4250000
1	5243	19.1%	220281.14	192000.00	10000	1550000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * SWAY_1

1995 Descriptive Analysis.

SLDPRICE

SWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	23223	84.7%	220130.07	189500.00	10000	3100000
1	4211	15.3%	269157.61	214900.00	10000	4250000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * MALL_25

1995 Descriptive Analysis.

SLDPRICE

MALL_25	N	% of Total N	Mean	Median	Minimum	Maximum
0	24348	88.8%	230484.63	193000.00	10000	4250000
1	3086	11.2%	205334.94	182430.00	41000	1375000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * BEACH_DO

APPENDIX A: '1995 Descriptive Analysis.'

1995 Descriptive Analysis.

SLDPRICE

BEACH_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	25075	91.4%	231433.29	195000.00	10000	4250000
1.00	2359	8.6%	187500.40	168000.00	34500	1143000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * HWAY_DO

1995 Descriptive Analysis.

SLDPRICE

HWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	20516	74.8%	228359.34	193000.00	10000	4250000
1.00	6918	25.2%	225568.53	188000.00	10000	1750000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * SWAY_DO

1995 Descriptive Analysis.

SLDPRICE

SWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	25520	93.0%	225483.17	190000.00	10000	4250000
1.00	1914	7.0%	256621.06	202000.00	18000	1600000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * MALL_DO

1995 Descriptive Analysis.

SLDPRICE

MALL_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	17936	65.4%	222307.26	192000.00	10000	3100000
1.00	9498	34.6%	237755.35	190000.00	10000	4250000
Total	27434	100.0%	227655.58	191000.00	10000	4250000

SLDPRICE * MUNICIPAL

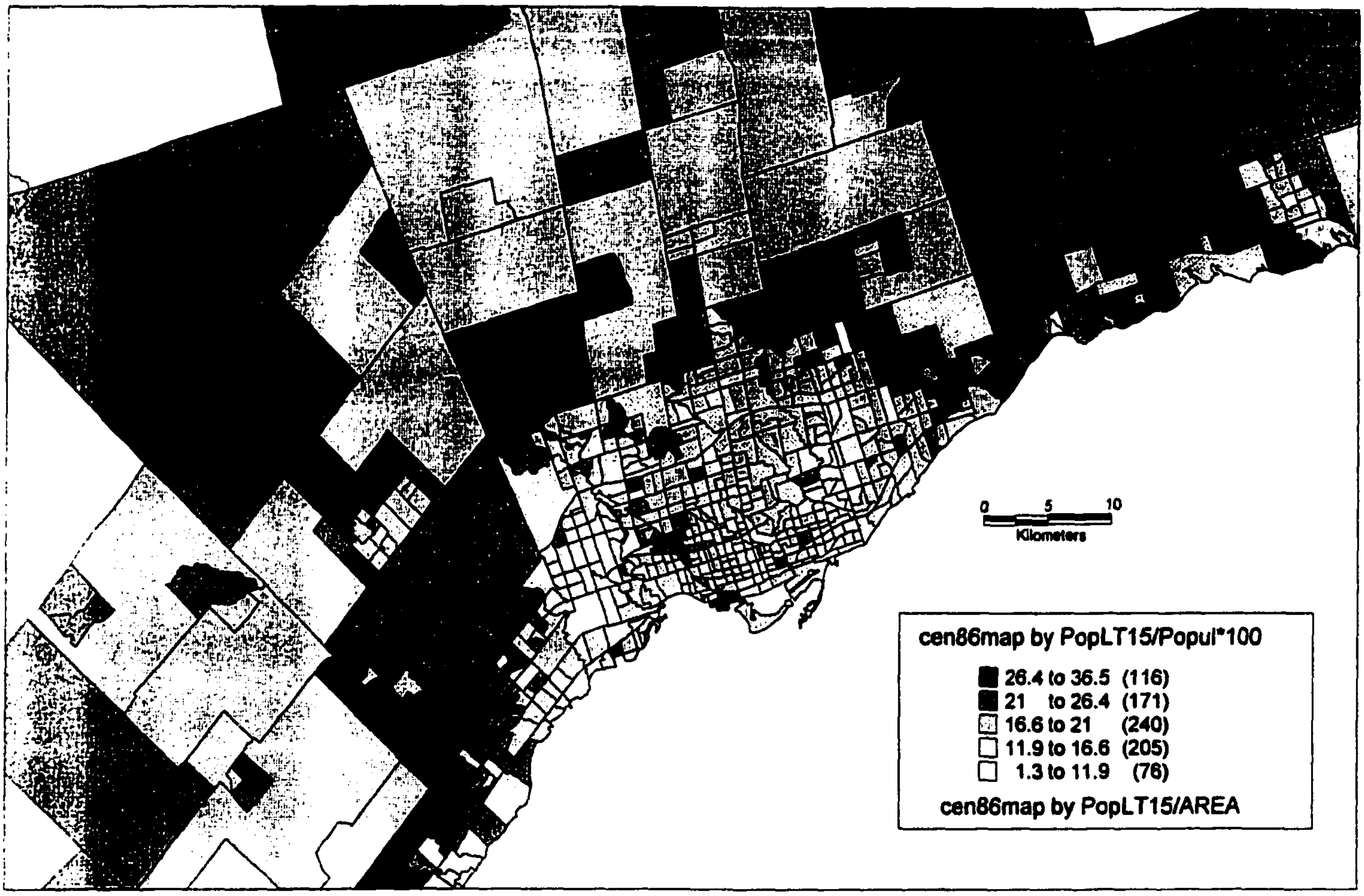
APPENDIX A: '1995 Descriptive Analysis.'

1995 Descriptive Analysis.

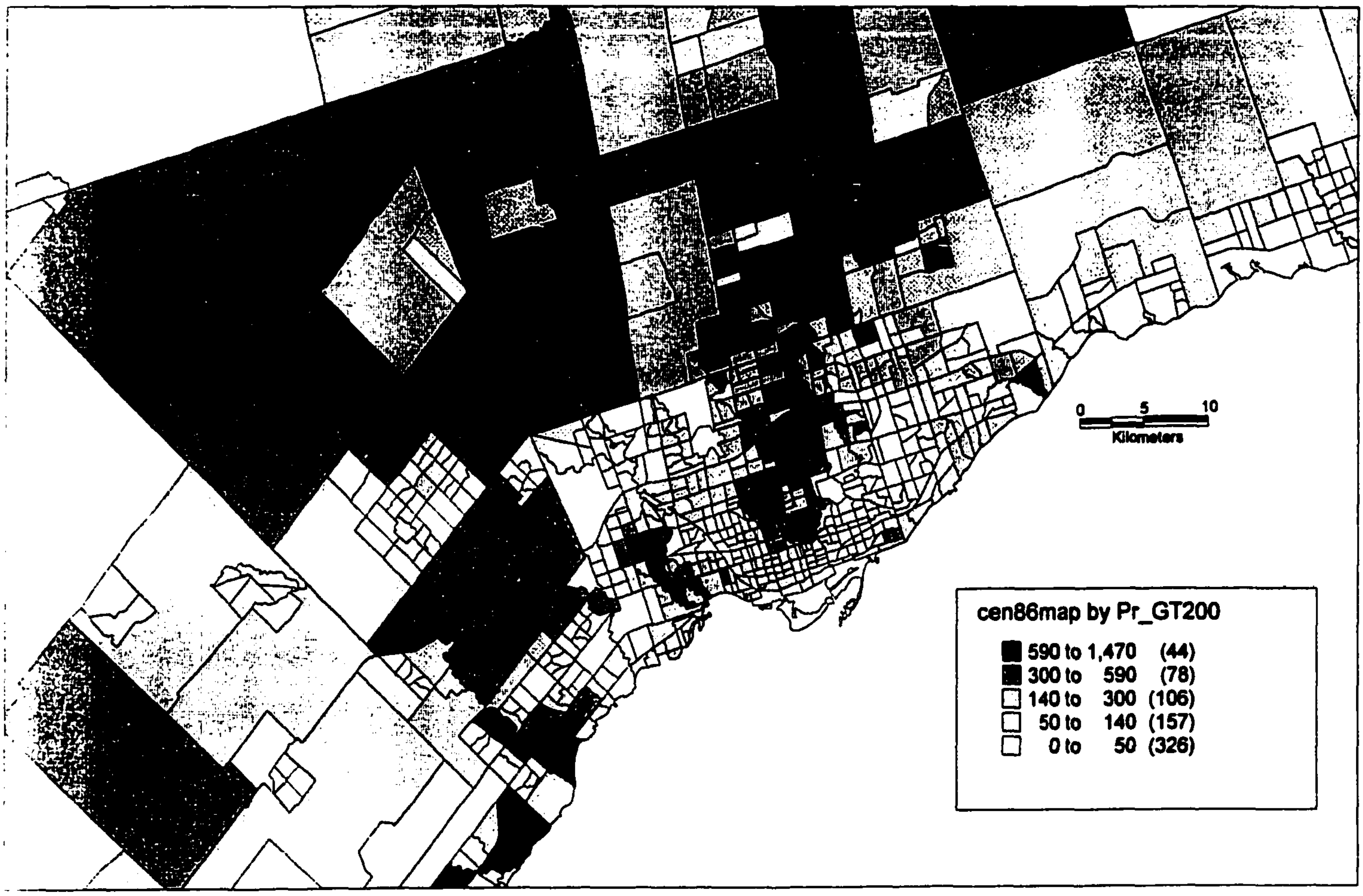
SLDPRICE

MUNICIPAL	N	% of Total N	Mean	Median	Minimum	Maximum
AJAX	713	2.6%	169488.15	161000.00	65000	630000
AURORA	360	1.3%	244794.55	221500.00	80000	825000
BRAMPTON	1969	7.2%	174297.63	165000.00	75000	615000
BURLINGTON	21	.1%	222333.33	169000.00	117500	630000
CALEDON	106	.4%	258506.49	237000.00	60000	749000
E GWILL	20	.1%	213414.00	226750.00	40000	375000
EAST YORK	845	3.1%	202284.95	174898.00	78000	655000
ETOBICOKE	1764	6.4%	235414.33	200000.00	40000	1170000
GEORGINA	43	.2%	109151.16	104000.00	18000	420000
KING	26	.1%	292184.62	282500.00	74000	950000
MARKHAM	1321	4.8%	275374.95	251000.00	105000	1486000
MILTON	13	.0%	173115.38	171500.00	145000	202000
MISS	3258	11.9%	215880.32	195000.00	55000	1500000
NEWCASTLE	21	.1%	160380.95	142000.00	124000	487500
NEWMARKET	616	2.2%	198081.49	190000.00	60000	450000
NORTH YORK	2414	8.8%	317480.98	245000.00	10000	3100000
OAKVILLE	923	3.4%	248561.29	232300.00	121000	975000
OSHAWA	1100	4.0%	127343.64	123000.00	41000	450000
PICKERING	771	2.8%	183453.58	173000.00	30000	390000
R HILL	888	3.2%	302259.09	270000.00	12000	2350000
SCARBORO	3308	12.1%	189750.64	176500.00	40000	1200000
TORONTO	4353	15.9%	265962.32	214900.00	10000	4250000
UXBRIDGE	62	.2%	181836.29	179500.00	39000	370000
VAUGHAN	759	2.8%	284967.55	255000.00	24000	1630000
WHIT/STOUF	66	.2%	252627.27	237500.00	59900	728000
WHITBY	653	2.4%	170678.42	165900.00	10000	475000
YORK	1041	3.8%	169603.77	155000.00	44500	817500
Total	27434	100.0%	227655.58	191000.00	10000	4250000

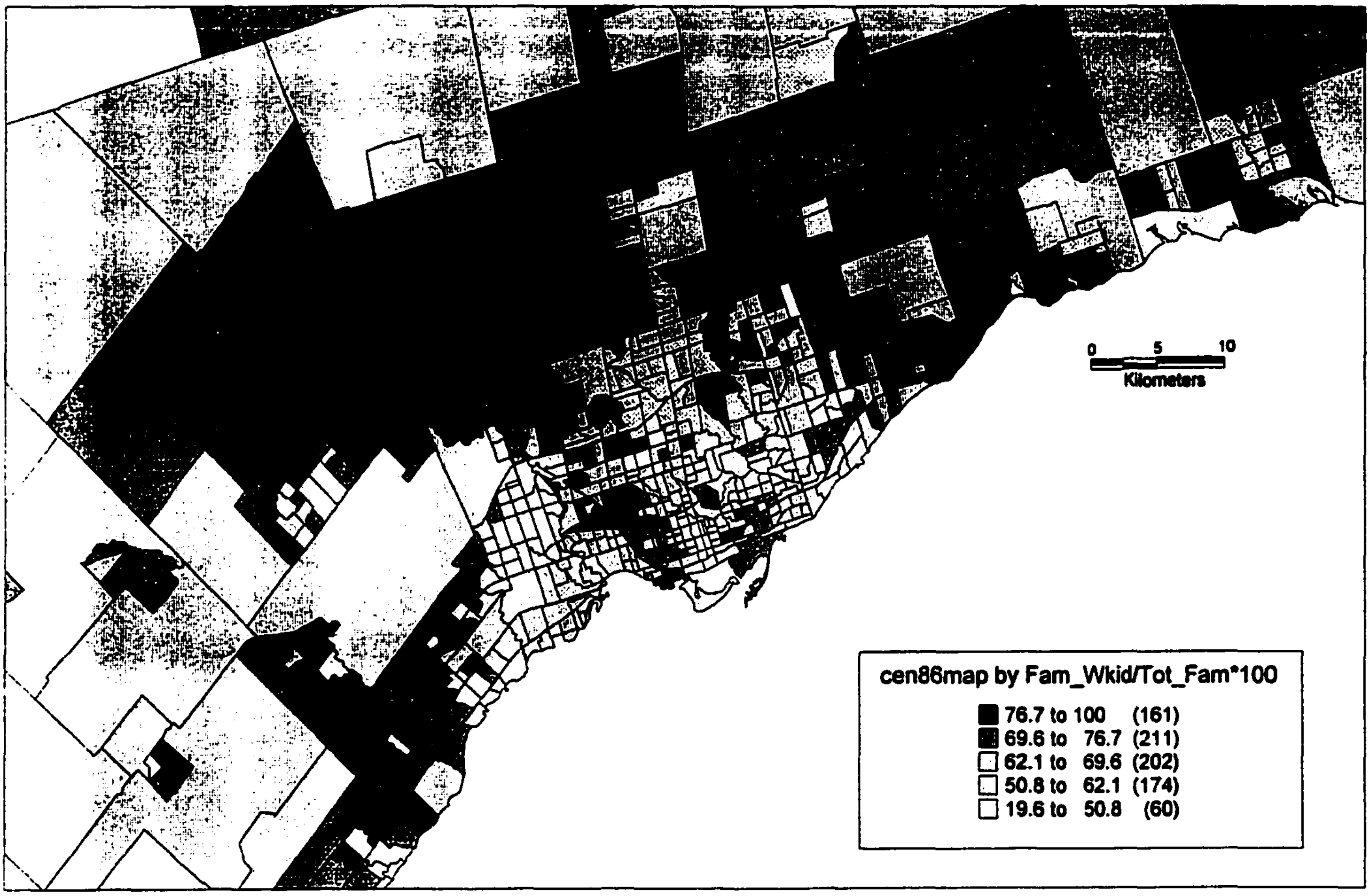
Spatial Distribution of Population < 15 Years Old, 1986 Census Data



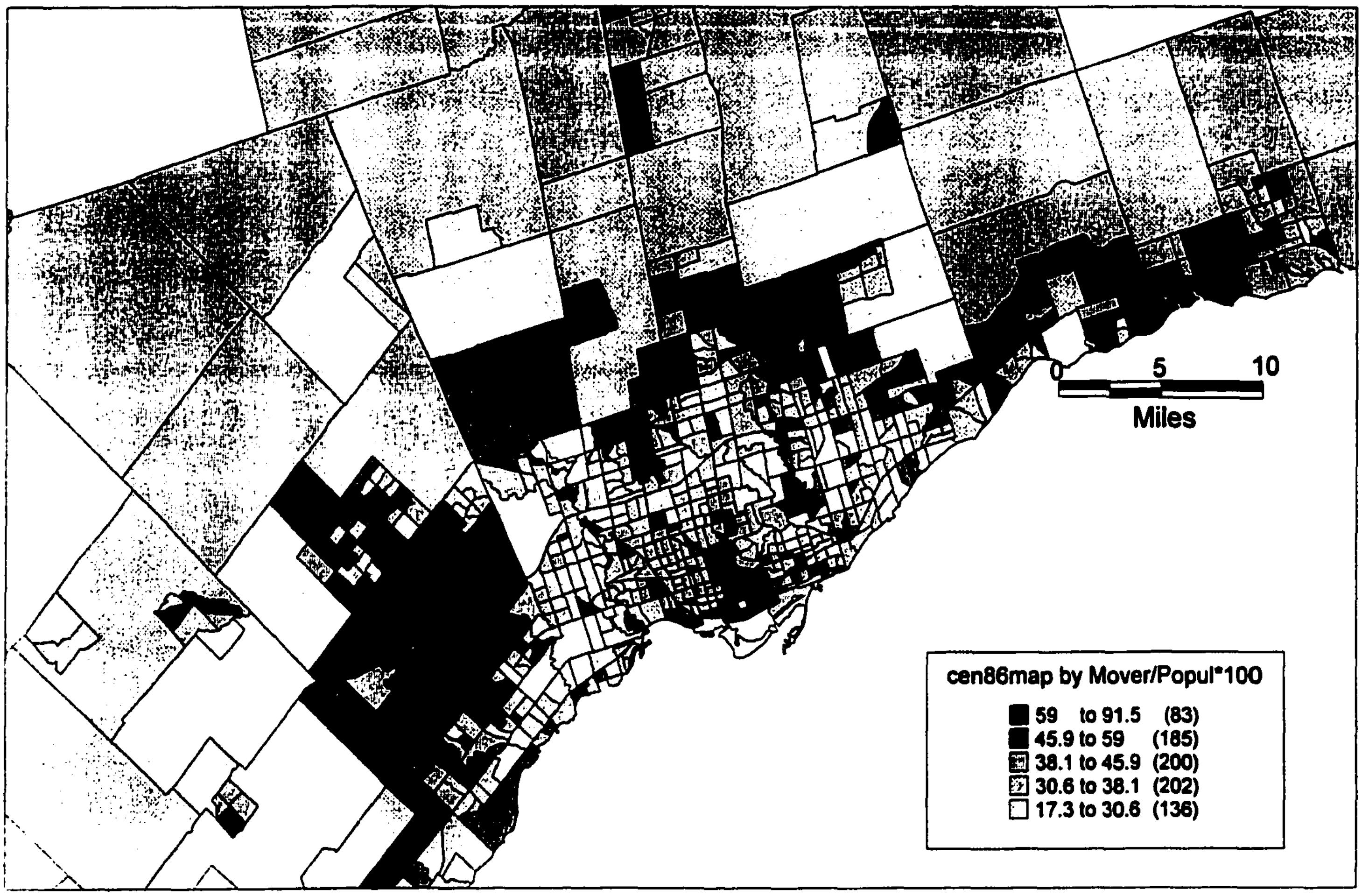
Spatial Distribution of Properties Over $200,000, 1986 Census Data



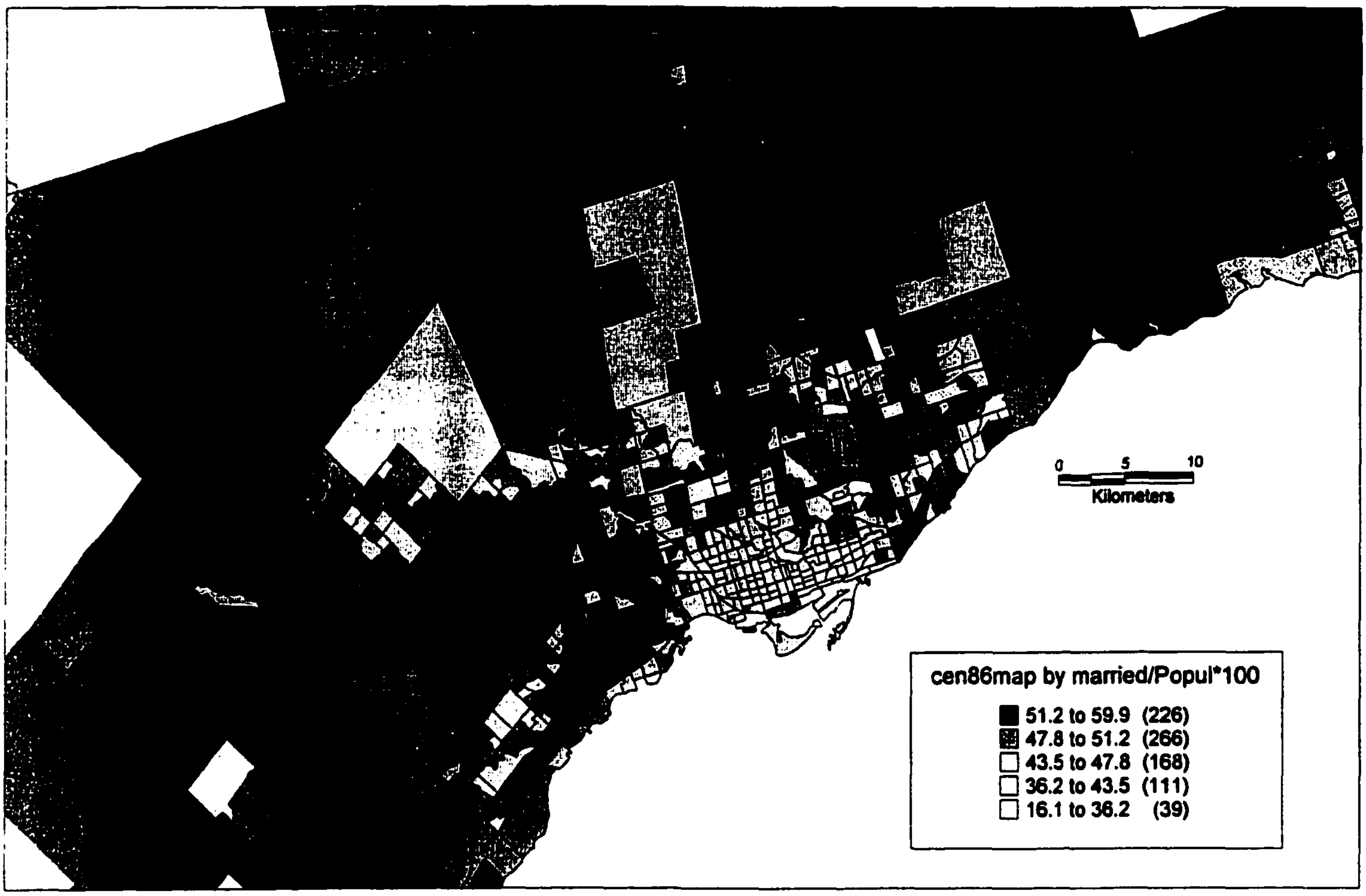
Percentage of Census Families With children at Home, 1986 Census Data



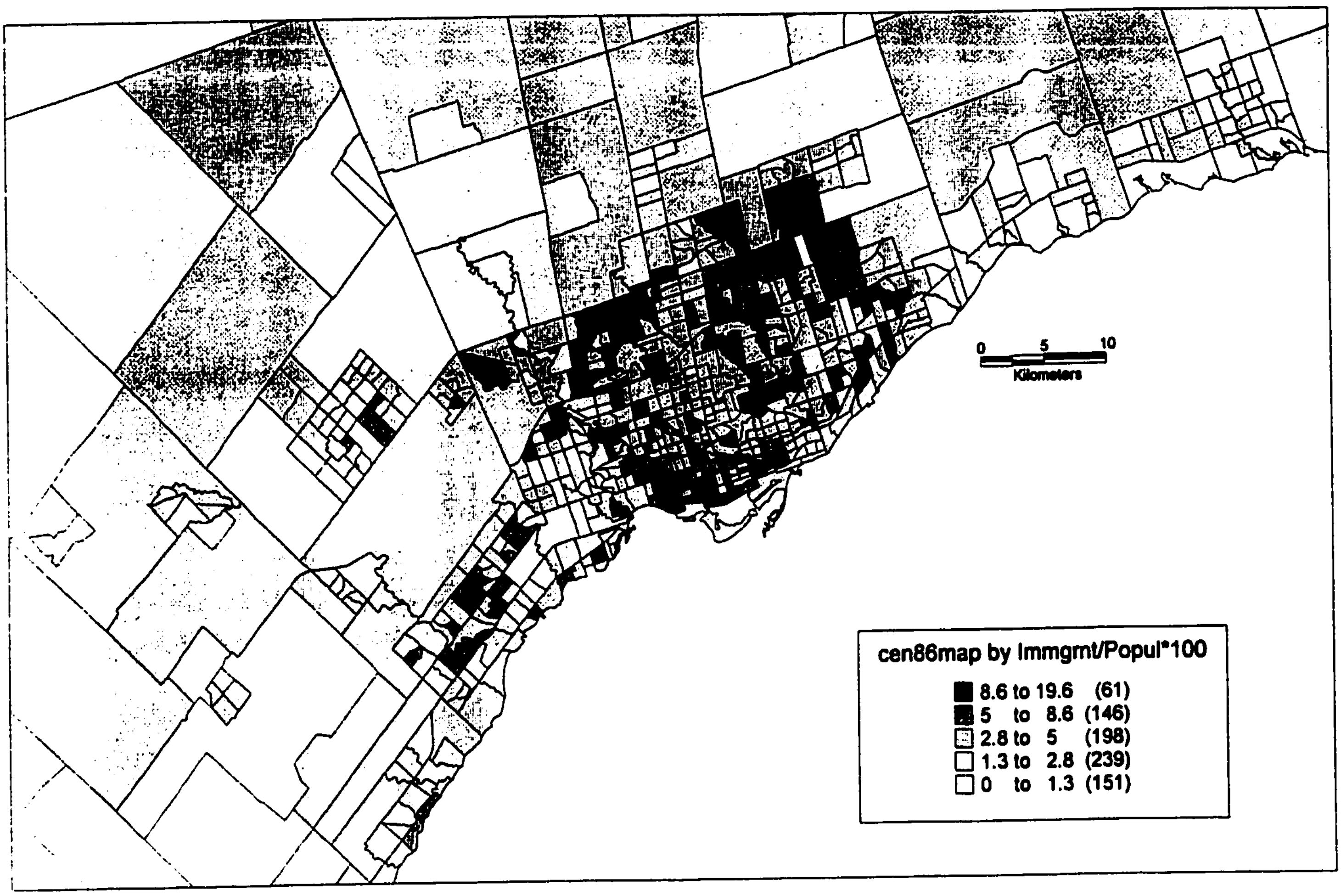
Percentage of Movers by CT, 1986 Census Data



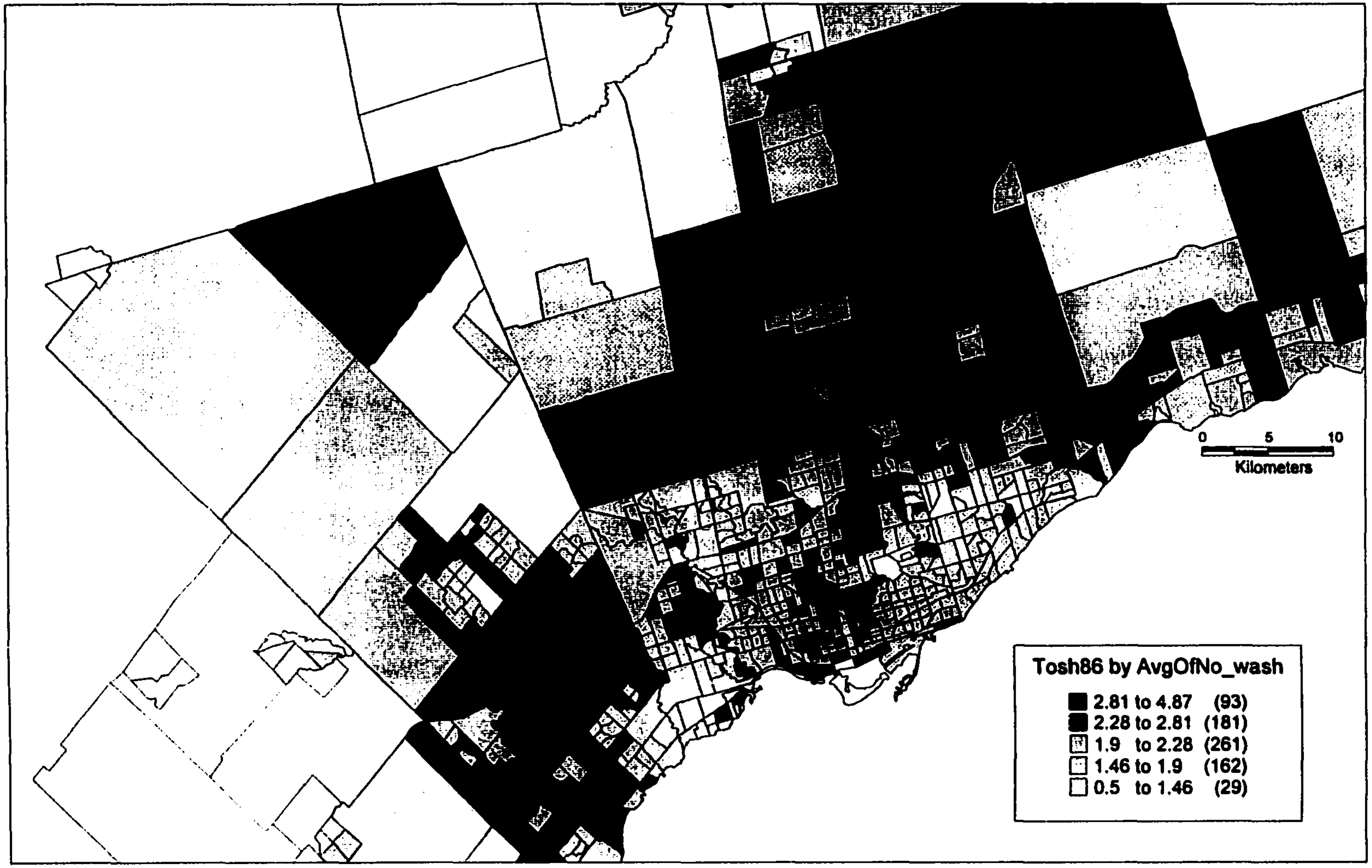
Percentage of Married Population, 1986 Census Data



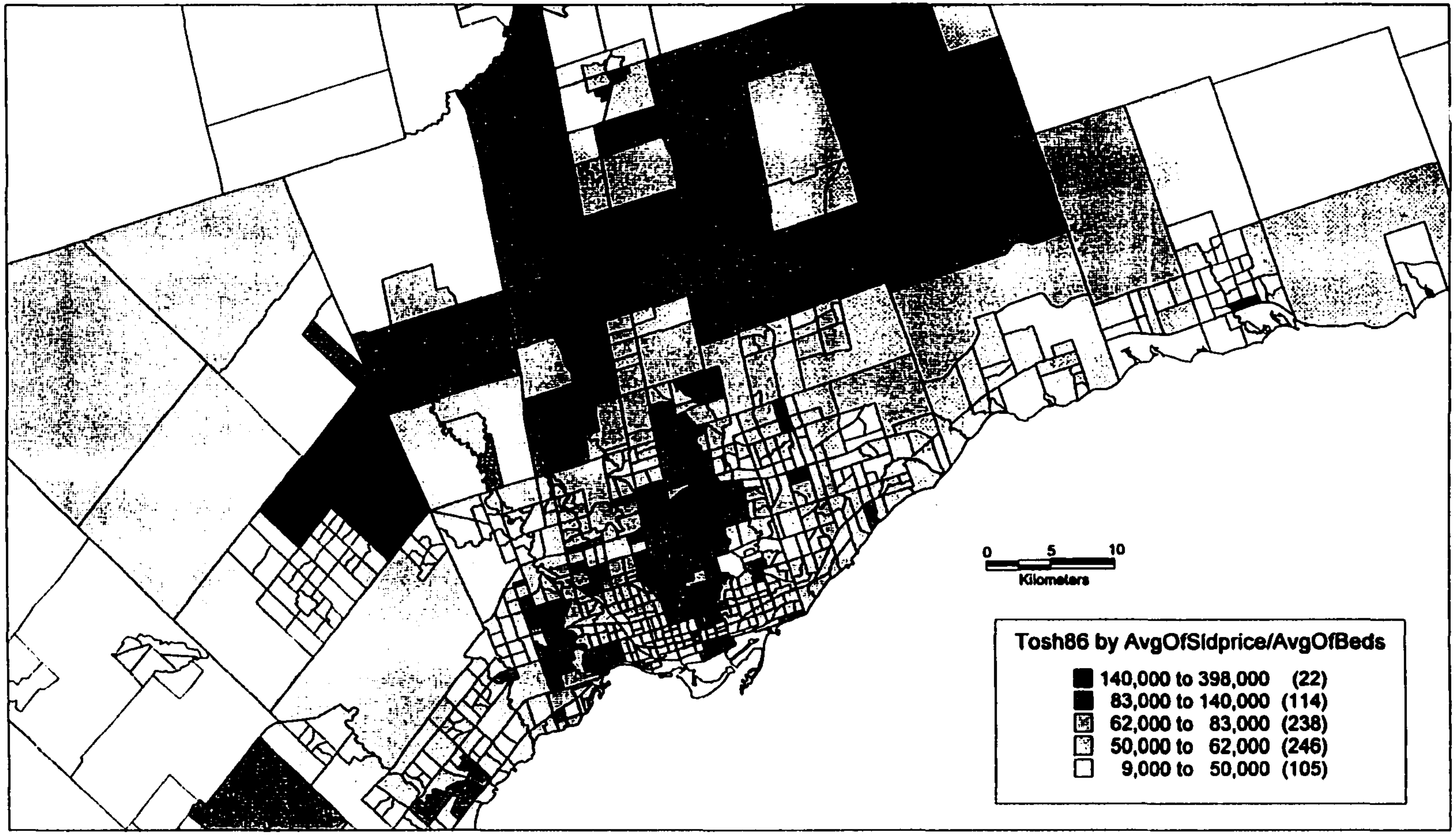
Percentage of New Immigrants into Canada by CT, 1986 Census Data



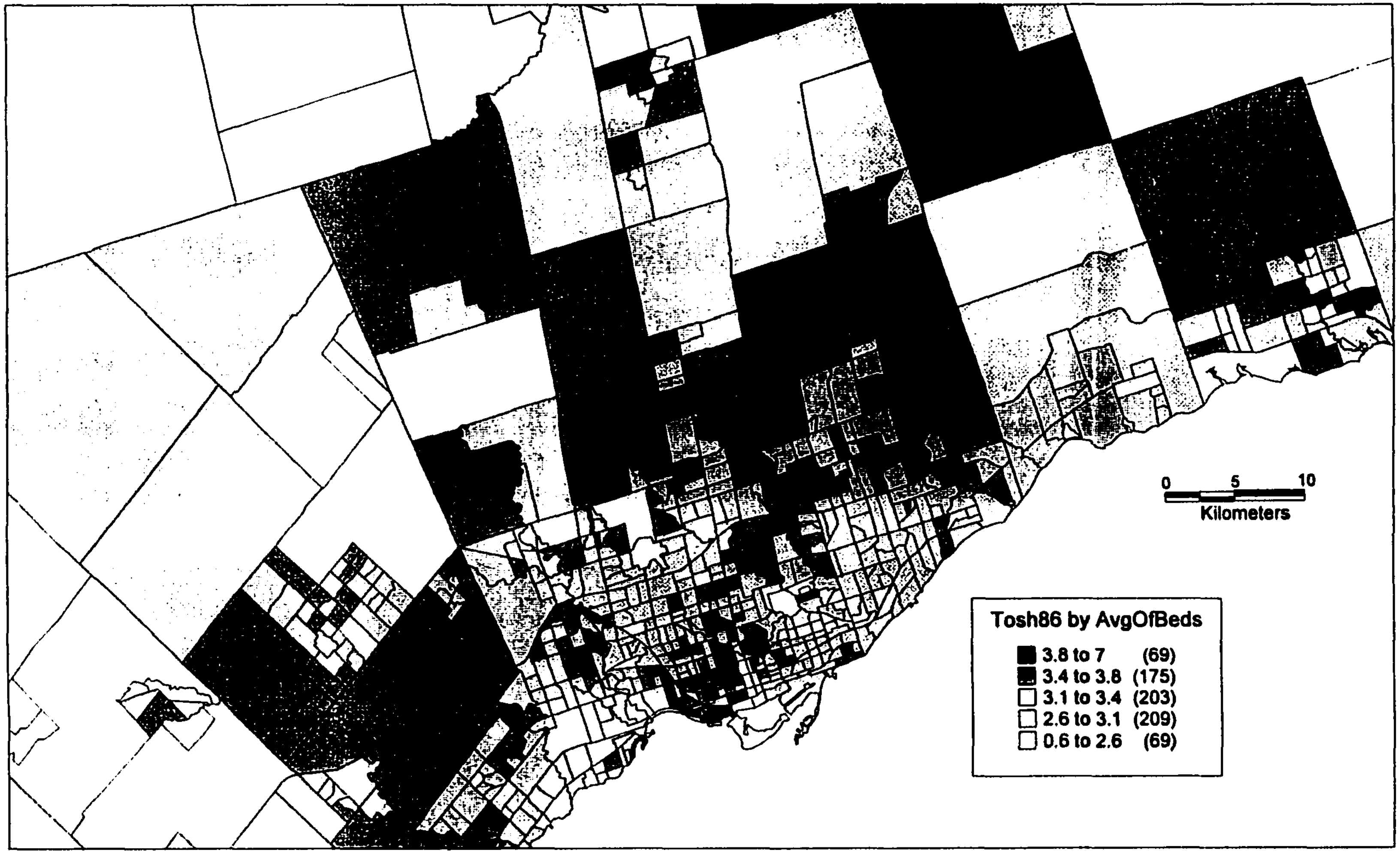
Average No. of Washrooms by CT, GTA-1987



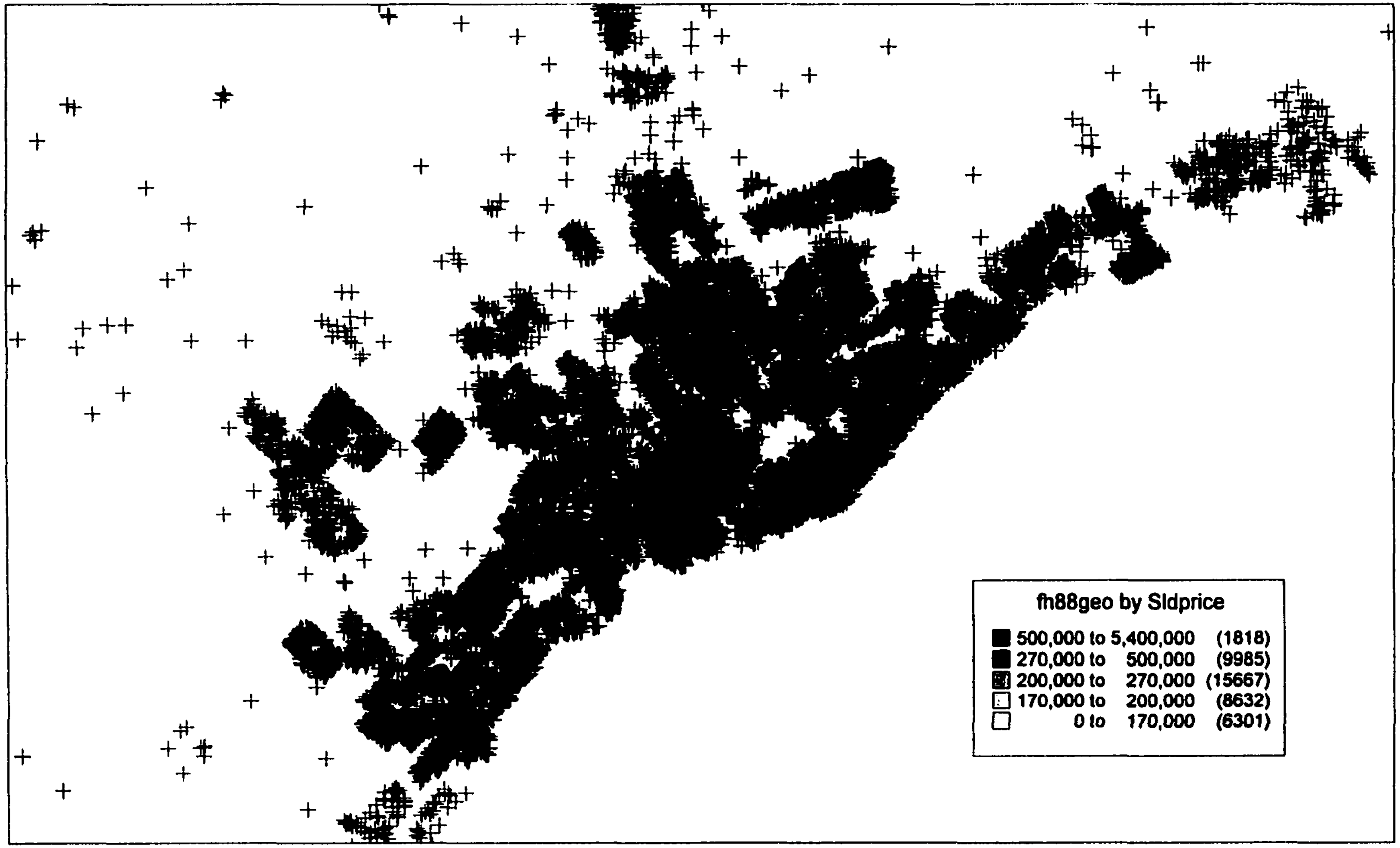
Price per Bedroom for Freehold Properties in the GTA, 1987



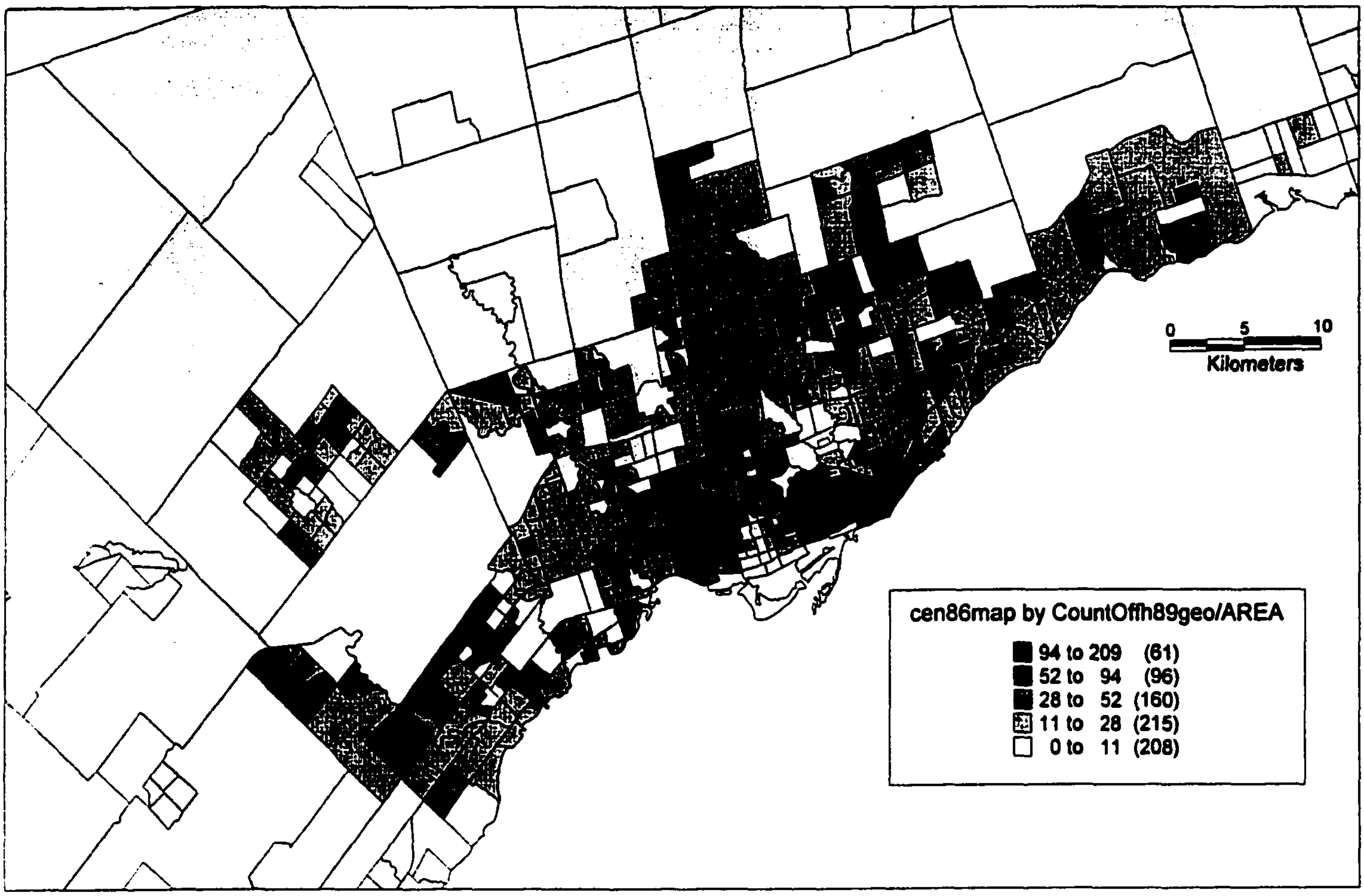
Average No. of Beds by Census Tracts, Freehold Properties -- GTA, 1987



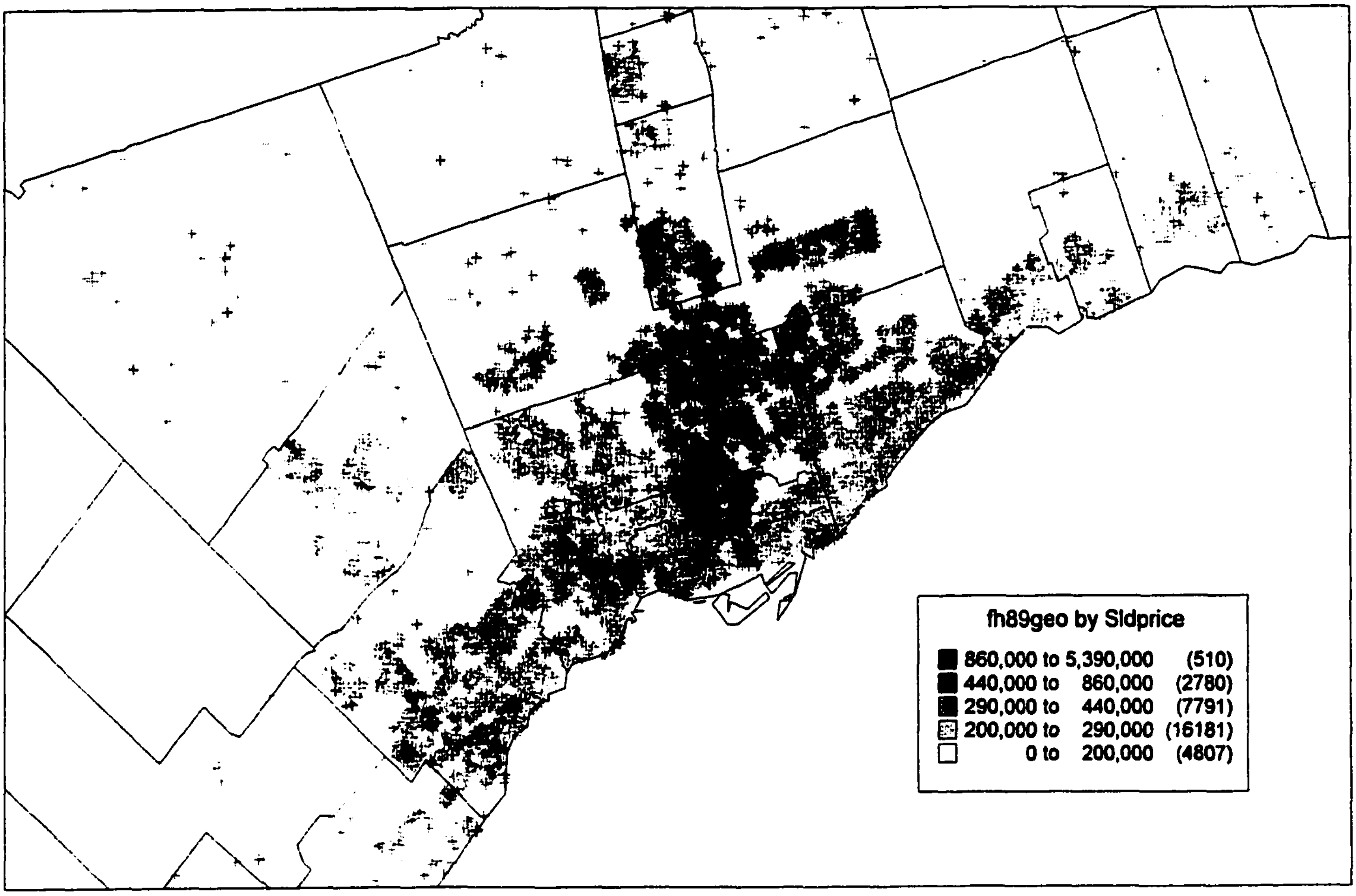
Spatial Distribution of the Price of Freehold Properties in the GTA, 1988



No of Sales per Sq. KM, Freehold 1989 Data Set

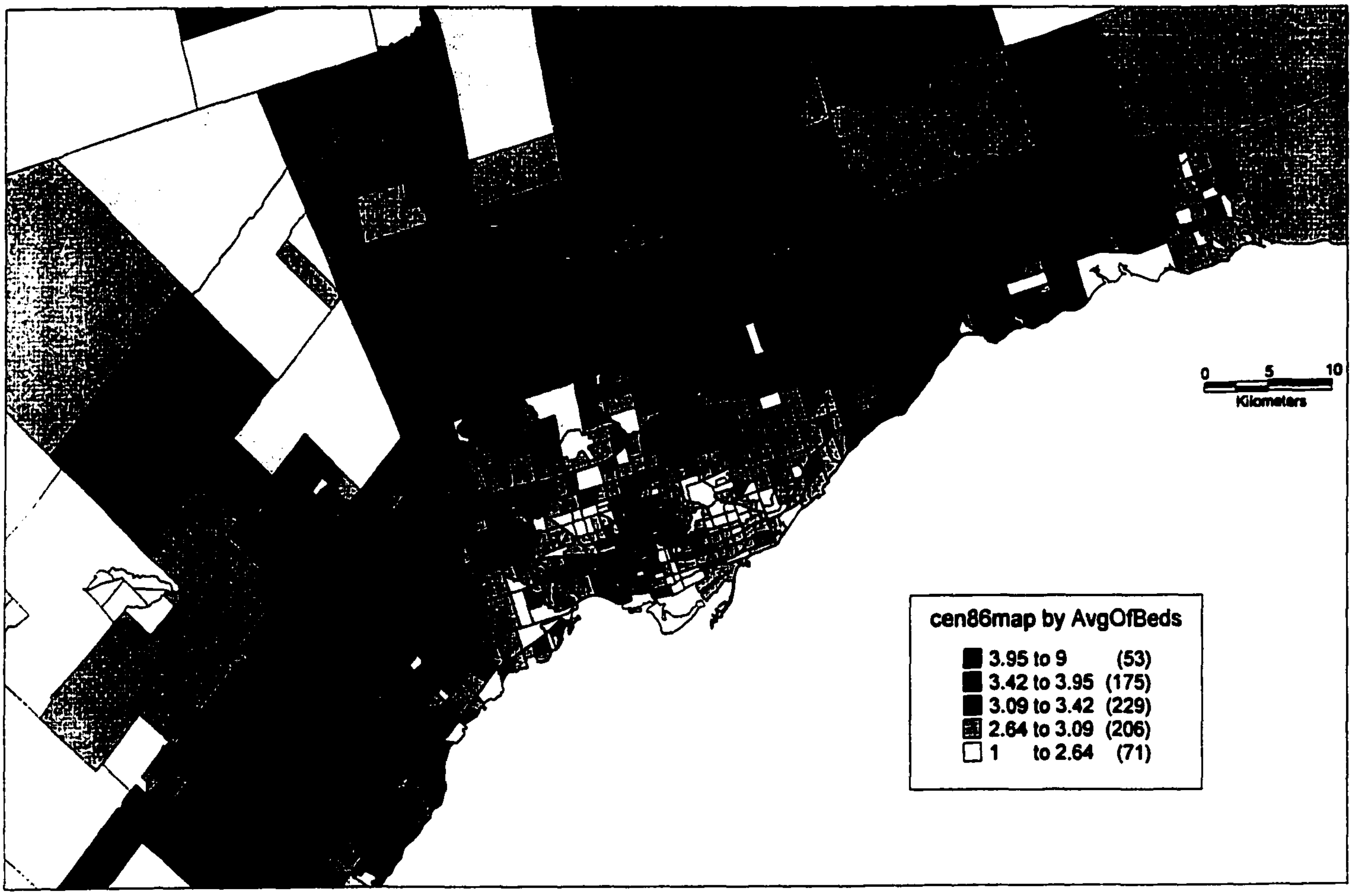


Thematic Map of Price of Freehold Properties 1989

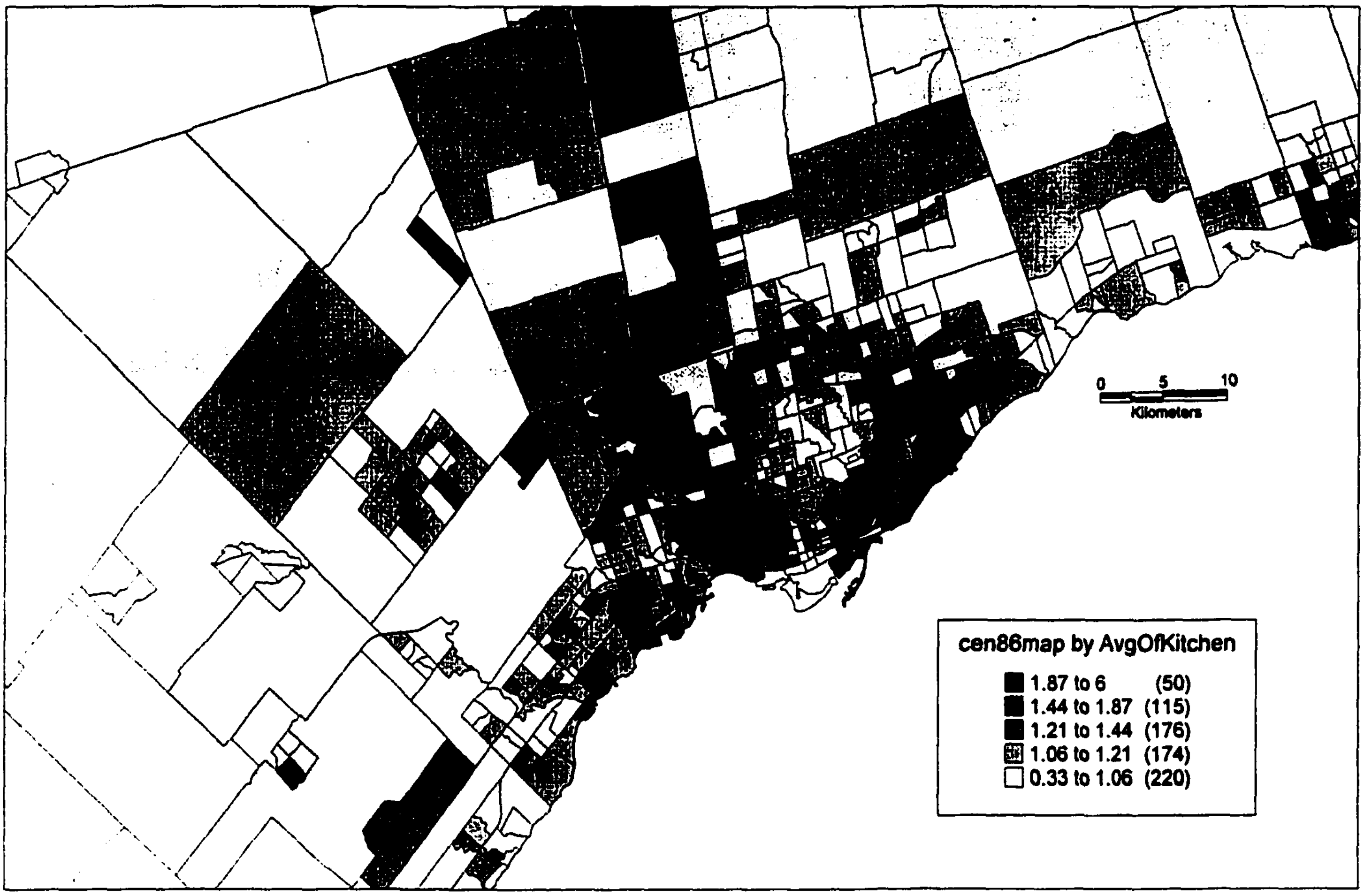


Average Sale Price Per Bed by CT, Freehold 1989 Data Set

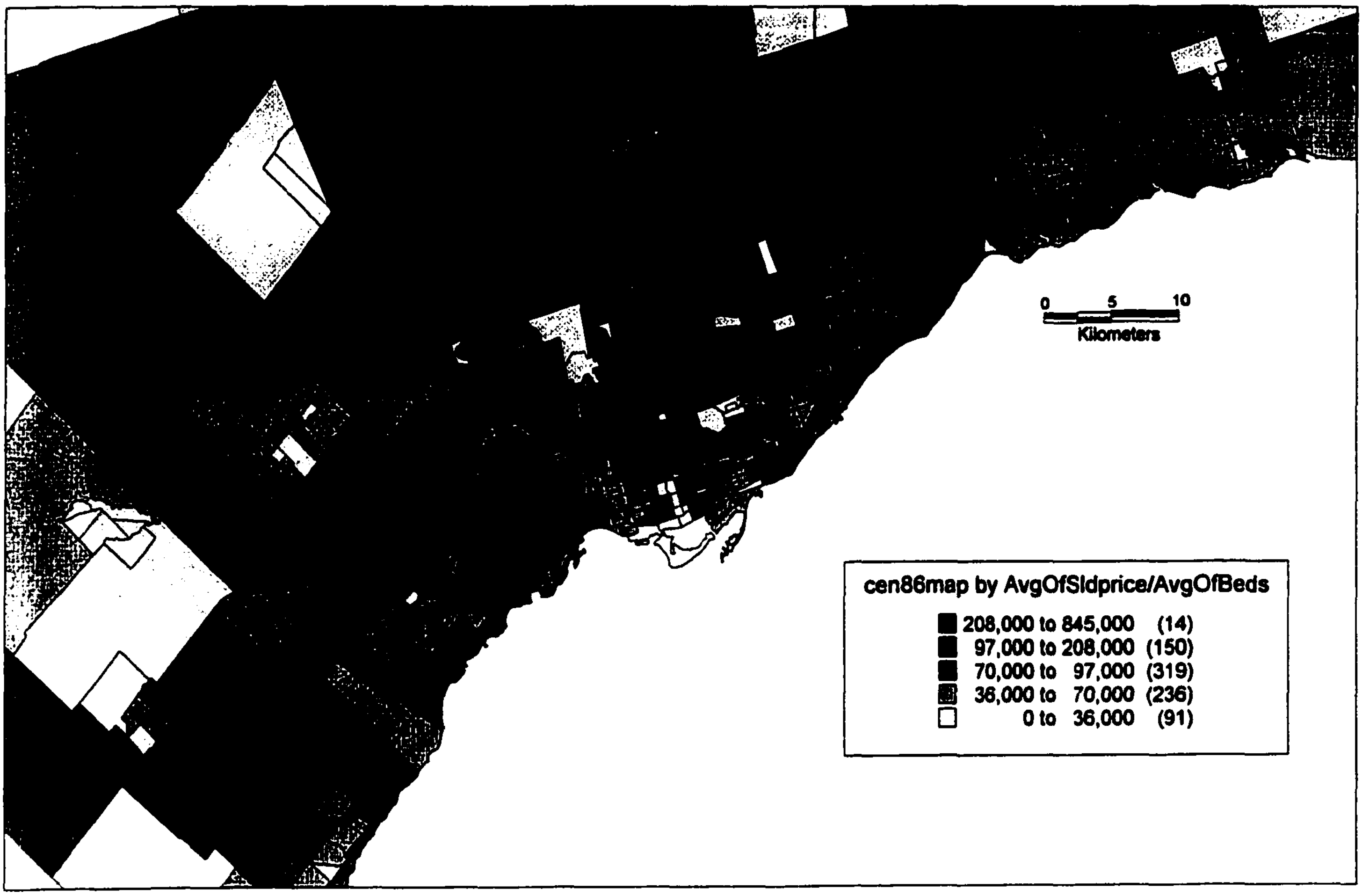
Average No. Beds per CT, Freehold 1989 Data Set



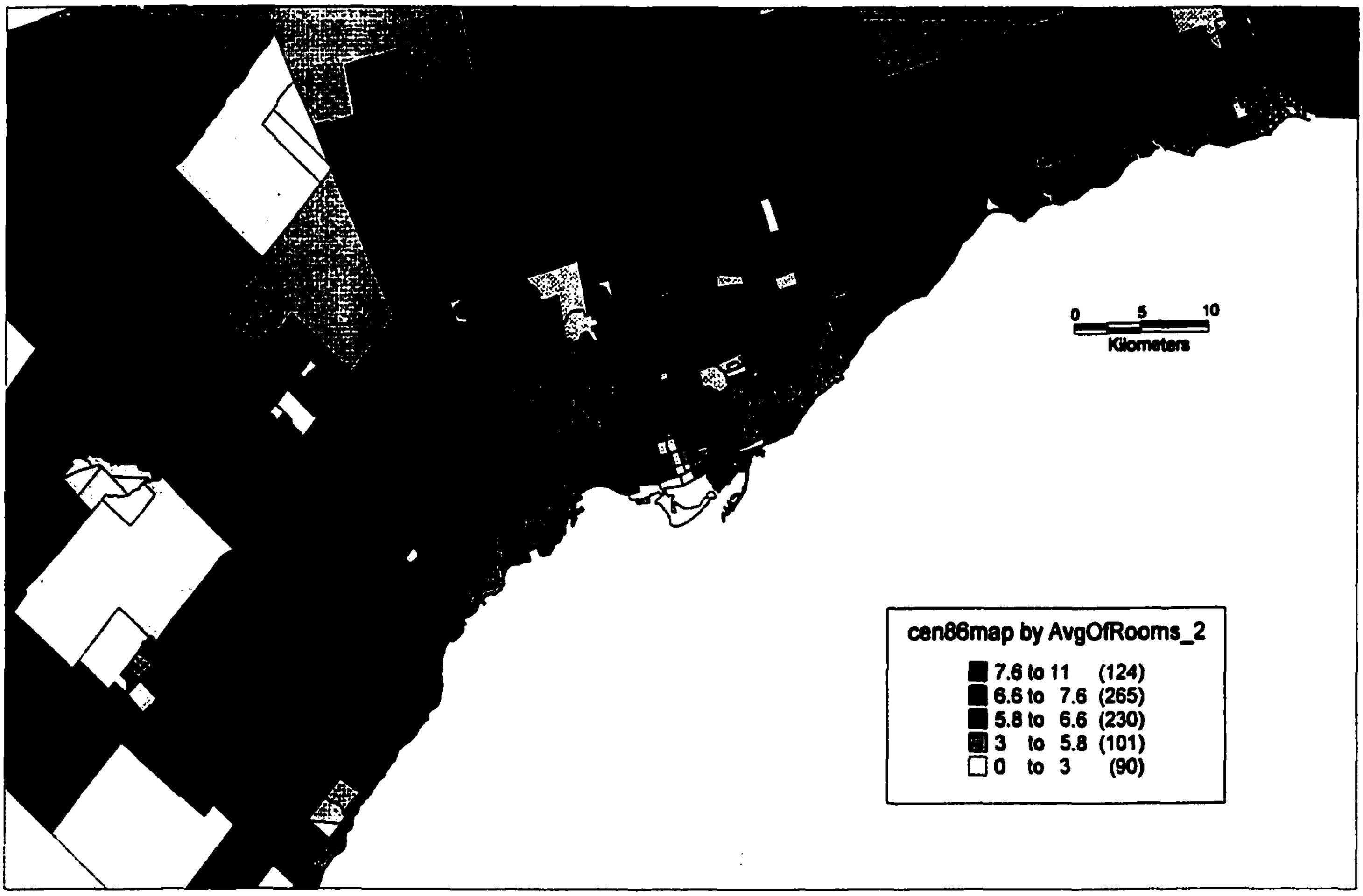
Average No. of Kitchens per SFD by CT, Freehold 1989 Data Set



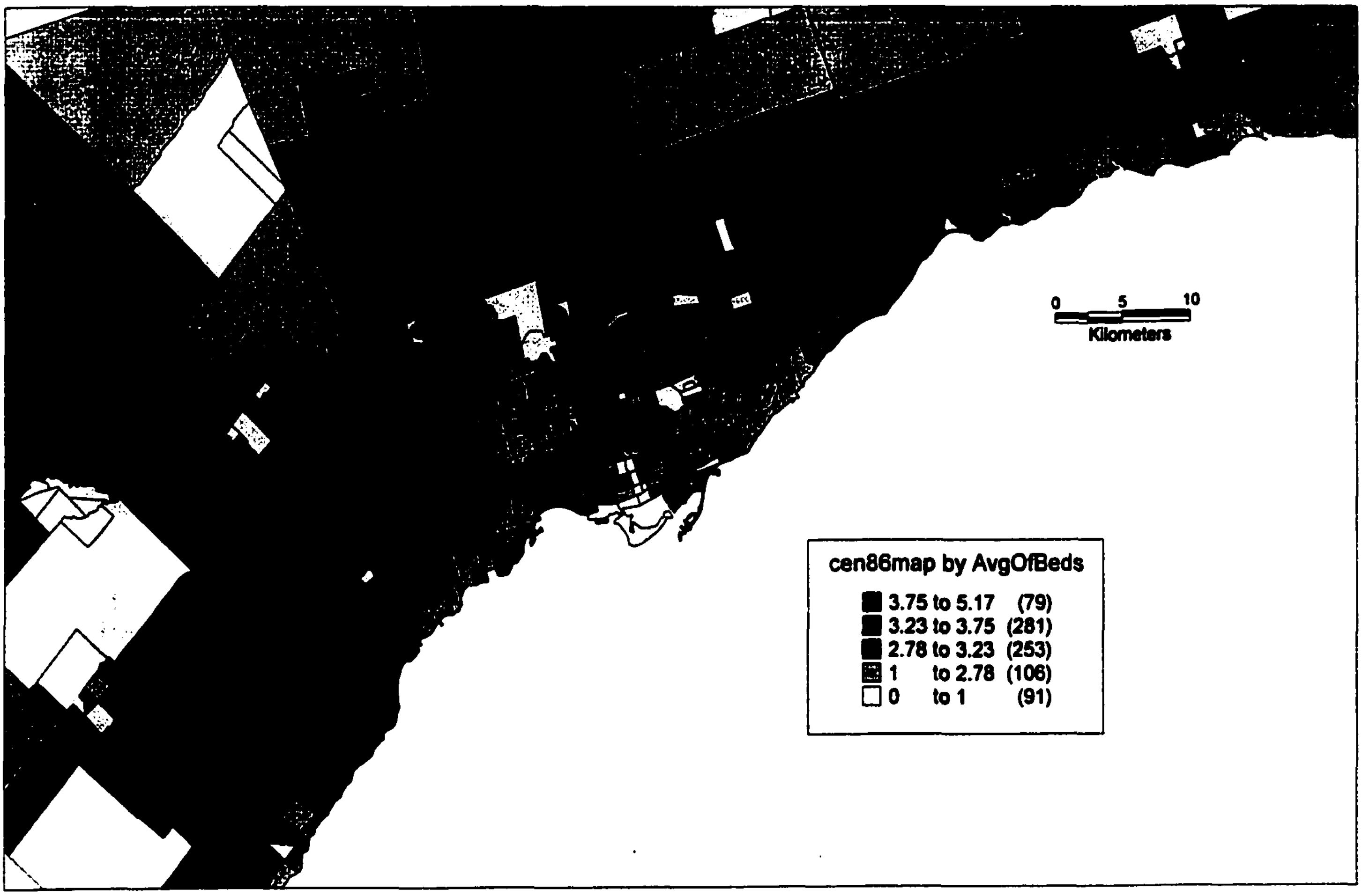
Average Price / Bedroom by CT, Freehold-1990



Average No. of Rooms by CT, Freehold-1990



Average No. of Beds by CT, Freehold 1990



APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.623[a]	.388	.388	.2952

a. Predictors: (Constant), LAG_VAR

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.418	.005		2179.207	.000
	LAG_VAR	3.812E-06	.000	.623	150.434	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.069[a]	.005	.005	.3766
2	.112[b]	.013	.012	.3751
3	.121[c]	.015	.014	.3747

a. Predictors: (Constant), RATE_5

b. Predictors: (Constant), RATE_5, RATE_3

c. Predictors: (Constant), RATE_5, RATE_3, RATE_1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.708	.036		328.003	.000
	RATE_5	4.192E-02	.003	.069	12.983	.000
2	(Constant)	12.097	.042		285.020	.000
	RATE_5	.253	.013	.413	19.509	.000
	RATE_3	-.256	.015	-.356	-16.798	.000
3	(Constant)	12.211	.044		275.043	.000
	RATE_5	.216	.014	.353	15.828	.000
	RATE_3	-.337	.018	-.467	-18.845	.000
	RATE_1	.117	.014	.176	8.621	.000

a. Dependent Variable: LOG_PRIC

APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.489[a]	.239	.239	.3293
2	.526[b]	.277	.277	.3210
3	.529[c]	.279	.279	.3204
4	.529[d]	.280	.280	.3204

a. Predictors: (Constant), NO_WASH

b. Predictors: (Constant), NO_WASH, BEDS

c. Predictors: (Constant), NO_WASH, BEDS, ROOMS

d. Predictors: (Constant), NO_WASH, BEDS, ROOMS, TAXES

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.751	.004		2714.455	.000
	NO_WASH	.188	.002	.489	105.762	.000
2	(Constant)	11.560	.006		1889.611	.000
	NO_WASH	.155	.002	.404	82.439	.000
	BEDS	8.239E-02	.002	.212	43.268	.000
3	(Constant)	11.529	.007		1738.198	.000
	NO_WASH	.152	.002	.395	79.815	.000
	BEDS	7.316E-02	.002	.188	35.583	.000
	ROOMS	1.046E-02	.001	.060	11.764	.000
4	(Constant)	11.529	.007		1737.545	.000
	NO_WASH	.152	.002	.395	79.496	.000
	BEDS	7.323E-02	.002	.189	35.617	.000
	ROOMS	1.056E-02	.001	.061	11.869	.000
	TAXES	5.692E-06	.000	.013	2.780	.005

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.821[a]	.674	.674	.2154

a. Predictors: (Constant), LSTPRC

APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	11.628	.002		5057.439	.000
	LSTPRC	2.478E-06	.000	.821	271.726	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.381[a]	.145	.145	.3309
2	.382[b]	.146	.146	.3308
3	.382[c]	.146	.146	.3308

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.145	5701.055	1	33530	.000
2	.000	18.474	1	33529	.000
3	.000	4.538	1	33528	.033

a. Predictors: (Constant), PARK_CAP

b. Predictors: (Constant), PARK_CAP, LONG

c. Predictors: (Constant), PARK_CAP, LONG, LAT

APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	11.983	.003		3872.450	.000
	PARK_CAP	.183	.002	.381	75.505	.000
2	(Constant)	8.438	.825		10.229	.000
	PARK_CAP	.182	.002	.380	75.058	.000
	LONG	-4.465E-02	.010	-.022	-4.298	.000
3	(Constant)	4.480	2.033		2.204	.028
	PARK_CAP	.181	.003	.377	71.707	.000
	LONG	-6.424E-02	.014	-.031	-4.631	.000
	LAT	5.499E-02	.026	.015	2.130	.033

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.130[a]	.017	.017	.3742
2	.158[b]	.025	.025	.3727
3	.170[c]	.029	.029	.3719
4	.171[d]	.029	.029	.3719

Model Summary

Model	Change Statistics R Square Change	F Change	df1	df2	Sig. F Change
1	.017	614.205	1	35676	.000
2	.008	291.949	1	35675	.000
3	.004	151.007	1	35674	.000
4	.000	4.544	1	35673	.033

a. Predictors: (Constant), BEACH

b. Predictors: (Constant), BEACH, SUBWAY

c. Predictors: (Constant), BEACH, SUBWAY, MALL

d. Predictors: (Constant), BEACH, SUBWAY, MALL, HWAY

APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.193	.002		5589.279	.000
	BEACH	-.129	.005	-.130	-24.783	.000
2	(Constant)	12.173	.002		4932.069	.000
	BEACH	-.136	.005	-.136	-26.039	.000
	SUBWAY	7.522E-02	.004	.090	17.087	.000
3	(Constant)	12.150	.003		3905.606	.000
	BEACH	-.130	.005	-.131	-24.914	.000
	SUBWAY	7.118E-02	.004	.085	16.157	.000
	MALL	4.873E-02	.004	.065	12.289	.000
4	(Constant)	12.146	.004		3469.198	.000
	BEACH	-.132	.005	-.133	-24.944	.000
	SUBWAY	7.252E-02	.004	.086	16.297	.000
	MALL	4.745E-02	.004	.063	11.831	.000
	HWAY	8.668E-03	.004	.011	2.132	.033

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.216[a]	.047	.047	.3685
2	.254[b]	.064	.064	.3651
3	.267[c]	.071	.071	.3638
4	.287[d]	.083	.082	.3616
5	.305[e]	.093	.093	.3595
6	.310[f]	.096	.096	.3589
7	.332[g]	.110	.110	.3561
8	.332[h]	.110	.110	.3561

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.047	1745.491	1	35676	.000
2	.018	675.361	1	35675	.000
3	.007	266.249	1	35674	.000
4	.011	436.471	1	35673	.000
5	.010	402.339	1	35672	.000
6	.003	122.950	1	35671	.000
7	.014	568.255	1	35670	.000
8	.000	4.009	1	35669	.045

a. Predictors: (Constant), D_YDALE

b. Predictors: (Constant), D_YDALE, D_CBD

c. Predictors: (Constant), D_YDALE, D_CBD, D_EAT

d. Predictors: (Constant), D_YDALE, D_CBD, D_EAT, D_PICK

e. Predictors: (Constant), D_YDALE, D_CBD, D_EAT, D_PICK, D_BRAM

f. Predictors: (Constant), D_YDALE, D_CBD, D_EAT, D_PICK, D_BRAM, D_FV

g. Predictors: (Constant), D_YDALE, D_CBD, D_EAT, D_PICK, D_BRAM, D_FV, D_STC

h. Predictors: (Constant), D_YDALE, D_CBD, D_EAT, D_PICK, D_BRAM, D_FV, D_STC, D_MARK

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.310	.004		3185.615	.000
	D_YDALE	-9.099E-03	.000	-.216	-41.779	.000
2	(Constant)	12.286	.004		3120.033	.000
	D_YDALE	-1.899E-02	.000	-.451	-43.402	.000
	D_CBD	1.054E-02	.000	.270	25.988	.000
3	(Constant)	12.227	.005		2291.678	.000
	D_YDALE	-1.441E-02	.001	-.342	-27.773	.000
	D_CBD	.141	.008	3.617	17.611	.000
	D_EAT	-.134	.008	-3.443	-16.317	.000
4	(Constant)	11.941	.015		814.622	.000
	D_YDALE	-2.853E-03	.001	-.068	-3.774	.000
	D_CBD	.416	.015	10.669	27.046	.000
	D_EAT	-.418	.016	-10.746	-26.361	.000
	D_PICK	5.302E-03	.000	.207	20.892	.000

APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
5	(Constant)	11.500	.026		435.937	.000
	D_YDALE	-1.636E-02	.001	-.388	-16.210	.000
	D_CBD	.365	.016	9.340	23.477	.000
	D_EAT	-.359	.016	-9.234	-22.396	.000
	D_PICK	1.241E-02	.000	.485	28.524	.000
	D_BRAM	1.193E-02	.001	.373	20.058	.000
6	(Constant)	11.492	.026		436.220	.000
	D_YDALE	-1.204E-02	.001	-.286	-11.147	.000
	D_CBD	.293	.017	7.517	17.490	.000
	D_EAT	-.287	.017	-7.382	-16.617	.000
	D_PICK	1.515E-02	.000	.592	30.323	.000
	D_BRAM	1.183E-02	.001	.370	19.913	.000
	D_FV	-7.908E-03	.001	-.212	-11.088	.000
7	(Constant)	11.752	.028		415.112	.000
	D_YDALE	5.298E-03	.001	.126	4.089	.000
	D_CBD	.203	.017	5.210	11.915	.000
	D_EAT	-.206	.017	-5.289	-11.768	.000
	D_PICK	3.991E-03	.001	.156	5.855	.000
	D_BRAM	8.305E-03	.001	.260	13.671	.000
	D_FV	-4.365E-02	.002	-1.169	-26.328	.000
	D_STC	3.565E-02	.001	1.107	23.838	.000
8	(Constant)	11.760	.029		411.143	.000
	D_YDALE	5.387E-03	.001	.128	4.156	.000
	D_CBD	.202	.017	5.164	11.793	.000
	D_EAT	-.205	.017	-5.263	-11.708	.000
	D_PICK	4.473E-03	.001	.175	6.188	.000
	D_BRAM	8.353E-03	.001	.261	13.740	.000
	D_FV	-4.193E-02	.002	-1.123	-22.438	.000
	D_STC	3.573E-02	.001	1.110	23.882	.000
	D_MARK	-1.806E-03	.001	-.058	-2.002	.045

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.215[a]	.046	.046	.3686
2	.254[b]	.064	.064	.3651
3	.259[c]	.067	.067	.3646
4	.261[d]	.068	.068	.3644
5	.272[e]	.074	.074	.3633

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.046	1729.745	1	35676	.000
2	.018	688.810	1	35675	.000
3	.003	97.141	1	35674	.000
4	.001	44.106	1	35673	.000
5	.006	220.228	1	35672	.000

a. Predictors: (Constant), OWN_OTH

b. Predictors: (Constant), OWN_OTH, OTH_DWL

c. Predictors: (Constant), OWN_OTH, OTH_DWL, OWN_APT5P

d. Predictors: (Constant), OWN_OTH, OTH_DWL, OWN_APT5P, S_DET

e. Predictors: (Constant), OWN_OTH, OTH_DWL, OWN_APT5P, S_DET, OWN_SDET

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.258	.003		4262.190	.000
	OWN_OTH	-2.695E-04	.000	-.215	-41.590	.000
2	(Constant)	12.227	.003		3967.081	.000
	OWN_OTH	-5.508E-04	.000	-.440	-44.088	.000
	OTH_DWL	2.124E-04	.000	.262	26.245	.000
3	(Constant)	12.222	.003		3902.610	.000
	OWN_OTH	-5.601E-04	.000	-.447	-44.764	.000
	OTH_DWL	2.166E-04	.000	.267	26.762	.000
	OWN_APT5P	1.432E-04	.000	.051	9.856	.000
4	(Constant)	12.250	.005		2307.929	.000
	OWN_OTH	-5.666E-04	.000	-.452	-45.171	.000
	OTH_DWL	2.083E-04	.000	.257	25.454	.000
	OWN_APT5P	1.317E-04	.000	.046	9.002	.000
	S_DET	-2.220E-05	.000	-.037	-6.641	.000
5	(Constant)	12.264	.005		2284.536	.000
	OWN_OTH	-6.162E-04	.000	-.492	-47.605	.000
	OTH_DWL	2.439E-04	.000	.300	28.681	.000
	OWN_APT5P	1.255E-04	.000	.044	8.599	.000
	S_DET	-7.353E-04	.000	-1.237	-15.265	.000
	OWN_SDET	7.453E-04	.000	1.204	14.840	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.080[a]	.006	.006	.3762
2	.102[b]	.011	.010	.3755
3	.111[c]	.012	.012	.3751
4	.116[d]	.013	.013	.3749
5	.118[e]	.014	.014	.3748
6	.119[f]	.014	.014	.3748
7	.120[g]	.014	.014	.3748
8	.121[h]	.015	.014	.3747

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.006	229.817	1	35676	.000
2	.004	148.016	1	35675	.000
3	.002	61.601	1	35674	.000
4	.001	43.421	1	35673	.000
5	.000	14.710	1	35672	.000
6	.000	12.334	1	35671	.000
7	.000	7.692	1	35670	.006
8	.000	5.814	1	35669	.016

a. Predictors: (Constant), A1976_80

b. Predictors: (Constant), A1976_80, A1961_70

c. Predictors: (Constant), A1976_80, A1961_70, A1971_75

d. Predictors: (Constant), A1976_80, A1961_70, A1971_75, A1946_60

e. Predictors: (Constant), A1976_80, A1961_70, A1971_75, A1946_60, A1986

f. Predictors: (Constant), A1976_80, A1961_70, A1971_75, A1946_60, A1986, A1981_85

g. Predictors: (Constant), A1976_80, A1961_70, A1971_75, A1946_60, A1986, A1981_85, BEF_1920

h. Predictors: (Constant), A1976_80, A1961_70, A1971_75, A1946_60, A1986, A1981_85, BEF_1920, A1921_45

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.191	.002		5044.447	.000
	A1976_80	-8.868E-05	.000	-.080	-15.160	.000
2	(Constant)	12.167	.003		3880.715	.000
	A1976_80	-7.382E-05	.000	-.067	-12.378	.000
	A1961_70	7.218E-05	.000	.065	12.166	.000
3	(Constant)	12.170	.003		3848.920	.000
	A1976_80	-5.654E-05	.000	-.051	-8.901	.000
	A1961_70	8.746E-05	.000	.079	14.017	.000
	A1971_75	-5.860E-05	.000	-.045	-7.849	.000
4	(Constant)	12.155	.004		3134.711	.000
	A1976_80	-4.535E-05	.000	-.041	-6.900	.000
	A1961_70	7.749E-05	.000	.070	12.075	.000
	A1971_75	-4.996E-05	.000	-.039	-6.595	.000
	A1946_60	3.883E-05	.000	.038	6.589	.000

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
5	(Constant)	12.148	.004		2831.572	.000
	A1976_80	-4.516E-05	.000	-.041	-6.872	.000
	A1961_70	8.072E-05	.000	.073	12.474	.000
	A1971_75	-4.485E-05	.000	-.035	-5.831	.000
	A1946_60	4.342E-05	.000	.043	7.222	.000
	A1986	1.122E-04	.000	.021	3.835	.000
6	(Constant)	12.153	.004		2727.010	.000
	A1976_80	-3.671E-05	.000	-.033	-5.246	.000
	A1961_70	7.891E-05	.000	.072	12.158	.000
	A1971_75	-4.939E-05	.000	-.038	-6.334	.000
	A1946_60	3.985E-05	.000	.039	6.536	.000
	A1986	1.911E-04	.000	.036	5.181	.000
	A1981_85	-1.691E-05	.000	-.027	-3.512	.000
7	(Constant)	12.162	.006		2188.485	.000
	A1976_80	-4.093E-05	.000	-.037	-5.716	.000
	A1961_70	7.555E-05	.000	.069	11.445	.000
	A1971_75	-5.402E-05	.000	-.042	-6.775	.000
	A1946_60	3.613E-05	.000	.036	5.788	.000
	A1986	1.821E-04	.000	.035	4.920	.000
	A1981_85	-1.975E-05	.000	-.031	-4.012	.000
	BEF_1920	-2.674E-05	.000	-.017	-2.774	.006
8	(Constant)	12.157	.006		2076.257	.000
	A1976_80	-3.842E-05	.000	-.035	-5.312	.000
	A1961_70	7.919E-05	.000	.072	11.696	.000
	A1971_75	-5.227E-05	.000	-.040	-6.529	.000
	A1946_60	3.320E-05	.000	.033	5.223	.000
	A1986	1.904E-04	.000	.036	5.122	.000
	A1981_85	-1.856E-05	.000	-.030	-3.752	.000
	BEF_1920	-4.121E-05	.000	-.026	-3.629	.000
	A1921_45	2.012E-05	.000	.018	2.411	.016

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.376[a]	.141	.141	.3498
2	.384[b]	.148	.148	.3485
3	.398[c]	.158	.158	.3463
4	.417[d]	.174	.174	.3431

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.141	5866.533	1	35676	.000
2	.006	269.180	1	35675	.000
3	.011	459.516	1	35674	.000
4	.015	652.771	1	35673	.000

a. Predictors: (Constant), PPROOM

b. Predictors: (Constant), PPROOM, PPR_GT1

c. Predictors: (Constant), PPROOM, PPR_GT1, PPR_LT1

d. Predictors: (Constant), PPROOM, PPR_GT1, PPR_LT1, PPR_P5

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.198	.014		974.457	.000
	PPROOM	-2.124	.028	-.376	-76.593	.000
2	(Constant)	13.326	.016		854.665	.000
	PPROOM	-2.456	.034	-.435	-71.705	.000
	PPR_GT1	7.351E-04	.000	.099	16.407	.000
3	(Constant)	13.319	.015		859.494	.000
	PPROOM	-2.277	.035	-.403	-64.975	.000
	PPR_GT1	1.208E-03	.000	.163	24.314	.000
	PPR_LT1	-1.618E-04	.000	-.135	-21.436	.000
4	(Constant)	12.878	.023		556.973	.000
	PPROOM	-1.495	.046	-.265	-32.290	.000
	PPR_GT1	1.063E-03	.000	.144	21.440	.000
	PPR_LT1	-3.234E-04	.000	-.271	-33.016	.000
	PPR_P5	1.456E-04	.000	.184	25.549	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.596[a]	.355	.355	.3031
2	.599[b]	.359	.359	.3022
3	.600[c]	.360	.360	.3019

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.355	19630.673	1	35676	.000
2	.004	234.989	1	35675	.000
3	.001	50.569	1	35674	.000

a. Predictors: (Constant), AVG_PR86

b. Predictors: (Constant), AVG_PR86, PR_GT200

c. Predictors: (Constant), AVG_PR86, PR_GT200, PR_LT50K

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.567	.005		2515.121	.000
	AVG_PR86	4.300E-06	.000	.596	140.110	.000
2	(Constant)	11.621	.006		2011.237	.000
	AVG_PR86	3.723E-06	.000	.516	76.704	.000
	PR_GT200	1.654E-04	.000	.103	15.329	.000
3	(Constant)	11.652	.007		1595.245	.000
	AVG_PR86	3.599E-06	.000	.499	69.826	.000
	PR_GT200	1.859E-04	.000	.116	16.654	.000
	PR_LT50K	-4.539E-04	.000	-.032	-7.111	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.148[a]	.022	.022	.3733
2	.179[b]	.032	.032	.3713
3	.213[c]	.045	.045	.3688
4	.219[d]	.048	.048	.3683
5	.221[e]	.049	.049	.3682

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.022	802.959	1	35676	.000
2	.010	372.707	1	35675	.000
3	.013	489.948	1	35674	.000
4	.003	108.328	1	35673	.000
5	.001	21.014	1	35672	.000

a. Predictors: (Constant), POPLT15

b. Predictors: (Constant), POPLT15, POPUL

c. Predictors: (Constant), POPLT15, POPUL, POP15_39

d. Predictors: (Constant), POPLT15, POPUL, POP15_39, POPGT59

e. Predictors: (Constant), POPLT15, POPUL, POP15_39, POPGT59, POP_15P

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.259	.004		3329.180	.000
	POPLT15	-7.197E-05	.000	-.148	-28.337	.000
2	(Constant)	12.167	.006		2028.260	.000
	POPLT15	-1.669E-04	.000	-.344	-30.187	.000
	POPUL	3.709E-05	.000	.220	19.306	.000
3	(Constant)	12.150	.006		2022.657	.000
	POPLT15	-1.198E-04	.000	-.247	-20.332	.000
	POPUL	1.131E-04	.000	.671	28.788	.000
	POP15_39	-1.871E-04	.000	-.552	-22.135	.000
4	(Constant)	12.146	.006		2020.999	.000
	POPLT15	-2.199E-04	.000	-.453	-19.505	.000
	POPUL	1.793E-04	.000	1.064	24.008	.000
	POP15_39	-2.502E-04	.000	-.738	-24.075	.000
	POPGT59	-1.272E-04	.000	-.131	-10.408	.000
5	(Constant)	12.145	.006		2020.997	.000
	POPLT15	-3.275E-04	.000	-.675	-12.576	.000
	POPUL	2.847E-04	.000	1.689	11.775	.000
	POP15_39	-2.543E-04	.000	-.750	-24.385	.000
	POPGT59	-1.399E-04	.000	-.144	-11.170	.000
	POP_15P	-1.012E-04	.000	-.424	-4.584	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.389[a]	.152	.152	.3477
2	.492[b]	.242	.242	.3286
3	.505[c]	.255	.255	.3257
4	.508[d]	.258	.258	.3252
5	.509[e]	.259	.259	.3248
6	.510[f]	.260	.260	.3246

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.152	6375.027	1	35676	.000
2	.090	4250.142	1	35675	.000
3	.013	644.264	1	35674	.000
4	.002	111.073	1	35673	.000
5	.002	85.100	1	35672	.000
6	.001	45.087	1	35671	.000

a. Predictors: (Constant), EDU_UNV

b. Predictors: (Constant), EDU_UNV, EDU_DIP_2

c. Predictors: (Constant), EDU_UNV, EDU_DIP_2, EDU_LT13

d. Predictors: (Constant), EDU_UNV, EDU_DIP_2, EDU_LT13, EDUNODIP

e. Predictors: (Constant), EDU_UNV, EDU_DIP_2, EDU_LT13, EDUNODIP, EDU_LT9

f. Predictors: (Constant), EDU_UNV, EDU_DIP_2, EDU_LT13, EDUNODIP, EDU_LT9, EDU_TRAD

APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	11.961	.003		3729.754	.000
	EDU_UNV	3.465E-04	.000	.389	79.844	.000
2	(Constant)	12.115	.004		3149.110	.000
	EDU_UNV	5.828E-04	.000	.655	106.463	.000
	EDU_DIP_2	-5.046E-04	.000	-.401	-65.193	.000
3	(Constant)	12.202	.005		2385.726	.000
	EDU_UNV	5.141E-04	.000	.578	84.781	.000
	EDU_DIP_2	-3.394E-04	.000	-.270	-33.729	.000
	EDU_LT13	-1.293E-04	.000	-.152	-25.382	.000
4	(Constant)	12.202	.005		2389.345	.000
	EDU_UNV	4.669E-04	.000	.525	62.016	.000
	EDU_DIP_2	-4.283E-04	.000	-.340	-32.645	.000
	EDU_LT13	-1.830E-04	.000	-.216	-25.424	.000
	EDUNODIP	2.448E-04	.000	.156	10.539	.000
5	(Constant)	12.210	.005		2362.149	.000
	EDU_UNV	4.723E-04	.000	.531	62.620	.000
	EDU_DIP_2	-4.767E-04	.000	-.379	-33.770	.000
	EDU_LT13	-1.477E-04	.000	-.174	-18.125	.000
	EDUNODIP	2.552E-04	.000	.162	10.988	.000
	EDU_LT9	-4.457E-05	.000	-.055	-9.225	.000
6	(Constant)	12.211	.005		2363.437	.000
	EDU_UNV	4.935E-04	.000	.555	60.398	.000
	EDU_DIP_2	-5.345E-04	.000	-.425	-32.345	.000
	EDU_LT13	-1.755E-04	.000	-.207	-19.207	.000
	EDUNODIP	2.342E-04	.000	.149	9.998	.000
	EDU_LT9	-4.088E-05	.000	-.051	-8.412	.000
	EDU_TRAD	1.937E-04	.000	.078	6.715	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.466[a]	.217	.217	.3339
2	.490[b]	.240	.240	.3290
3	.496[c]	.246	.246	.3278
4	.499[d]	.249	.249	.3271
5	.500[e]	.250	.250	.3270
6	.500[f]	.250	.250	.3269
7	.500[g]	.250	.250	.3269

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.217	9908.406	1	35676	.000
2	.023	1072.732	1	35675	.000
3	.006	261.401	1	35674	.000
4	.003	155.295	1	35673	.000
5	.001	29.441	1	35672	.000
6	.000	20.243	1	35671	.000
7	.000	5.039	1	35670	.025

a. Predictors: (Constant), AVG_INC

b. Predictors: (Constant), AVG_INC, PAR_RATE

c. Predictors: (Constant), AVG_INC, PAR_RATE, UNEMPL

d. Predictors: (Constant), AVG_INC, PAR_RATE, UNEMPL, IN_LABF

e. Predictors: (Constant), AVG_INC, PAR_RATE, UNEMPL, IN_LABF, P15P_WRK

f. Predictors: (Constant), AVG_INC, PAR_RATE, UNEMPL, IN_LABF, P15P_WRK, NOT_LF

g. Predictors: (Constant), AVG_INC, PAR_RATE, UNEMPL, IN_LABF, P15P_WRK, NOT_LF, UE_RATE

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.464	.007		1566.875	.000
	AVG_INC	3.258E-05	.000	.466	99.541	.000
2	(Constant)	12.114	.021		573.685	.000
	AVG_INC	3.500E-05	.000	.501	105.785	.000
	PAR_RATE	-9.620E-03	.000	-.155	-32.753	.000
3	(Constant)	12.016	.022		548.876	.000
	AVG_INC	3.740E-05	.000	.535	103.466	.000
	PAR_RATE	-9.931E-03	.000	-.160	-33.861	.000
	UNEMPL	4.108E-04	.000	.082	16.168	.000
4	(Constant)	11.856	.025		467.950	.000
	AVG_INC	3.878E-05	.000	.555	102.782	.000
	PAR_RATE	-7.748E-03	.000	-.125	-22.714	.000
	UNEMPL	8.025E-04	.000	.159	19.872	.000
	IN_LABF	-2.970E-05	.000	-.099	-12.462	.000
5	(Constant)	11.840	.026		464.201	.000
	AVG_INC	3.825E-05	.000	.547	98.243	.000
	PAR_RATE	-7.404E-03	.000	-.119	-21.351	.000
	UNEMPL	8.973E-04	.000	.178	20.400	.000
	IN_LABF	-2.052E-04	.000	-.685	-6.327	.000
	P15P_WRK	1.702E-04	.000	.571	5.426	.000
6	(Constant)	11.589	.061		189.266	.000
	AVG_INC	3.812E-05	.000	.545	97.624	.000
	PAR_RATE	-4.019E-03	.001	-.065	-4.852	.000
	UNEMPL	8.307E-04	.000	.165	17.901	.000
	IN_LABF	-2.141E-04	.000	-.715	-6.592	.000
	P15P_WRK	1.605E-04	.000	.539	5.107	.000
	NOT_LF	6.666E-05	.000	.077	4.499	.000
7	(Constant)	11.685	.075		156.450	.000
	AVG_INC	3.790E-05	.000	.542	94.235	.000
	PAR_RATE	-4.793E-03	.001	-.077	-5.342	.000
	UNEMPL	1.036E-03	.000	.206	10.111	.000
	IN_LABF	-2.245E-04	.000	-.749	-6.843	.000
	P15P_WRK	1.655E-04	.000	.555	5.252	.000
	NOT_LF	5.252E-05	.000	.061	3.262	.001
	UE_RATE	-6.648E-03	.003	-.032	-2.245	.025

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.078[a]	.006	.006	.3763
2	.104[b]	.011	.011	.3754
3	.112[c]	.013	.012	.3751
4	.115[d]	.013	.013	.3750
5	.116[e]	.013	.013	.3749

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.006	219.588	1	35676	.000
2	.005	171.558	1	35675	.000
3	.002	60.310	1	35674	.000
4	.001	25.077	1	35673	.000
5	.000	7.350	1	35672	.007

a. Predictors: (Constant), MOV_NOMI

b. Predictors: (Constant), MOV_NOMI, MIG_NONO

c. Predictors: (Constant), MOV_NOMI, MIG_NONO, MIG_ONT

d. Predictors: (Constant), MOV_NOMI, MIG_NONO, MIG_ONT, NON_MOV

e. Predictors: (Constant), MOV_NOMI, MIG_NONO, MIG_ONT, NON_MOV, IMMGRNT

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
1	(Constant)	12.213	.003		3505.578	.000
	MOV_NOMI	-2.842E-05	.000	-.078	-14.819	.000
2	(Constant)	12.194	.004		3253.124	.000
	MOV_NOMI	-4.451E-05	.000	-.122	-19.575	.000
	MIG_NONO	2.433E-04	.000	.082	13.098	.000
3	(Constant)	12.195	.004		3254.667	.000
	MOV_NOMI	-3.758E-05	.000	-.103	-15.399	.000
	MIG_NONO	2.885E-04	.000	.097	14.832	.000
	MIG_ONT	-2.443E-05	.000	-.051	-7.766	.000
4	(Constant)	12.221	.006		1910.381	.000
	MOV_NOMI	-3.454E-05	.000	-.095	-13.739	.000
	MIG_NONO	2.924E-04	.000	.098	15.026	.000
	MIG_ONT	-3.123E-05	.000	-.065	-9.118	.000
	NON_MOV	-1.054E-05	.000	-.029	-5.008	.000
5	(Constant)	12.221	.006		1910.375	.000
	MOV_NOMI	-3.870E-05	.000	-.106	-13.144	.000
	MIG_NONO	2.862E-04	.000	.096	14.608	.000
	MIG_ONT	-2.998E-05	.000	-.062	-8.677	.000
	NON_MOV	-1.129E-05	.000	-.031	-5.321	.000
	IMMGRNT	3.709E-05	.000	.019	2.711	.007

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.509[a]	.259	.259	.3249
2	.529[b]	.280	.280	.3204
3	.532[c]	.283	.283	.3196
4	.539[d]	.290	.290	.3180
5	.545[e]	.297	.297	.3165
6	.546[f]	.298	.298	.3162
7	.547[g]	.299	.299	.3161
8	.547[h]	.300	.300	.3159
9	.548[i]	.301	.300	.3157
10	.548[j]	.301	.300	.3157
11	.549[k]	.301	.301	.3156
12	.549[l]	.301	.301	.3155
13	.549[m]	.301	.301	.3155

Model Summary

	Change Statistics				
Model	R Square Change	F Change	df1	df2	Sig. F Change
1	.259	12476.190	1	35676	.000
2	.021	1016.036	1	35675	.000
3	.003	167.010	1	35674	.000
4	.007	369.466	1	35673	.000
5	.007	330.354	1	35672	.000
6	.001	72.352	1	35671	.000
7	.001	35.232	1	35670	.000
8	.001	39.965	1	35669	.000
9	.001	40.752	1	35668	.000
10	.000	1.586	1	35670	.208
11	.000	23.253	1	35668	.000
12	.000	20.841	1	35667	.000
13	.000	4.630	1	35666	.031

a. Predictors: (Constant), CF_AINC

b. Predictors: (Constant), CF_AINC, FAAVGKID

c. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER

d. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_4PER

e. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_4PER, FAM_5PER

f. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_4PER, FAM_5PER, FAM_6PER

g. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_4PER, FAM_5PER, FAM_6PER, FAM_2PER

h. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_4PER, FAM_5PER, FAM_6PER, FAM_2PER, FAM_8P

i. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_4PER, FAM_5PER, FAM_6PER, FAM_2PER, FAM_8P, TOT_FAM

j. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_5PER, FAM_6PER, FAM_2PER, FAM_8P, TOT_FAM

k. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_5PER, FAM_6PER, FAM_2PER, FAM_8P, TOT_FAM, FAM_WKID

l. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_5PER, FAM_6PER, FAM_2PER, FAM_8P, TOT_FAM, FAM_WKID, CEN_FAM

m. Predictors: (Constant), CF_AINC, FAAVGKID, FAM_7PER, FAM_5PER, FAM_6PER, FAM_2PER, FAM_8P, TOT_FAM, FAM_WKID, CEN_FAM, FAM_AVGP

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.599	.005		2147.046	.000
	CF_AINC	1.213E-05	.000	.509	111.697	.000
2	(Constant)	11.875	.010		1167.621	.000
	CF_AINC	1.211E-05	.000	.508	113.070	.000
	FAAVGKID	-.210	.007	-.143	-31.875	.000
3	(Constant)	11.896	.010		1157.839	.000
	CF_AINC	1.240E-05	.000	.520	113.560	.000
	FAAVGKID	-.258	.008	-.176	-34.168	.000
	FAM_7PER	4.002E-03	.000	.068	12.923	.000
4	(Constant)	11.860	.010		1142.280	.000
	CF_AINC	1.269E-05	.000	.532	115.700	.000
	FAAVGKID	-.201	.008	-.137	-24.747	.000
	FAM_7PER	6.404E-03	.000	.108	19.263	.000
	FAM_4PER	-1.755E-04	.000	-.110	-19.221	.000
5	(Constant)	11.936	.011		1070.913	.000
	CF_AINC	1.252E-05	.000	.525	114.328	.000
	FAAVGKID	-.263	.009	-.179	-30.008	.000
	FAM_7PER	3.470E-03	.000	.059	9.424	.000
	FAM_4PER	-5.497E-04	.000	-.344	-24.427	.000
	FAM_5PER	1.229E-03	.000	.301	18.176	.000
6	(Constant)	11.932	.011		1070.557	.000
	CF_AINC	1.267E-05	.000	.532	114.306	.000
	FAAVGKID	-.270	.009	-.184	-30.687	.000
	FAM_7PER	1.868E-03	.000	.032	4.519	.000
	FAM_4PER	-5.220E-04	.000	-.327	-22.975	.000
	FAM_5PER	8.795E-04	.000	.216	11.117	.000
	FAM_6PER	1.622E-03	.000	.101	8.506	.000
7	(Constant)	11.813	.023		516.189	.000
	CF_AINC	1.280E-05	.000	.537	113.407	.000
	FAAVGKID	-.197	.015	-.134	-13.042	.000
	FAM_7PER	1.607E-03	.000	.027	3.869	.000
	FAM_4PER	-5.584E-04	.000	-.350	-23.739	.000
	FAM_5PER	8.623E-04	.000	.211	10.897	.000
	FAM_6PER	1.372E-03	.000	.085	7.029	.000
	FAM_2PER	8.622E-05	.000	.049	5.936	.000

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
8	(Constant)	11.805	.023		515.127	.000
	CF_AINC	1.275E-05	.000	.535	112.751	.000
	FAAVGKID	-.189	.015	-.129	-12.465	.000
	FAM_7PER	2.313E-03	.000	.039	5.379	.000
	FAM_4PER	-5.828E-04	.000	-.365	-24.463	.000
	FAM_5PER	8.809E-04	.000	.216	11.131	.000
	FAM_6PER	1.607E-03	.000	.100	8.091	.000
	FAM_2PER	9.439E-05	.000	.054	6.476	.000
	FAM_8P	-3.796E-03	.001	-.037	-6.322	.000
9	(Constant)	11.795	.023		513.770	.000
	CF_AINC	1.246E-05	.000	.523	102.048	.000
	FAAVGKID	-.171	.015	-.116	-11.068	.000
	FAM_7PER	2.869E-03	.000	.049	6.545	.000
	FAM_4PER	-9.989E-05	.000	-.063	-1.259	.208
	FAM_5PER	1.051E-03	.000	.258	12.593	.000
	FAM_6PER	2.077E-03	.000	.129	9.811	.000
	FAM_2PER	4.928E-04	.000	.281	7.690	.000
	FAM_8P	-3.870E-03	.001	-.037	-6.447	.000
	TOT_FAM	-3.047E-04	.000	-.491	-6.384	.000
10	(Constant)	11.794	.023		514.019	.000
	CF_AINC	1.240E-05	.000	.520	108.865	.000
	FAAVGKID	-.168	.015	-.114	-11.001	.000
	FAM_7PER	2.997E-03	.000	.051	7.023	.000
	FAM_5PER	1.059E-03	.000	.260	12.725	.000
	FAM_6PER	2.178E-03	.000	.135	11.098	.000
	FAM_2PER	5.663E-04	.000	.323	21.360	.000
	FAM_8P	-3.847E-03	.001	-.037	-6.411	.000
	TOT_FAM	-3.620E-04	.000	-.584	-25.264	.000
11	(Constant)	11.807	.023		511.075	.000
	CF_AINC	1.262E-05	.000	.530	102.989	.000
	FAAVGKID	-.186	.016	-.127	-11.846	.000
	FAM_7PER	2.591E-03	.000	.044	5.961	.000
	FAM_5PER	1.040E-03	.000	.255	12.485	.000
	FAM_6PER	2.199E-03	.000	.136	11.208	.000
	FAM_2PER	7.494E-04	.000	.428	16.183	.000
	FAM_8P	-4.203E-03	.001	-.041	-6.954	.000
	TOT_FAM	-6.130E-04	.000	-.988	-11.356	.000
	FAM_WKID	2.683E-04	.000	.359	4.822	.000

Coefficients[a]

Model		Unstandardized Coefficients B	Unstandardized Coefficients Std. Error	Standardized Coefficients Beta	t	Sig.
12	(Constant)	11.809	.023		511.174	.000
	CF_AINC	1.260E-05	.000	.529	102.736	.000
	FAAVGKID	-.187	.016	-.128	-11.908	.000
	FAM_7PER	2.771E-03	.000	.047	6.351	.000
	FAM_5PER	1.032E-03	.000	.253	12.396	.000
	FAM_6PER	2.150E-03	.000	.133	10.944	.000
	FAM_2PER	7.345E-04	.000	.419	15.828	.000
	FAM_8P	-4.089E-03	.001	-.039	-6.763	.000
	TOT_FAM	-1.261E-03	.000	-2.033	-8.303	.000
	FAM_WKID	2.597E-04	.000	.348	4.666	.000
	CEN_FAM	6.606E-04	.000	1.064	4.565	.000
13	(Constant)	11.844	.028		421.526	.000
	CF_AINC	1.258E-05	.000	.528	102.447	.000
	FAAVGKID	-.175	.017	-.119	-10.478	.000
	FAM_7PER	2.724E-03	.000	.046	6.235	.000
	FAM_5PER	1.031E-03	.000	.253	12.384	.000
	FAM_6PER	2.115E-03	.000	.131	10.730	.000
	FAM_2PER	7.183E-04	.000	.410	15.281	.000
	FAM_8P	-3.977E-03	.001	-.038	-6.553	.000
	TOT_FAM	-1.215E-03	.000	-1.958	-7.919	.000
	FAM_WKID	2.392E-04	.000	.320	4.236	.000
	CEN_FAM	6.359E-04	.000	1.024	4.381	.000
	FAM_AVGP	-1.587E-02	.007	-.012	-2.152	.031

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.106[a]	.011	.011	.3753
2	.309[b]	.095	.095	.3590
3	.314[c]	.099	.099	.3583
4	.315[d]	.099	.099	.3583

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.011	403.801	1	35676	.000
2	.084	3318.523	1	35675	.000
3	.004	138.839	1	35674	.000
4	.000	4.717	1	35673	.030

a. Predictors: (Constant), SEPARATED

b. Predictors: (Constant), SEPARATED, DIVORCED

c. Predictors: (Constant), SEPARATED, DIVORCED, SINGLE

d. Predictors: (Constant), SEPARATED, DIVORCED, SINGLE, WIDOWED

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.244	.004		2939.245	.000
	SEPARATED	-6.060E-04	.000	-.106	-20.095	.000
2	(Constant)	12.260	.004		3069.608	.000
	SEPARATED	-4.176E-03	.000	-.729	-61.092	.000
	DIVORCED	3.348E-03	.000	.687	57.607	.000
3	(Constant)	12.223	.005		2404.413	.000
	SEPARATED	-4.659E-03	.000	-.813	-58.543	.000
	DIVORCED	3.608E-03	.000	.741	58.132	.000
	SINGLE	2.611E-05	.000	.073	11.783	.000
4	(Constant)	12.226	.005		2288.639	.000
	SEPARATED	-4.680E-03	.000	-.817	-58.390	.000
	DIVORCED	3.670E-03	.000	.754	53.776	.000
	SINGLE	2.648E-05	.000	.074	11.914	.000
	WIDOWED	-4.081E-05	.000	-.015	-2.172	.030

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.199[a]	.040	.040	.3699
2	.289[b]	.083	.083	.3614
3	.421[c]	.177	.177	.3423
4	.458[d]	.210	.209	.3356
5	.459[e]	.210	.210	.3354

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.040	1477.492	1	35676	.000
2	.044	1697.925	1	35675	.000
3	.094	4076.741	1	35674	.000
4	.032	1450.714	1	35673	.000
5	.001	32.181	1	35672	.000

a. Predictors: (Constant), SH_LT2H

b. Predictors: (Constant), SH_LT2H, SH_7TO1K

c. Predictors: (Constant), SH_LT2H, SH_7TO1K, SH_1KP

d. Predictors: (Constant), SH_LT2H, SH_7TO1K, SH_1KP, SH_4TO7H

e. Predictors: (Constant), SH_LT2H, SH_7TO1K, SH_1KP, SH_4TO7H, SH_2TO4H

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.242	.003		4522.416	.000
	SH_LT2H	-7.154E-04	.000	-.199	-38.438	.000
2	(Constant)	12.341	.004		3457.410	.000
	SH_LT2H	-8.111E-04	.000	-.226	-44.247	.000
	SH_7TO1K	-2.934E-04	.000	-.211	-41.206	.000
3	(Constant)	12.263	.004		3410.995	.000
	SH_LT2H	-4.057E-04	.000	-.113	-21.942	.000
	SH_7TO1K	-8.419E-04	.000	-.604	-77.081	.000
	SH_1KP	8.201E-04	.000	.523	63.849	.000
4	(Constant)	12.177	.004		2907.637	.000
	SH_LT2H	-5.439E-04	.000	-.152	-29.423	.000
	SH_7TO1K	-9.681E-04	.000	-.695	-86.376	.000
	SH_1KP	8.211E-04	.000	.523	65.209	.000
	SH_4TO7H	6.328E-04	.000	.202	38.088	.000
5	(Constant)	12.191	.005		2514.564	.000
	SH_LT2H	-5.163E-04	.000	-.144	-27.022	.000
	SH_7TO1K	-9.818E-04	.000	-.705	-85.662	.000
	SH_1KP	8.292E-04	.000	.528	65.460	.000
	SH_4TO7H	6.539E-04	.000	.209	38.424	.000
	SH_2TO4H	-4.987E-05	.000	-.029	-5.673	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.610[a]	.372	.372	.2992
2	.616[b]	.379	.379	.2974

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.372	21104.318	1	35673	.000
2	.008	433.773	1	35672	.000

a. Predictors: (Constant), CT_AVP

b. Predictors: (Constant), CT_AVP, INV_D

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.892	.064		45.256	.000
	CT_AVP	.786	.005	.610	145.273	.000
2	(Constant)	2.834	.064		44.589	.000
	CT_AVP	.788	.005	.611	146.486	.000
	INV_D	.355	.017	.087	20.827	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.135[a]	.018	.018	.3740
2	.151[b]	.023	.023	.3731
3	.152[c]	.023	.023	.3731
4	.153[d]	.023	.023	.3730

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.018	657.303	1	35676	.000
2	.005	172.649	1	35675	.000
3	.000	8.480	1	35674	.004
4	.000	12.866	1	35673	.000

a. Predictors: (Constant), PARK_PRV

b. Predictors: (Constant), PARK_PRV, PARK_NON

c. Predictors: (Constant), PARK_PRV, PARK_NON, PARK_LAN

d. Predictors: (Constant), PARK_PRV, PARK_NON, PARK_LAN, PARK_MUT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.085	.004		3112.457	.000
	PARK_PRV	.116	.005	.135	25.638	.000
2	(Constant)	12.112	.004		2763.386	.000
	PARK_PRV	8.878E-02	.005	.103	17.941	.000
	PARK_NON	-.123	.009	-.076	-13.140	.000
3	(Constant)	12.101	.006		2112.305	.000
	PARK_PRV	9.952E-02	.006	.116	16.125	.000
	PARK_NON	-.112	.010	-.069	-11.159	.000
	PARK_LAN	2.590E-02	.009	.019	2.912	.004
4	(Constant)	12.069	.011		1143.492	.000
	PARK_PRV	.131	.011	.153	12.157	.000
	PARK_NON	-8.052E-02	.013	-.049	-6.004	.000
	PARK_LAN	5.770E-02	.013	.042	4.595	.000
	PARK_MUT	4.507E-02	.013	.033	3.587	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.136[a]	.019	.019	.3739
2	.149[b]	.022	.022	.3732
3	.151[c]	.023	.023	.3731

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.019	674.686	1	35676	.000
2	.004	132.979	1	35675	.000
3	.001	21.568	1	35674	.000

a. Predictors: (Constant), POOL_UG

b. Predictors: (Constant), POOL_UG, POOL_IND

c. Predictors: (Constant), POOL_UG, POOL_IND, POOL_ABV

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.161	.002		6038.185	.000
	POOL_UG	.284	.011	.136	25.975	.000
2	(Constant)	12.160	.002		6045.718	.000
	POOL_UG	.285	.011	.137	26.092	.000
	POOL_IND	.708	.061	.060	11.532	.000
3	(Constant)	12.161	.002		6015.452	.000
	POOL_UG	.284	.011	.136	26.006	.000
	POOL_IND	.707	.061	.060	11.519	.000
	POOL_ABV	-9.070E-02	.020	-.024	-4.644	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.265[a]	.070	.070	.3639
2	.373[b]	.139	.139	.3502
3	.403[c]	.163	.163	.3454
4	.405[d]	.164	.164	.3451
5	.407[e]	.165	.165	.3448
6	.408[f]	.167	.167	.3446
7	.410[g]	.168	.168	.3443
8	.411[h]	.169	.168	.3442
9	.411[i]	.169	.169	.3441

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.070	2698.979	1	35676	.000
2	.069	2847.148	1	35675	.000
3	.024	1005.761	1	35674	.000
4	.001	54.238	1	35673	.000
5	.002	65.442	1	35672	.000
6	.001	57.332	1	35671	.000
7	.001	46.795	1	35670	.000
8	.001	31.502	1	35669	.000
9	.000	9.756	1	35668	.002

a. Predictors: (Constant), DETACH

b. Predictors: (Constant), DETACH, THREE_ST

c. Predictors: (Constant), DETACH, THREE_ST, BUNGLOW

d. Predictors: (Constant), DETACH, THREE_ST, BUNGLOW, TWO_STO

e. Predictors: (Constant), DETACH, THREE_ST, BUNGLOW, TWO_STO, SIDESPLT

f. Predictors: (Constant), DETACH, THREE_ST, BUNGLOW, TWO_STO, SIDESPLT, BACKSPLT

g. Predictors: (Constant), DETACH, THREE_ST, BUNGLOW, TWO_STO, SIDESPLT, BACKSPLT, ATTCH

h. Predictors: (Constant), DETACH, THREE_ST, BUNGLOW, TWO_STO, SIDESPLT, BACKSPLT, ATTCH, SEMI

i. Predictors: (Constant), DETACH, THREE_ST, BUNGLOW, TWO_STO, SIDESPLT, BACKSPLT, ATTCH, SEMI, LINK

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.035	.003		3704.558	.000
	DETACH	.210	.004	.265	51.952	.000
2	(Constant)	11.989	.003		3696.161	.000
	DETACH	.240	.004	.304	61.232	.000
	THREE_ST	.408	.008	.265	53.359	.000
3	(Constant)	12.007	.003		3693.688	.000
	DETACH	.266	.004	.337	67.267	.000
	THREE_ST	.380	.008	.247	50.036	.000
	BUNGLOW	-.141	.004	-.159	-31.714	.000
4	(Constant)	11.975	.005		2197.772	.000
	DETACH	.268	.004	.339	67.675	.000
	THREE_ST	.412	.009	.267	47.266	.000
	BUNGLOW	-.111	.006	-.124	-18.245	.000
	TWO_STO	3.932E-02	.005	.052	7.365	.000

APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
5	(Constant)	11.959	.006		2063.130	.000
	DETACH	.265	.004	.335	66.450	.000
	THREE_ST	.429	.009	.278	47.865	.000
	BUNGLOW	-9.173E-02	.007	-.103	-14.095	.000
	TWO_STO	5.749E-02	.006	.076	9.933	.000
	SIDESPLT	9.813E-02	.012	.043	8.090	.000
6	(Constant)	11.915	.008		1465.104	.000
	DETACH	.267	.004	.338	66.881	.000
	THREE_ST	.471	.011	.306	44.638	.000
	BUNGLOW	-5.039E-02	.008	-.057	-5.934	.000
	TWO_STO	9.940E-02	.008	.131	12.417	.000
	SIDESPLT	.139	.013	.061	10.483	.000
	BACKSPLT	7.958E-02	.011	.052	7.572	.000
7	(Constant)	11.922	.008		1456.981	.000
	DETACH	.260	.004	.329	63.277	.000
	THREE_ST	.476	.011	.309	45.001	.000
	BUNGLOW	-5.097E-02	.008	-.057	-6.006	.000
	TWO_STO	.100	.008	.132	12.542	.000
	SIDESPLT	.139	.013	.061	10.497	.000
	BACKSPLT	7.686E-02	.011	.050	7.313	.000
	ATTCH	-6.863E-02	.010	-.035	-6.841	.000
8	(Constant)	11.951	.010		1232.741	.000
	DETACH	.226	.007	.285	30.441	.000
	THREE_ST	.484	.011	.314	45.368	.000
	BUNGLOW	-4.438E-02	.009	-.050	-5.182	.000
	TWO_STO	.105	.008	.139	13.084	.000
	SIDESPLT	.144	.013	.063	10.850	.000
	BACKSPLT	8.513E-02	.011	.055	8.024	.000
	ATTCH	-.103	.012	-.052	-8.769	.000
	SEMI	-4.456E-02	.008	-.051	-5.613	.000
9	(Constant)	11.978	.013		929.402	.000
	DETACH	.194	.013	.245	15.455	.000
	THREE_ST	.487	.011	.316	45.446	.000
	BUNGLOW	-3.931E-02	.009	-.044	-4.511	.000
	TWO_STO	.111	.008	.146	13.453	.000
	SIDESPLT	.150	.013	.066	11.158	.000
	BACKSPLT	9.080E-02	.011	.059	8.437	.000
	ATTCH	-.135	.016	-.068	-8.683	.000
	SEMI	-7.642E-02	.013	-.087	-5.912	.000
	LINK	-4.707E-02	.015	-.026	-3.123	.002

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.201[a]	.040	.040	.3697
2	.208[b]	.043	.043	.3692
3	.210[c]	.044	.044	.3691
4	.210[d]	.044	.044	.3690

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.040	1501.723	1	35676	.000
2	.003	112.590	1	35675	.000
3	.000	18.552	1	35674	.000
4	.000	7.732	1	35673	.005

a. Predictors: (Constant), BRICK

b. Predictors: (Constant), BRICK, STONE

c. Predictors: (Constant), BRICK, STONE, ALUMIN

d. Predictors: (Constant), BRICK, STONE, ALUMIN, BRK_FRNT

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.014	.004		2672.048	.000
	BRICK	.194	.005	.201	38.752	.000
2	(Constant)	12.007	.005		2651.372	.000
	BRICK	.200	.005	.208	39.800	.000
	STONE	.364	.034	.055	10.611	.000
3	(Constant)	12.020	.005		2224.886	.000
	BRICK	.187	.006	.194	32.151	.000
	STONE	.351	.034	.053	10.205	.000
	ALUMIN	-4.265E-02	.010	-.026	-4.307	.000
4	(Constant)	12.028	.006		1968.001	.000
	BRICK	.179	.006	.186	27.636	.000
	STONE	.343	.035	.052	9.941	.000
	ALUMIN	-5.060E-02	.010	-.031	-4.910	.000
	BRK_FRNT	-3.633E-02	.013	-.016	-2.781	.005

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.350[a]	.122	.122	.3536
2	.370[b]	.137	.137	.3506
3	.380[c]	.144	.144	.3492
4	.380[d]	.144	.144	.3491
5	.380[e]	.145	.144	.3491

Model Summary

	Change Statistics				
Model	R Square Change	F Change	df1	df2	Sig. F Change
1	.122	4980.308	1	35676	.000
2	.015	606.869	1	35675	.000
3	.007	292.031	1	35674	.000
4	.000	9.007	1	35673	.003
5	.000	8.485	1	35672	.004

a. Predictors: (Constant), GAR_DBLA

b. Predictors: (Constant), GAR_DBLA, GAR_DBLD

c. Predictors: (Constant), GAR_DBLA, GAR_DBLD, NO_GARAG

d. Predictors: (Constant), GAR_DBLA, GAR_DBLD, NO_GARAG, GAR_SINA

e. Predictors: (Constant), GAR_DBLA, GAR_DBLD, NO_GARAG, GAR_SINA, GAR_SIND

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	12.097	.002		5654.028	.000
	GAR_DBLA	.312	.004	.350	70.571	.000
2	(Constant)	12.085	.002		5547.194	.000
	GAR_DBLA	.324	.004	.364	73.484	.000
	GAR_DBLD	.236	.010	.122	24.635	.000
3	(Constant)	12.111	.003		4556.257	.000
	GAR_DBLA	.298	.005	.334	64.004	.000
	GAR_DBLD	.210	.010	.108	21.709	.000
	NO_GARAG	-7.863E-02	.005	-.089	-17.089	.000
4	(Constant)	12.121	.004		2959.169	.000
	GAR_DBLA	.288	.006	.324	51.504	.000
	GAR_DBLD	.201	.010	.104	19.745	.000
	NO_GARAG	-8.799E-02	.006	-.100	-15.833	.000
	GAR_SINA	-1.616E-02	.005	-.019	-3.001	.003
5	(Constant)	12.135	.006		1942.742	.000
	GAR_DBLA	.275	.007	.308	37.517	.000
	GAR_DBLD	.187	.011	.096	16.686	.000
	NO_GARAG	-.102	.007	-.115	-13.958	.000
	GAR_SINA	-2.989E-02	.007	-.036	-4.177	.000
	GAR_SIND	-2.410E-02	.008	-.020	-2.913	.004

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.370[a]	.137	.137	.3506
2	.462[b]	.213	.213	.3348
3	.474[c]	.225	.225	.3323

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.137	5665.612	1	35676	.000
2	.076	3449.972	1	35675	.000
3	.012	543.710	1	35674	.000

a. Predictors: (Constant), FIRE_NO

b. Predictors: (Constant), FIRE_NO, FIRE_MLT

c. Predictors: (Constant), FIRE_NO, FIRE_MLT, FIRE_OTH

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.292	.002		5003.663	.000
	FIRE_NO	-.282	.004	-.370	-75.270	.000
2	(Constant)	12.245	.002		4942.564	.000
	FIRE_NO	-.236	.004	-.309	-64.186	.000
	FIRE_MLT	.452	.008	.283	58.736	.000
3	(Constant)	12.112	.006		1958.510	.000
	FIRE_NO	-.103	.007	-.135	-15.303	.000
	FIRE_MLT	.585	.010	.365	61.417	.000
	FIRE_OTH	.157	.007	.206	23.318	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.250[a]	.063	.063	.3654
2	.305[b]	.093	.093	.3594
3	.329[c]	.108	.108	.3565
4	.332[d]	.110	.110	.3561
5	.332[e]	.111	.110	.3560
6	.333[f]	.111	.111	.3559
7	.334[g]	.111	.111	.3559
8	.335[h]	.112	.112	.3557

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.063	2384.496	1	35676	.000
2	.030	1198.450	1	35675	.000
3	.015	597.790	1	35674	.000
4	.002	77.070	1	35673	.000
5	.001	22.084	1	35672	.000
6	.000	17.643	1	35671	.000
7	.000	12.728	1	35670	.000
8	.001	33.199	1	35669	.000

a. Predictors: (Constant), AIR_CON

b. Predictors: (Constant), AIR_CON, H_WATGAS

c. Predictors: (Constant), AIR_CON, H_WATGAS, H_WATOIL

d. Predictors: (Constant), AIR_CON, H_WATGAS, H_WATOIL, H_AIRGAS

e. Predictors: (Constant), AIR_CON, H_WATGAS, H_WATOIL, H_AIRGAS, ELE_RAD

f. Predictors: (Constant), AIR_CON, H_WATGAS, H_WATOIL, H_AIRGAS, ELE_RAD, ELE_BASE

g. Predictors: (Constant), AIR_CON, H_WATGAS, H_WATOIL, H_AIRGAS, ELE_RAD, ELE_BASE, H_AIRELE

h. Predictors: (Constant), AIR_CON, H_WATGAS, H_WATOIL, H_AIRGAS, ELE_RAD, ELE_BASE, H_AIRELE, H_AIROIL

APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.115	.002		5395.270	.000
	AIR_CON	.216	.004	.250	48.831	.000
2	(Constant)	12.091	.002		5234.428	.000
	AIR_CON	.234	.004	.271	53.390	.000
	H_WATGAS	.253	.007	.176	34.619	.000
3	(Constant)	12.078	.002		5118.843	.000
	AIR_CON	.246	.004	.285	56.299	.000
	H_WATGAS	.266	.007	.185	36.587	.000
	H_WATOIL	.234	.010	.123	24.450	.000
4	(Constant)	12.113	.005		2587.884	.000
	AIR_CON	.250	.004	.290	56.969	.000
	H_WATGAS	.230	.008	.160	27.630	.000
	H_WATOIL	.198	.010	.104	19.093	.000
	H_AIRGAS	-4.519E-02	.005	-.054	-8.779	.000
5	(Constant)	12.111	.005		2573.328	.000
	AIR_CON	.251	.004	.290	57.029	.000
	H_WATGAS	.232	.008	.161	27.870	.000
	H_WATOIL	.200	.010	.106	19.303	.000
	H_AIRGAS	-4.289E-02	.005	-.051	-8.297	.000
	ELE_RAD	.204	.043	.024	4.699	.000
6	(Constant)	12.101	.005		2307.145	.000
	AIR_CON	.252	.004	.292	57.192	.000
	H_WATGAS	.242	.009	.168	27.991	.000
	H_WATOIL	.210	.011	.111	19.759	.000
	H_AIRGAS	-3.351E-02	.006	-.040	-5.950	.000
	ELE_RAD	.214	.043	.025	4.916	.000
	ELE_BASE	4.946E-02	.012	.023	4.200	.000
7	(Constant)	12.094	.006		2155.080	.000
	AIR_CON	.250	.004	.290	56.706	.000
	H_WATGAS	.249	.009	.173	28.071	.000
	H_WATOIL	.217	.011	.115	20.081	.000
	H_AIRGAS	-2.598E-02	.006	-.031	-4.320	.000
	ELE_RAD	.221	.044	.026	5.078	.000
	ELE_BASE	5.665E-02	.012	.026	4.743	.000
	H_AIRELE	5.340E-02	.015	.019	3.568	.000

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
8	(Constant)	12.026	.013		917.273	.000
	AIR_CON	.250	.004	.289	56.554	.000
	H_WATGAS	.318	.015	.221	21.441	.000
	H_WATOIL	.286	.016	.151	17.799	.000
	H_AIRGAS	4.251E-02	.013	.051	3.192	.001
	ELE_RAD	.289	.045	.033	6.417	.000
	ELE_BASE	.125	.017	.058	7.427	.000
	H_AIRELE	.122	.019	.044	6.381	.000
	H_AIROIL	8.338E-02	.014	.065	5.762	.000

a. Dependent Variable: LOG_PRIC

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.140[a]	.019	.019	.3737
2	.148[b]	.022	.022	.3733
3	.153[c]	.024	.023	.3730
4	.157[d]	.025	.024	.3728
5	.162[e]	.026	.026	.3725
6	.169[f]	.029	.029	.3720

Model Summary

Model	Change Statistics				
	R Square Change	F Change	df1	df2	Sig. F Change
1	.019	709.112	1	35676	.000
2	.002	88.535	1	35675	.000
3	.002	58.936	1	35674	.000
4	.001	39.268	1	35673	.000
5	.002	61.413	1	35672	.000
6	.002	89.621	1	35671	.000

a. Predictors: (Constant), D_CBDSQ

b. Predictors: (Constant), D_CBDSQ, BSMT_FIN

c. Predictors: (Constant), D_CBDSQ, BSMT_FIN, BSMT_UNF

d. Predictors: (Constant), D_CBDSQ, BSMT_FIN, BSMT_UNF, BSMT_APT

e. Predictors: (Constant), D_CBDSQ, BSMT_FIN, BSMT_UNF, BSMT_APT, BSMT_PRT

f. Predictors: (Constant), D_CBDSQ, BSMT_FIN, BSMT_UNF, BSMT_APT, BSMT_PRT, BSMT_OTH

APPENDIX-C: Group of Variables Regressed on Natural Log of Sale Price
Freehold 1987 Sales

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	12.220	.003		4512.673	.000
	D_CBDSQ	-1.327E-04	.000	-.140	-26.629	.000
2	(Constant)	12.203	.003		3774.014	.000
	D_CBDSQ	-1.316E-04	.000	-.138	-26.435	.000
	BSMT_FIN	3.753E-02	.004	.049	9.409	.000
3	(Constant)	12.185	.004		3034.483	.000
	D_CBDSQ	-1.358E-04	.000	-.143	-27.139	.000
	BSMT_FIN	5.736E-02	.005	.075	12.077	.000
	BSMT_UNF	4.053E-02	.005	.048	7.677	.000
4	(Constant)	12.171	.005		2674.753	.000
	D_CBDSQ	-1.334E-04	.000	-.140	-26.585	.000
	BSMT_FIN	6.992E-02	.005	.092	13.570	.000
	BSMT_UNF	5.290E-02	.006	.063	9.390	.000
	BSMT_APT	5.483E-02	.009	.036	6.266	.000
5	(Constant)	12.129	.007		1727.383	.000
	D_CBDSQ	-1.322E-04	.000	-.139	-26.349	.000
	BSMT_FIN	.111	.007	.146	15.087	.000
	BSMT_UNF	9.430E-02	.008	.112	12.216	.000
	BSMT_APT	9.650E-02	.010	.064	9.431	.000
	BSMT_PRT	6.747E-02	.009	.061	7.837	.000
6	(Constant)	12.064	.010		1227.009	.000
	D_CBDSQ	-1.307E-04	.000	-.138	-26.084	.000
	BSMT_FIN	.176	.010	.231	17.514	.000
	BSMT_UNF	.159	.010	.189	15.433	.000
	BSMT_APT	.161	.012	.107	13.116	.000
	BSMT_PRT	.132	.011	.120	12.034	.000
	BSMT_OTH	.128	.013	.069	9.467	.000

a. Dependent Variable: LOG_PRIC

APPENDIX D: '1987 Descriptive Analysis.'

Summarize

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
SLDPRICE * STYLE	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * EXTER_1	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * GARAGE	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * ROOMS	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * BEDS	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * NO_WASH	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * FIRE	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * FAM_ROOM	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * HEAT	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * CAC	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * PARK_CAP	33532	94.0%	2146	6.0%	35678	100.0%
SLDPRICE * BASEMENT	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * DRIVE	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * POOL	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * TYPE	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * BEACH	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * HWAY	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * SUBWAY	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * MALL	35678	100.0%	0	.0%	35678	100.0%
SLDPRICE * MUNICIPAL	35678	100.0%	0	.0%	35678	100.0%

SLDPRICE * STYLE

1987 Descriptive Analysis.

SLDPRICE

STYLE	N	% of Total N	Mean	Median	Minimum	Maximum
	235	.7%	235055.32	168000.00	8500	3300000
0	610	1.7%	247016.55	190000.00	5200	1855000
1	8386	23.5%	187162.04	174000.00	10700	3040000
2	19663	55.1%	209007.96	180000.00	1100	2300000
3	2287	6.4%	298952.15	247000.00	13500	2600000
4	2278	6.4%	192828.74	179900.00	15000	750000
5	1008	2.8%	231740.82	213250.00	82000	735000
7	1210	3.4%	188795.88	172000.00	16000	1000000
D	1	.0%	146000.00	146000.00	146000	146000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * EXTER_1

APPENDIX D: '1987 Descriptive Analysis.'

1987 Descriptive Analysis.

SLDPRICE

EXTER_1	N	% of Total N	Mean	Median	Minimum	Maximum
	693	1.9%	221872.26	165000.00	1100	3300000
A	1978	5.5%	168324.78	155000.00	10700	1115000
B	28915	81.0%	215591.04	186000.00	5200	3040000
C	67	.2%	207735.82	168500.00	45000	735000
F	1021	2.9%	168558.95	158000.00	39000	675000
L	251	.7%	139207.82	127000.00	69000	360000
O	1796	5.0%	177816.36	157250.00	15900	1000000
P	298	.8%	261219.63	190000.00	23000	1450000
S	118	.3%	288600.00	194000.00	98000	1500000
W	542	1.5%	184621.99	157000.00	15000	1125000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * GARAGE

1987 Descriptive Analysis.

SLDPRICE

GARAGE	N	% of Total N	Mean	Median	Minimum	Maximum
	1319	3.7%	196869.39	160000.00	8500	3300000
1	23	.1%	196811.96	199600.00	143500	268000
2	2	.0%	360000.00	360000.00	260000	460000
3	4	.0%	271625.00	273750.00	144000	395000
5	4	.0%	376750.00	349500.00	168000	640000
A	11	.0%	163809.09	158000.00	128000	219000
B	3	.0%	235633.33	195900.00	181000	330000
C	836	2.3%	191696.06	174450.00	98000	1950000
D	8370	23.5%	261781.15	232500.00	19570	2600000
E	1	.0%	950000.00	950000.00	950000	950000
G	16	.0%	193718.75	180450.00	135000	269400
I	1	.0%	249000.00	249000.00	249000	249000
L	10	.0%	201400.00	196250.00	83000	265000
M	20	.1%	196555.00	157000.00	118900	496000
N	8643	24.2%	181493.58	160000.00	1100	1800000
O	811	2.3%	284459.92	203000.00	19200	1900000
P	52	.1%	209380.58	191000.00	19700	715000
R	4	.0%	201000.00	147000.00	125000	385000
S	9990	28.0%	188420.87	172000.00	15000	1500000
T	5	.0%	581800.00	355000.00	155000	1350000
V	2	.0%	145500.00	145500.00	138000	153000
X	4142	11.6%	191703.42	173950.00	15000	1125000
Y	1409	3.9%	248649.61	206000.00	17000	1855000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * ROOMS

APPENDIX D: '1987 Descriptive Analysis.'

1987 Descriptive Analysis.

SLDPRICE

ROOMS	N	% of Total N	Mean	Median	Minimum	Maximum
0	1365	3.8%	327972.65	260000.00	1100	3300000
1	17	.0%	126823.53	113000.00	5200	315000
2	14	.0%	299160.71	190000.00	69000	1150000
3	130	.4%	136838.19	115000.00	16000	735000
4	881	2.5%	136821.55	130000.00	10700	405000
5	3785	10.6%	160684.55	155000.00	15000	940000
6	13401	37.6%	178310.71	167000.00	13000	1500000
7	7044	19.7%	199904.74	181000.00	15000	1450000
8	6063	17.0%	243006.94	224700.00	19570	2300000
9	2057	5.8%	304713.85	275000.00	20500	1450000
10	431	1.2%	372621.40	300000.00	41000	1900000
11	158	.4%	422274.70	309000.00	126000	1525000
12	115	.3%	426702.61	335000.00	150000	2600000
13	35	.1%	530107.00	360000.00	150000	2075000
14	50	.1%	364587.00	303500.00	224000	1595000
15	29	.1%	444875.86	342500.00	220000	1200000
16	21	.1%	368952.38	365000.00	277500	525000
17	26	.1%	413953.85	339000.00	245000	1205000
18	7	.0%	468642.86	475000.00	167000	740000
19	6	.0%	765358.33	805000.00	324150	1200000
20	13	.0%	473115.38	449000.00	278500	759000
21	1	.0%	615000.00	615000.00	615000	615000
22	4	.0%	502500.00	430000.00	400000	750000
23	6	.0%	642166.67	520000.00	493000	995000
26	2	.0%	467500.00	467500.00	359000	576000
28	1	.0%	400000.00	400000.00	400000	400000
29	2	.0%	265000.00	265000.00	150000	380000
30	2	.0%	607500.00	607500.00	400000	815000
33	1	.0%	510000.00	510000.00	510000	510000
38	2	.0%	460000.00	460000.00	380000	540000
44	2	.0%	618500.00	618500.00	595000	642000
52	1	.0%	1100000.00	1100000.00	1100000	1100000
53	1	.0%	680000.00	680000.00	680000	680000
61	2	.0%	147750.00	147750.00	137500	158000
66	1	.0%	170000.00	170000.00	170000	170000
67	1	.0%	233000.00	233000.00	233000	233000
82	1	.0%	190000.00	190000.00	190000	190000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * BEDS

1987 Descriptive Analysis.

SLDPRICE

BEDS	N	% of Total N	Mean	Median	Minimum	Maximum
0	745	2.1%	312053.11	192000.00	1100	3300000
1	267	.7%	139910.67	121000.00	45000	940000
2	4183	11.7%	162120.23	152000.00	10700	912000
3	19248	53.9%	187033.57	172500.00	13000	1450000
4	9309	26.1%	242378.18	220000.00	19570	2300000
5	1305	3.7%	335864.14	267500.00	19000	1900000
6	379	1.1%	357780.50	280000.00	106000	2075000
7	123	.3%	367799.99	300000.00	127000	2600000
8	87	.2%	409050.57	340000.00	175000	1250000
9	32	.1%	420515.62	400000.00	167000	795000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

APPENDIX D: '1987 Descriptive Analysis.'

SLDPRICE * NO_WASH

1987 Descriptive Analysis.

SLDPRICE

NO_WASH	N	% of Total N	Mean	Median	Minimum	Maximum
0	519	1.5%	268716.26	164000.00	8500	3300000
1	6486	18.2%	162158.36	153850.00	1100	920000
2	16486	46.2%	185168.93	171150.00	5200	1260000
3	9741	27.3%	236730.53	215000.00	10000	1575000
4	1909	5.4%	338564.99	293000.00	19200	2300000
5	262	.7%	526435.28	440000.00	111000	2600000
6	136	.4%	401819.49	341000.00	36500	2075000
7	60	.2%	519699.17	398000.00	115000	1900000
8	33	.1%	581154.55	518000.00	158000	3040000
9	66	.2%	578574.24	477500.00	137000	1950000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * FIRE

1987 Descriptive Analysis.

SLDPRICE

FIRE	N	% of Total N	Mean	Median	Minimum	Maximum
	2248	6.3%	210819.53	183000.00	1100	3300000
M	2108	5.9%	366953.91	311250.00	19200	2300000
N	15305	42.9%	172929.72	160000.00	5200	3040000
O	15378	43.1%	225463.09	203500.00	15000	2600000
S	641	1.8%	174290.69	167000.00	62000	799000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * FAM_ROOM

1987 Descriptive Analysis.

SLDPRICE

FAM_ROOM	N	% of Total N	Mean	Median	Minimum	Maximum
	26707	74.9%	216109.98	186000.00	1100	3300000
N	8969	25.1%	189603.16	169000.00	5200	1800000
~	2	.0%	210250.00	210250.00	178500	242000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * HEAT

APPENDIX D: '1987 Descriptive Analysis.'

1987 Descriptive Analysis.

SLDPRICE

HEAT	N	% of Total N	Mean	Median	Minimum	Maximum
	497	1.4%	229786.12	162000.00	10000	3300000
$	3	.0%	163500.00	164000.00	151500	175000
(	1	.0%	250000.00	250000.00	250000	250000
•	1	.0%	305000.00	305000.00	305000	305000
0	226	.6%	233736.25	179500.00	54000	1500000
1	1475	4.1%	248898.37	215000.00	31500	2600000
2	3364	9.4%	205169.46	179975.00	5200	2300000
3	2651	7.4%	266296.93	220000.00	19700	2075000
4	25586	71.7%	200039.99	178500.00	1100	3040000
5	1136	3.2%	216521.94	184000.00	15000	1800000
6	661	1.9%	238815.39	190000.00	17400	1950000
7	68	.2%	256122.06	239500.00	68000	750000
;	1	.0%	175000.00	175000.00	175000	175000
>	1	.0%	164000.00	164000.00	164000	164000
N	1	.0%	173900.00	173900.00	173900	173900
P	2	.0%	183725.00	183725.00	180000	187450
Q	1	.0%	377000.00	377000.00	377000	377000
R	1	.0%	154000.00	154000.00	154000	154000
S	1	.0%	184000.00	184000.00	184000	184000
U	1	.0%	218000.00	218000.00	218000	218000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * CAC

1987 Descriptive Analysis.

SLDPRICE

CAC	N	% of Total N	Mean	Median	Minimum	Maximum
	2076	5.8%	211344.44	177000.00	8500	3300000
N	24409	68.4%	194846.57	173900.00	5200	3040000
Y	9193	25.8%	247781.98	210000.00	1100	2300000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * PARK_CAP

1987 Descriptive Analysis.

SLDPRICE

PARK_CAP	N	% of Total N	Mean	Median	Minimum	Maximum
0	8669	25.9%	181539.02	160000.00	1100	1800000
1	14973	44.7%	189566.02	173000.00	15000	1950000
2	9855	29.4%	259448.61	229500.00	17000	2600000
3	25	.1%	273604.00	165000.00	118900	1350000
4	6	.0%	301083.33	288750.00	144000	460000
5	4	.0%	376750.00	349500.00	168000	640000
Total	33532	100.0%	208134.12	181000.00	1100	2600000

SLDPRICE * BASEMENT

APPENDIX D: '1987 Descriptive Analysis.'

1987 Descriptive Analysis.

SLDPRICE

BASEMENT	N	% of Total N	Mean	Median	Minimum	Maximum
	1076	3.0%	215512.32	165500.00	8500	3300000
A	2374	6.7%	210276.47	184000.00	36500	1575000
C	180	.5%	151958.89	125000.00	62000	995000
D	247	.7%	195968.79	165000.00	45000	1100000
F	15464	43.3%	213293.93	182000.00	13000	2300000
O	1543	4.3%	213858.53	175000.00	12000	1950000
P	4867	13.6%	205579.75	175000.00	10700	2075000
U	9927	27.8%	205183.68	185000.00	1100	2600000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * DRIVE

1987 Descriptive Analysis.

SLDPRICE

DRIVE	N	% of Total N	Mean	Median	Minimum	Maximum
	579	1.6%	227181.70	165000.00	8500	3300000
F	256	.7%	209172.80	168750.00	10700	1350000
L	3006	8.4%	199057.36	177850.00	1100	1375000
M	2992	8.4%	195974.14	170950.00	5200	1800000
N	2032	5.7%	175410.59	152000.00	12000	1575000
P	26399	74.0%	214336.04	185000.00	13000	3040000
R	414	1.2%	212854.04	174250.00	60000	1100000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * POOL

1987 Descriptive Analysis.

SLDPRICE

POOL	N	% of Total N	Mean	Median	Minimum	Maximum
	1710	4.8%	215216.60	179900.00	1100	3300000
A	369	1.0%	182305.70	169900.00	15000	920000
H	37	.1%	502750.27	470000.00	78000	1423000
I	1207	3.4%	283477.99	235000.00	41000	2300000
N	32355	90.7%	206353.57	180000.00	5200	3040000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * TYPE

APPENDIX D: '1987 Descriptive Analysis.'

1987 Descriptive Analysis.

SLDPRICE

TYPE	N	% of Total N	Mean	Median	Minimum	Maximum
A	1335	3.7%	181245.71	152000.00	19000	1000000
B	102	.3%	159774.02	73900.00	5200	1940000
C	5	.0%	139020.00	127300.00	85000	256800
D	23128	64.8%	225210.34	195000.00	1100	3040000
E	28	.1%	88473.21	81000.00	45000	239000
F	6	.0%	185500.00	188500.00	104000	270000
G	5	.0%	117200.00	127000.00	70000	154000
L	1653	4.6%	171675.47	168000.00	15000	799000
O	410	1.1%	331814.33	272000.00	12000	1950000
R	1	.0%	208000.00	208000.00	208000	208000
S	8732	24.5%	174524.92	161500.00	12000	1575000
T	68	.2%	124710.29	119750.00	28500	213000
V	205	.6%	235917.93	137700.00	10000	3300000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * BEACH

1987 Descriptive Analysis.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	29429	82.5%	214215.91	185000.00	1100	3300000
1	6249	17.5%	186963.62	165100.00	5200	1950000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * HWAY

1987 Descriptive Analysis.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	19335	54.2%	210038.48	180000.00	5200	2900000
1	16343	45.8%	208745.43	181000.00	1100	3300000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * SUBWAY

1987 Descriptive Analysis.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	25661	71.9%	202530.22	179900.00	5200	3300000
1	10017	28.1%	227163.10	187500.00	1100	3040000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * MALL

APPENDIX D: '1987 Descriptive Analysis.'

1987 Descriptive Analysis.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	18470	51.8%	201216.79	178000.00	5200	3300000
1	17208	48.2%	218279.08	185000.00	1100	3040000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

SLDPRICE * MUNICIPAL

1987 Descriptive Analysis.

SLDPRICE

MUNICIPAL	N	% of Total N	Mean	Median	Minimum	Maximum
AJAX	1020	2.9%	151323.24	145500.00	54000	550000
AURORA	71	.2%	212645.21	190000.00	128000	770000
BRAMPTON	1045	2.9%	166852.10	156500.00	15000	835000
BROCK	1	.0%	98000.00	98000.00	98000	98000
BURLINGTON	4	.0%	173700.00	155450.00	149000	234900
CALEDON	33	.1%	218213.64	215000.00	85650	425000
CALEDON E	9	.0%	278611.11	260000.00	145000	575000
E GWILL	6	.0%	158550.00	160000.00	119900	194900
EAST YORK	1238	3.5%	180289.51	163000.00	70000	1180000
ETOBICOKE	2324	6.5%	216594.82	192000.00	10700	1000000
GEORGINA	7	.0%	72271.43	85000.00	18000	127000
HALTON	9	.0%	202100.00	163000.00	108900	417000
KING	19	.1%	256168.42	232900.00	105000	485000
MARKHAM	2178	6.1%	236905.46	215000.00	14000	1595000
MILTON	6	.0%	162733.33	168700.00	129500	189000
MISS	5211	14.6%	191369.76	171000.00	12000	3300000
NEWCASTLE	2	.0%	204500.00	204500.00	179000	230000
NEWMARKET	47	.1%	180315.96	170000.00	125500	395000
NORTH YORK	3540	9.9%	268004.81	224000.00	8500	2300000
OAKVILLE	84	.2%	225076.19	182500.00	87500	1350000
OSHAWA	64	.2%	126998.44	117250.00	39000	320000
PICKERING	979	2.7%	173298.65	162000.00	63000	717000
R HILL	821	2.3%	229499.06	197500.00	32000	2900000
SCARBORO	5839	16.4%	183963.80	174000.00	5200	3040000
TORONTO	7797	21.9%	231492.52	190000.00	1100	2600000
UXBRIDGE	12	.0%	158416.67	134000.00	10000	510000
VAUGHAN	1076	3.0%	237079.22	216650.00	32500	1500000
WHIT/STOUF	17	.0%	228264.71	227500.00	62000	478000
WHITBY	144	.4%	165846.18	154500.00	69000	515000
YORK	2075	5.8%	174965.89	159000.00	17000	1325000
Total	35678	100.0%	209446.17	180500.00	1100	3300000

APPENDIX E- 1988 Descriptive Analysis

Summarize

SLDPRICE * STYLE

Freehold 1988 Data Summaries.

SLDPRICE

STYLE	N	% of Total N	Mean	Median	Minimum	Maximum
	368	.9%	313703.0055	185000.0000	5500.00	2898000.00
0	596	1.4%	341014.5956	240000.0000	11000.00	3150000.00
1	9907	23.4%	228630.7940	212500.0000	35000.00	3785000.00
2	23769	56.1%	256216.0314	222000.0000	16700.00	5400000.00
3	2339	5.5%	387732.1171	310000.0000	25000.00	3900000.00
4	2737	6.5%	227026.9795	213000.0000	60000.00	950000.00
5	1251	3.0%	277907.1583	251000.0000	128500.00	1275000.00
6	21	.0%	392871.4286	329000.0000	143300.00	905000.00
7	1386	3.3%	239356.4113	218000.0000	87000.00	1380000.00
9	1	.0%	143000.0000	143000.0000	143000.00	143000.00
~	19	.0%	207336.8421	209000.0000	156500.00	295000.00
Total	42392	100.0%	258961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * EXTER_1

Freehold 1988 Data Summaries.

SLDPRICE

EXTER_1	N	% of Total N	Mean	Median	Minimum	Maximum
	410	1.0%	304043.2146	195000.0000	5500.00	2898000.00
A	2794	6.6%	200548.4059	182000.0000	32000.00	1500000.00
B	36174	85.3%	261243.5834	225500.0000	13500.00	4275000.00
C	149	.4%	269349.7987	206000.0000	37000.00	1860000.00
F	1082	2.6%	213352.0333	196500.0000	35000.00	1100000.00
G	1	.0%	159900.0000	159900.0000	159900.00	159900.00
L	243	.6%	176311.0208	160000.0000	16700.00	580000.00
O	438	1.0%	257057.4772	185500.0000	11000.00	5400000.00
P	542	1.3%	315641.3856	229900.0000	89900.00	3000000.00
S	134	.5%	348614.1237	271500.0000	109000.00	1550000.00
W	359	.8%	254494.8078	209000.0000	35000.00	968000.00
~	6	.0%	210416.6667	189750.0000	175500.00	300000.00
Total	42392	100.0%	258961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * GARAGE

APPENDIX E- 1988 Descriptive Analysis

Freehold 1988 Data Summaries.

SLDPRICE

GARAGE	N	% of Total N	Mean	Median	Minimum	Maximum
	580	1.4%	299594.6810	200500.0000	5500.00	2898000.00
A	1	.0%	170000.0000	170000.0000	170000.00	170000.00
C	1095	2.6%	228515.4128	210000.0000	60000.00	2100000.00
D	11090	26.2%	303856.4004	268000.0000	21500.00	3785000.00
H	20	.0%	260125.0000	265500.0000	187000.00	345000.00
J	12	.0%	248041.6667	225950.0000	167000.00	455000.00
K	26	.1%	236859.6154	230000.0000	165000.00	419000.00
L	18	.0%	307511.1111	279000.0000	182000.00	465500.00
M	6	.0%	444458.3333	481125.0000	220000.00	575000.00
N	10117	23.9%	226979.3921	195000.0000	11000.00	3200000.00
O	1196	2.8%	367554.2216	240000.0000	29000.00	4275000.00
P	7	.0%	470285.7143	243000.0000	190000.00	1803000.00
R	2	.0%	253200.0000	253200.0000	222500.00	283900.00
S	11834	27.9%	226123.2276	205500.0000	19000.00	3000000.00
X	4690	11.1%	241532.1328	215250.0000	17000.00	5400000.00
Y	1680	4.0%	311469.1792	255000.0000	38000.00	2178000.00
Z	3	.0%	380000.0000	365000.0000	250000.00	525000.00
~	15	.0%	251926.6667	230000.0000	137000.00	569000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * ROOMS

APPENDIX E- 1988 Descriptive Analysis

Freehold 1988 Data Summaries.

SLDPRICE

ROOMS	N	% of Total N	Mean	Median	Minimum	Maximum
0	746	1.8%	388565.7453	220000.0000	5500.00	3900000.00
1	20	.0%	210895.0000	164000.0000	13900.00	978000.00
2	19	.0%	164221.0526	115000.0000	11000.00	740000.00
3	119	.3%	164394.1176	153800.0000	25000.00	425000.00
4	971	2.3%	173115.3048	161000.0000	42000.00	1100000.00
5	4101	9.7%	202768.9005	190000.0000	16700.00	1450000.00
6	15489	36.5%	218805.6439	205000.0000	19000.00	5400000.00
7	8586	20.3%	240744.7430	219000.0000	21500.00	2120000.00
8	7641	18.0%	285329.8313	260000.0000	25000.00	2300000.00
9	2650	6.3%	363954.8834	318000.0000	38000.00	4275000.00
10	1078	2.5%	439913.1642	360000.0000	75000.00	2850000.00
11	343	.8%	480122.8688	380000.0000	170000.00	2495000.00
12	188	.4%	529892.0213	402500.0000	122000.00	3000000.00
13	85	.2%	535190.9412	385000.0000	235000.00	2000000.00
14	120	.3%	461587.7333	370000.0000	228000.00	1950000.00
15	45	.1%	446097.7778	391000.0000	170000.00	1075000.00
16	31	.1%	457370.9677	425000.0000	248000.00	884000.00
17	33	.1%	555703.0303	440000.0000	265000.00	2200000.00
18	21	.0%	616514.2857	505000.0000	75000.00	1500000.00
19	4	.0%	636000.0000	612500.0000	535000.00	784000.00
20	19	.0%	591474.0000	545000.0000	100006.00	1000000.00
21	4	.0%	552500.0000	542500.0000	475000.00	650000.00
22	12	.0%	524625.0000	453500.0000	172500.00	1150000.00
23	9	.0%	604666.6667	585000.0000	465000.00	826000.00
24	7	.0%	753400.0000	1020000.0000	233800.00	1175000.00
25	1	.0%	625000.0000	625000.0000	625000.00	625000.00
26	5	.0%	616000.0000	615000.0000	485000.00	875000.00
27	1	.0%	436000.0000	436000.0000	436000.00	436000.00
28	3	.0%	540000.0000	535000.0000	490000.00	595000.00
29	5	.0%	667000.0000	580000.0000	390000.00	1200000.00
30	11	.0%	759363.6364	685000.0000	420000.00	1775000.00
32	1	.0%	475000.0000	475000.0000	475000.00	475000.00
33	2	.0%	774500.0000	774500.0000	724000.00	825000.00
35	3	.0%	700333.3333	700000.0000	650000.00	751000.00
37	1	.0%	760000.0000	760000.0000	760000.00	760000.00
38	2	.0%	617500.0000	617500.0000	570000.00	665000.00
39	1	.0%	800000.0000	800000.0000	800000.00	800000.00
40	3	.0%	1016666.6667	670000.0000	650000.00	1730000.00
43	1	.0%	1150000.0000	1150000.0000	1150000.00	1150000.00
44	1	.0%	655000.0000	655000.0000	655000.00	655000.00
58	1	.0%	1345000.0000	1345000.0000	1345000.00	1345000.00
61	1	.0%	3200000.0000	3200000.0000	3200000.00	3200000.00
68	1	.0%	1380000.0000	1380000.0000	1380000.00	1380000.00
69	1	.0%	1400000.0000	1400000.0000	1400000.00	1400000.00
74	1	.0%	1050000.0000	1050000.0000	1050000.00	1050000.00
78	1	.0%	171000.0000	171000.0000	171000.00	171000.00
88	1	.0%	980000.0000	980000.0000	980000.00	980000.00
90	1	.0%	1650000.0000	1650000.0000	1650000.00	1650000.00
95	2	.0%	1072000.0000	1072000.0000	984000.00	1160000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * BEDS

APPENDIX E- 1988 Descriptive Analysis

Freehold 1988 Data Summaries.

SLDPRICE

BEDS	N	% of Total N	Mean	Median	Minimum	Maximum
0	859	2.0%	410430.9616	250000.0000	5500.00	3900000.00
1	257	.6%	174977.6770	157500.0000	35000.00	1450000.00
2	4438	10.5%	207881.7681	188000.0000	16700.00	3785000.00
3	22737	53.6%	227523.9206	210000.0000	19000.00	5400000.00
4	12083	28.5%	289536.1288	258900.0000	25000.00	4275000.00
5	1430	3.4%	432376.6968	335000.0000	75000.00	2850000.00
6	381	.9%	456569.5696	355000.0000	100008.00	2701000.00
7	97	.2%	540936.0515	399000.0000	183000.00	3000000.00
8	93	.2%	451388.1720	400000.0000	170000.00	1255000.00
9	37	.1%	552135.1351	485000.0000	210000.00	1345000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * NO_WASH

Freehold 1988 Data Summaries.

SLDPRICE

NO_WASH	N	% of Total N	Mean	Median	Minimum	Maximum
0	646	1.5%	391418.5542	225000.0000	5500.00	3900000.00
1	6524	15.4%	205223.2124	187000.0000	11000.00	5400000.00
2	19239	45.4%	224962.2981	209000.0000	17000.00	3200000.00
3	12769	30.1%	275164.8866	248000.0000	15000.00	4275000.00
4	2628	6.2%	399039.5578	344450.0000	29000.00	2850000.00
5	372	.9%	660010.0591	577000.0000	75000.00	2495000.00
6	135	.3%	727425.1852	575000.0000	164000.00	3000000.00
7	39	.1%	810606.5641	670000.0000	100008.00	2850000.00
8	25	.1%	939840.0000	750000.0000	170000.00	2200000.00
9	15	.0%	816533.3333	760000.0000	135000.00	1500000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * FIRE

Freehold 1988 Data Summaries.

SLDPRICE

FIRE	N	% of Total N	Mean	Median	Minimum	Maximum
	832	2.0%	271838.0589	200950.0000	5500.00	2898000.00
M	2390	5.6%	458890.5770	380000.0000	140000.00	3900000.00
N	16834	39.7%	212815.5066	193850.0000	11000.00	5400000.00
O	20391	48.1%	269518.0439	240000.0000	19000.00	4275000.00
R	13	.0%	248615.3846	236000.0000	167000.00	415000.00
S	950	2.2%	209706.7747	200000.0000	25000.00	1272000.00
Y	930	2.2%	294673.7419	268950.0000	26500.00	1550000.00
~	52	.1%	296701.9231	272950.0000	152000.00	890000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * FAM_ROOM

APPENDIX E- 1988 Descriptive Analysis

Freehold 1988 Data Summaries.

SLDPRICE

FAM_ROOM	N	% of Total N	Mean	Median	Minimum	Maximum
	23741	56.0%	272977.3551	233500.0000	5500.00	4275000.00
A	691	1.6%	329771.5311	285000.0000	26500.00	1803000.00
N	17506	41.3%	230904.4319	204000.0000	11000.00	5400000.00
~	454	1.1%	313401.8282	263500.0000	146500.00	1375000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * HEAT

Freehold 1988 Data Summaries.

SLDPRICE

HEAT	N	% of Total N	Mean	Median	Minimum	Maximum
	568	1.3%	296837.7430	203000.0000	5500.00	2898000.00
$	1	.0%	312000.0000	312000.0000	312000.00	312000.00
0	310	.7%	319334.3581	216250.0000	13900.00	3150000.00
1	1442	3.4%	318505.2739	275000.0000	81500.00	2701000.00
2	3592	8.5%	255473.2294	220250.0000	13500.00	5400000.00
3	2840	6.7%	340290.2067	275000.0000	20000.00	3900000.00
4	31535	74.4%	244630.3137	218000.0000	12500.00	4275000.00
5	1225	2.9%	261190.7176	225000.0000	11000.00	3200000.00
6	785	1.9%	278482.9783	223500.0000	30000.00	2850000.00
7	79	.2%	303611.3924	285000.0000	85000.00	1365000.00
8	1	.0%	143900.0000	143900.0000	143900.00	143900.00
F	1	.0%	167000.0000	167000.0000	167000.00	167000.00
J	1	.0%	202500.0000	202500.0000	202500.00	202500.00
R	1	.0%	161000.0000	161000.0000	161000.00	161000.00
~	11	.0%	278763.6364	247500.0000	146500.00	564200.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * CAC

Freehold 1988 Data Summaries.

SLDPRICE

CAC	N	% of Total N	Mean	Median	Minimum	Maximum
	2405	5.7%	263979.0075	215000.0000	5500.00	3150000.00
N	26857	63.4%	238180.4945	212000.0000	12500.00	5400000.00
Y	13101	30.9%	294107.9901	245000.0000	13500.00	4275000.00
~	29	.1%	287348.2414	259500.0000	163000.00	610000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * PARK_CAP

Freehold 1988 Data Summaries.

SLDPRICE

PARK_CAP	N	% of Total N	Mean	Median	Minimum	Maximum
0	10132	24.9%	227016.3255	195000.0000	11000.00	3200000.00
1	17679	43.5%	230431.3652	209500.0000	17000.00	5400000.00
2	12796	31.5%	304941.6146	267000.0000	21500.00	3785000.00
3	9	.0%	422972.2222	465000.0000	220000.00	575000.00
Total	40616	100.0%	253096.4439	221500.0000	11000.00	5400000.00

SLDPRICE * BASEMENT

APPENDIX E- 1988 Descriptive Analysis

Freehold 1988 Data Summaries.

SLDPRICE

BASEMENT	N	% of Total N	Mean	Median	Minimum	Maximum
	669	1.6%	308411.8206	215000.0000	5500.00	2898000.00
A	3807	9.0%	247822.9659	222000.0000	17500.00	1500000.00
C	225	.5%	192475.6667	172000.0000	85000.00	850000.00
D	287	.7%	246286.0627	205000.0000	94000.00	1775000.00
F	17718	41.8%	260580.2313	222000.0000	15000.00	3785000.00
N	30	.1%	243443.3333	178450.0000	50000.00	1450000.00
O	2437	5.7%	261819.6623	210000.0000	11000.00	3150000.00
P	5636	13.3%	251198.8463	218500.0000	16700.00	2300000.00
U	11569	27.3%	254794.2099	226500.0000	13500.00	5400000.00
~	14	.0%	253928.5714	205500.0000	159000.00	475000.00
Total	42392	100.0%	258961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * DRIVE

Freehold 1988 Data Summaries.

SLDPRICE

DRIVE	N	% of Total N	Mean	Median	Minimum	Maximum
	423	1.0%	303370.6572	190000.0000	5500.00	2350000.00
?	12	.0%	252500.0000	223000.0000	162000.00	472500.00
F	393	.9%	289174.1603	209000.0000	11000.00	2300000.00
L	3013	7.1%	251353.1879	227000.0000	13200.00	2100000.00
M	3294	7.8%	244898.7893	213500.0000	16000.00	1400000.00
N	2054	4.8%	230248.3505	194000.0000	13900.00	3150000.00
O	9	.0%	361111.1111	350000.0000	172500.00	885000.00
P	32746	77.2%	259068.5856	224000.0000	19000.00	5400000.00
R	447	1.1%	278582.5369	229000.0000	17000.00	1701000.00
~	1	.0%	172600.0000	172600.0000	172600.00	172600.00
Total	42392	100.0%	258961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * POOL

Freehold 1988 Data Summaries.

SLDPRICE

POOL	N	% of Total N	Mean	Median	Minimum	Maximum
	1626	3.8%	270404.5172	217000.0000	5500.00	2898000.00
?	21	.0%	247752.3810	230000.0000	150000.00	415000.00
A	486	1.1%	217845.4012	205000.0000	105000.00	1235000.00
H	41	.1%	513129.2683	450000.0000	85000.00	1400000.00
I	1778	4.2%	329713.2379	265000.0000	88000.00	2300000.00
N	38438	90.7%	253254.4483	220000.0000	11000.00	5400000.00
~	2	.0%	254300.0000	254300.0000	172600.00	336000.00
Total	42392	100.0%	258961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * TYPE

APPENDIX E- 1988 Descriptive Analysis

Freehold 1988 Data Summaries.

SLDPRICE

TYPE	N	% of Total N	Mean	Median	Minimum	Maximum
0	1	.0%	215000.0000	215000.0000	215000.00	215000.00
A	1466	3.5%	225872.2531	185000.0000	75000.00	3900000.00
B	155	.4%	160607.1355	66000.0000	5500.00	2100000.00
C	2	.0%	215500.0000	215500.0000	146000.00	285000.00
D	27987	66.0%	272913.1817	236000.0000	16700.00	5400000.00
F	6	.0%	501666.6667	511000.0000	193000.00	825000.00
G	3	.0%	139666.6667	109000.0000	45000.00	265000.00
L	2192	5.2%	204345.8750	202000.0000	118000.00	433000.00
M	5	.0%	343860.0000	318800.0000	218000.00	555000.00
O	685	1.6%	453897.8555	351000.0000	13350.00	2850000.00
S	9644	22.7%	212354.8225	194500.0000	19000.00	1500000.00
T	2	.0%	154500.0000	154500.0000	149000.00	160000.00
V	236	.6%	356760.9661	198500.0000	53000.00	3150000.00
~	8	.0%	248237.5000	220800.0000	143300.00	475000.00
Total	42392	100.0%	258961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * KITCHEN

Freehold 1988 Data Summaries.

SLDPRICE

KITCHEN	N	% of Total N	Mean	Median	Minimum	Maximum
0	3091	7.3%	294108.8528	225000.0000	5500.00	3900000.00
1	31272	73.8%	251911.9068	219900.0000	13500.00	5400000.00
2	6624	15.6%	247014.2148	222950.0000	29000.00	2701000.00
3	1088	2.6%	300772.0689	271750.0000	115000.00	1375000.00
4	186	.4%	385548.1183	338700.0000	75000.00	1500000.00
5	54	.1%	473707.9259	477000.0000	166000.00	800000.00
6	55	.1%	552634.6545	515000.0000	100006.00	1175000.00
7	9	.0%	514555.5556	460000.0000	270000.00	775000.00
8	10	.0%	779500.0000	687000.0000	330000.00	1850000.00
9	3	.0%	890000.0000	710000.0000	615000.00	1345000.00
Total	42392	100.0%	258961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * BEACH

Freehold 1988 Data Summaries.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	35533	83.8%	261509.0852	225000.0000	5500.00	5400000.00
1	6859	16.2%	233404.6666	206000.0000	13200.00	2350000.00
Total	42392	100.0%	258961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * HWAY

Freehold 1988 Data Summaries.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	22630	53.4%	259870.9723	222500.0000	5500.00	5400000.00
1	19762	46.6%	253630.4437	221000.0000	11000.00	4275000.00
Total	42392	100.0%	258961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * SUBWAY

APPENDIX E- 1988 Descriptive Analysis

SLDPRICE * SUBWAY

Freehold 1988 Data Summaries.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	31749	74.9%	244831.0807	217500.0000	11000.00	5400000.00
1	10643	25.1%	292850.5168	239101.0000	5500.00	3200000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * MALL

Freehold 1988 Data Summaries.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	21874	51.6%	249193.7365	218000.0000	11000.00	5400000.00
1	20518	48.4%	265243.2566	226000.0000	5500.00	3200000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * BEACH_1

Freehold 1988 Data Summaries.

SLDPRICE

BEACH_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	39535	93.3%	258410.6616	223000.0000	5500.00	5400000.00
1	2857	6.7%	236912.6447	205000.0000	13350.00	1900000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * HWAY_1

Freehold 1988 Data Summaries.

SLDPRICE

HWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	33362	78.7%	257211.9595	221000.0000	5500.00	5400000.00
1	9030	21.3%	256037.6011	224000.0000	12500.00	4275000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * SWAY_1

Freehold 1988 Data Summaries.

SLDPRICE

SWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	35081	82.8%	248138.6551	219800.0000	11000.00	5400000.00
1	7311	17.2%	299296.6968	240000.0000	5500.00	3200000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

SLDPRICE * MALL_25

APPENDIX E- 1988 Descriptive Analysis

Freehold 1988 Data Summaries.

SLDPRICE

MALL_25	N	% of Total N	Mean	Median	Minimum	Maximum
0	37696	88.9%	257954.4156	221500.0000	5500.00	5400000.00
1	4696	11.1%	248993.8846	224950.0000	12500.00	2178000.00
Total	42392	100.0%	256961.8072	222000.0000	5500.00	5400000.00

APPENDIX F-1989 Descriptive Analysis

Summarize

SLDPRICE * STYLE

1989 Descriptive Analysis.

SLDPRICE

STYLE	N	% of Total N	Mean	Median	Minimum	Maximum
	183	.6%	399046.48	300000.00	4000	3845000
0	336	1.0%	363871.80	259500.00	10000	5385000
1	7501	23.4%	263291.75	239900.00	5000	2600000
2	18104	56.5%	305261.34	260000.00	13500	3500000
3	1598	5.0%	450190.74	352750.00	147000	4100000
4	1970	6.1%	266815.22	243000.00	92000	1795000
5	878	2.7%	318776.04	282000.00	162900	1260000
6	313	1.0%	330673.85	254000.00	138000	2500000
7	1061	3.3%	282748.96	243000.00	104000	2900000
8	2	.0%	144250.00	144250.00	123500	165000
9	3	.0%	99833.33	81000.00	79500	139000
M	24	.1%	265883.33	260500.00	180000	423000
~	87	.3%	262174.71	239000.00	36000	832000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * EXTER_1

1989 Descriptive Analysis.

SLDPRICE

EXTER_1	N	% of Total N	Mean	Median	Minimum	Maximum
	193	.6%	407782.41	310000.00	4000	3845000
A	1629	5.1%	227752.83	205000.00	13500	1500000
B	28185	87.9%	303538.38	258000.00	5000	5385000
C	111	.3%	312182.88	230000.00	11000	3450000
F	624	1.9%	239964.06	219000.00	100100	1000000
G	16	.0%	219868.75	215000.00	142000	307500
L	141	.4%	222514.54	188000.00	100000	950000
O	215	.7%	283364.42	213000.00	50000	1600000
P	406	1.3%	408452.03	289000.00	123000	2900000
S	280	.9%	446448.75	299000.00	122000	3150000
V	2	.0%	194000.00	194000.00	155000	233000
W	245	.8%	302931.90	243000.00	60000	1500000
~	13	.0%	397384.62	247000.00	36000	1820000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * GARAGE

APPENDIX F-1989 Descriptive Analysis

1989 Descriptive Analysis.

SLDPRICE

GARAGE	N	% of Total N	Mean	Median	Minimum	Maximum
	196	.6%	416046.45	305000.00	4000	3845000
A	73	.2%	337657.53	262500.00	178900	1600000
B	19	.1%	311647.37	261800.00	175000	635000
C	761	2.4%	248654.91	235000.00	112000	1325000
D	8491	26.5%	365779.74	322000.00	155000	3450000
H	379	1.2%	298991.38	245000.00	170900	4100000
J	255	.8%	279665.83	240000.00	135000	1250000
K	679	2.1%	282168.61	249000.00	145000	1695000
L	227	.7%	407014.70	322000.00	165000	1750000
M	142	.4%	757389.44	632500.00	149500	3150000
N	7691	24.0%	254984.42	225000.00	10000	3000000
O	475	1.5%	421469.16	272000.00	22000	5385000
P	38	.1%	406610.53	312500.00	146000	1306000
R	46	.1%	349097.83	287500.00	176000	1050000
S	8014	25.0%	260697.67	235560.00	5000	2750000
T	21	.1%	723185.71	715000.00	179000	1700000
U	18	.1%	148916.67	148000.00	79500	220000
X	3323	10.4%	275280.46	240000.00	30000	2000040
Y	1113	3.5%	373522.59	280000.00	100100	2475000
Z	39	.1%	544089.74	420000.00	215000	2600000
~	60	.2%	304548.33	249000.00	36000	1275000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * ROOMS

1989 Descriptive Analysis.

SLDPRICE

ROOMS	N	% of Total N	Mean	Median	Minimum	Maximum
0	322	1.0%	441886.66	298500.00	4000	5385000
1	27	.1%	201274.07	125000.00	10000	900000
2	26	.1%	174423.08	169000.00	10000	370000
3	113	.4%	203293.36	173500.00	13500	1000050
4	777	2.4%	198357.95	184000.00	81000	715000
5	3129	9.8%	232672.74	219900.00	49000	1180000
6	11869	37.0%	251509.67	234000.00	5000	1647000
7	6314	19.7%	281180.37	250000.00	112900	1725000
8	5848	18.2%	339894.01	310000.00	147900	2100000
9	2189	6.8%	438516.40	383000.00	138500	2600000
10	827	2.6%	578997.29	470800.00	180000	2900000
11	242	.8%	595465.18	450000.00	184000	2618000
12	132	.4%	696386.89	459500.00	220000	3500000
13	51	.2%	722657.65	530000.00	285000	2080000
14	53	.2%	665949.06	420800.00	290000	4100000
15	29	.1%	796117.24	658000.00	272000	3121500
16	22	.1%	613227.27	517000.00	187000	1400000
17	15	.0%	636266.67	455000.00	385000	2190000
18	15	.0%	649666.67	510000.00	310000	1525000
19	1	.0%	940000.00	940000.00	940000	940000
20	16	.0%	760250.00	687500.00	499000	2350000
21	3	.0%	656666.67	660000.00	600000	710000
22	3	.0%	468333.33	380000.00	365000	660000
23	2	.0%	827500.00	827500.00	700000	955000
24	3	.0%	953333.33	1000000.00	580000	1300000
26	3	.0%	794833.33	824000.00	348500	1212000
28	6	.0%	841666.67	740000.00	520000	1225000
29	2	.0%	630000.00	630000.00	585000	675000
30	2	.0%	582000.00	582000.00	544000	620000
31	1	.0%	850000.00	850000.00	850000	850000
32	3	.0%	841666.67	800000.00	740000	985000
33	1	.0%	820000.00	820000.00	820000	820000
35	1	.0%	990000.00	990000.00	990000	990000
36	1	.0%	1600000.00	1600000.00	1600000	1600000
40	3	.0%	795666.67	777000.00	675000	935000
60	1	.0%	940000.00	940000.00	940000	940000
61	1	.0%	239900.00	239900.00	239900	239900
63	1	.0%	255000.00	255000.00	255000	255000
73	1	.0%	2025000.00	2025000.00	2025000	2025000
76	2	.0%	1212500.00	1212500.00	1000000	1425000
88	1	.0%	340000.00	340000.00	340000	340000
99	2	.0%	1742500.00	1742500.00	1620000	1865000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * BEDS

APPENDIX F-1989 Descriptive Analysis

1989 Descriptive Analysis.

SLDPRICE

BEDS	N	% of Total N	Mean	Median	Minimum	Maximum
0	378	1.2%	434932.29	287500.00	4000	5385000
1	210	.7%	200752.05	174000.00	60000	950000
2	3431	10.7%	238122.20	215000.00	49000	1400000
3	17384	54.2%	263855.74	239900.00	5000	2600000
4	9171	28.6%	347633.32	310000.00	125000	3450000
5	1085	3.4%	555103.75	426300.00	155000	3121500
6	233	.7%	592359.43	411000.00	177000	3500000
7	59	.2%	712279.66	412000.00	139000	4100000
8	54	.2%	587105.31	500000.00	230000	3000000
9	55	.2%	769736.36	700000.00	227500	2350000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * NO_WASH

1989 Descriptive Analysis.

SLDPRICE

NO_WASH	N	% of Total N	Mean	Median	Minimum	Maximum
0	277	.9%	457085.90	310000.00	4000	5385000
1	4727	14.7%	232446.73	215000.00	5000	1500000
2	14239	44.4%	256969.01	235000.00	10000	1795000
3	10112	31.5%	325236.05	289000.00	65000	2100000
4	2252	7.0%	471515.16	399950.00	57000	2100000
5	306	1.0%	791130.68	733500.00	244900	2750000
6	79	.2%	1037694.30	830000.00	265000	2900000
7	33	.1%	1364106.06	1062500.00	315000	4100000
8	12	.0%	1520541.67	1075000.00	490000	3121500
9	23	.1%	1417066.96	1225000.00	415000	3500000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * FIRE

1989 Descriptive Analysis.

SLDPRICE

FIRE	N	% of Total N	Mean	Median	Minimum	Maximum
	211	.7%	391623.72	300000.00	4000	3845000
2	2	.0%	336500.00	336500.00	233000	440000
3	1	.0%	360000.00	360000.00	360000	360000
M	2426	7.6%	541900.48	437500.00	170000	4100000
N	12760	39.8%	237874.22	222000.00	10000	5385000
O	1495	4.7%	283524.38	245000.00	49000	2250000
R	128	.4%	264114.30	245000.00	140000	698000
S	6	.0%	201033.33	198500.00	170000	230000
Y	14885	46.4%	316937.81	281000.00	5000	3150000
~	146	.5%	307202.51	258000.00	36000	1525000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * FAM_ROOM

APPENDIX F-1989 Descriptive Analysis

1989 Descriptive Analysis.

SLDPRICE

FAM_ROOM	N	% of Total N	Mean	Median	Minimum	Maximum
	371	1.2%	380756.12	280000.00	4000	3845000
A	11222	35.0%	365624.80	308387.50	92000	4100000
B	1	.0%	318000.00	318000.00	318000	318000
N	19734	61.6%	262702.43	234000.00	5000	5385000
~	732	2.3%	308954.27	268000.00	38000	1725000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * HEAT

1989 Descriptive Analysis.

SLDPRICE

HEAT	N	% of Total N	Mean	Median	Minimum	Maximum
	205	.6%	398997.59	298000.00	4000	3845000
0	167	.5%	309303.89	220000.00	11000	3150000
1	988	3.1%	350441.89	295000.00	120000	1780000
2	2432	7.6%	295547.29	249000.00	5000	1920000
3	1787	5.6%	418337.45	334000.00	25000	5385000
4	24761	77.2%	289709.17	250000.00	10000	3500000
5	942	2.9%	284813.86	249250.00	11000	1600000
6	600	1.9%	347900.90	260000.00	124000	2718000
7	61	.2%	390783.61	370000.00	60000	1325000
8	54	.2%	362863.89	344500.00	155000	820000
W	6	.0%	332833.33	240000.00	60000	720000
~	57	.2%	234661.40	226500.00	36000	465000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * CAC

1989 Descriptive Analysis.

SLDPRICE

CAC	N	% of Total N	Mean	Median	Minimum	Maximum
	208	.6%	415236.08	310000.00	4000	3845000
N	19279	60.1%	274937.39	240000.00	5000	5385000
R	5	.0%	306200.00	270000.00	237000	423000
Y	12516	39.0%	339589.75	279500.00	10000	3500000
~	52	.2%	311932.46	247500.00	38000	1500000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * PARK_CAP

1989 Descriptive Analysis.

SLDPRICE

PARK_CAP	N	% of Total N	Mean	Median	Minimum	Maximum
0	7751	24.7%	255368.09	225000.00	10000	3000000
1	13457	42.9%	268563.90	238000.00	5000	4100000
2	9961	31.8%	367438.64	319000.00	100100	3450000
3	202	.6%	712651.98	607500.00	149500	3150000
Total	31371	100.0%	298700.09	254000.00	5000	4100000

SLDPRICE * BASEMENT

APPENDIX F-1989 Descriptive Analysis

1989 Descriptive Analysis.

SLDPRICE

BASEMENT	N	% of Total N	Mean	Median	Minimum	Maximum
	203	.6%	398635.99	312000.00	4000	3845000
A	2783	8.7%	270158.30	243000.00	17500	2190000
C	131	.4%	221205.73	195000.00	92000	690000
D	472	1.5%	293598.27	242750.00	120000	1500000
F	14492	45.2%	309516.03	252000.00	82000	4100000
L	9	.0%	278322.22	264000.00	189900	423000
N	439	1.4%	295432.97	225000.00	5000	3450000
O	2503	7.8%	308784.35	268000.00	13500	5385000
P	4949	15.4%	294864.63	249900.00	48000	2618000
U	6023	18.8%	297398.93	270000.00	11000	1800000
~	58	.2%	255687.32	240700.00	38000	630000
Total	32080	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * DRIVE

1989 Descriptive Analysis.

SLDPRICE

DRIVE	N	% of Total N	Mean	Median	Minimum	Maximum
	225	.7%	362226.24	225000.00	4000	3845000
?	76	.2%	281692.11	235000.00	38000	1550000
D	71	.2%	330690.14	283000.00	168000	1290000
F	245	.8%	316842.44	242000.00	11000	2500000
L	1976	6.2%	271987.75	245450.00	21000	1150000
M	2308	7.2%	278012.10	240000.00	10000	1635000
N	1301	4.1%	243934.74	215000.00	5000	1300000
O	220	.7%	303183.86	241000.00	11000	2025000
P	25323	79.0%	307663.07	258000.00	38000	5385000
R	313	1.0%	308105.59	242000.00	120000	1400000
~	2	.0%	183250.00	183250.00	168500	198000
Total	32080	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * POOL

1989 Descriptive Analysis.

SLDPRICE

POOL	N	% of Total N	Mean	Median	Minimum	Maximum
	250	.8%	354771.22	231250.00	4000	3845000
?	96	.3%	328722.19	249000.00	38000	2000000
A	410	1.3%	269960.24	230000.00	144000	4100000
H	46	.1%	710128.26	405000.00	186500	2618000
I	1387	4.3%	411232.47	316000.00	150000	3150000
N	29870	93.2%	295302.64	252000.00	5000	5385000
~	1	.0%	275000.00	275000.00	275000	275000
Total	32080	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * TYPE

APPENDIX F-1989 Descriptive Analysis

1989 Descriptive Analysis.

SLDPRICE

TYPE	N	% of Total N	Mean	Median	Minimum	Maximum
0	1	.0%	155500.00	155500.00	155500	155500
A	1189	3.7%	235019.23	210000.00	45000	1200000
B	107	.3%	202430.42	87000.00	4000	1160000
C	2	.0%	301000.00	301000.00	240000	362000
D	21472	67.0%	324786.77	275000.00	5000	4100000
F	10	.0%	335600.00	245000.00	160500	680000
G	6	.0%	463250.00	282250.00	125000	1525000
L	1777	5.5%	241092.09	239000.00	133000	411500
M	59	.2%	563728.31	495000.00	145500	1620000
O	460	1.4%	487689.88	355000.00	18500	5385000
R	10	.0%	418200.00	385000.00	240000	725000
S	6833	21.3%	237716.65	223000.00	99900	1201500
V	132	.4%	442399.62	311000.00	30000	3845000
~	2	.0%	108500.00	108500.00	36000	181000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * KITCHEN

1989 Descriptive Analysis.

SLDPRICE

KITCHEN	N	% of Total N	Mean	Median	Minimum	Maximum
0	393	1.2%	417344.54	278400.00	4000	5385000
1	25137	78.4%	302803.90	255000.00	5000	4100000
2	5621	17.5%	274385.32	243500.00	106000	3150000
3	737	2.3%	325011.51	285000.00	149900	2190000
4	99	.3%	485237.37	430000.00	225000	2350000
5	24	.1%	536412.50	415000.00	290000	1000000
6	21	.1%	629214.29	585000.00	370000	1300000
7	7	.0%	545857.14	345000.00	280000	1212000
8	4	.0%	752500.00	850000.00	375000	935000
9	17	.1%	972676.47	820000.00	396000	2500000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * BEACH

1989 Descriptive Analysis.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	26990	84.2%	308492.61	259800.00	4000	5385000
1	5070	15.8%	262076.60	230000.00	5000	2500000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * HWAY

1989 Descriptive Analysis.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	17428	54.4%	304651.94	255000.00	4000	4100000
1	14632	45.6%	296984.01	251000.00	5000	5385000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * SUBWAY

APPENDIX F-1989 Descriptive Analysis

1989 Descriptive Analysis.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	24291	75.8%	290299.91	250000.00	5000	5385000
1	7769	24.2%	335084.15	268000.00	4000	4100000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * MALL

1989 Descriptive Analysis.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	16681	52.0%	289611.22	248700.00	4000	3500000
1	15379	48.0%	313453.60	260000.00	5000	5385000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

SLDPRICE * MUNICIPAL

1989 Descriptive Analysis.

SLDPRICE

MUNICIPAL	N	% of Total N	Mean	Median	Minimum	Maximum
AJAX	1074	3.3%	210637.19	202000.00	5000	790000
AURORA	163	.5%	345528.69	281000.00	174000	1500000
BRAMPTON	1356	4.2%	231947.64	217000.00	27000	975000
BURLINGTON	16	.0%	195400.00	184500.00	120000	275000
CALEDON	30	.1%	426308.33	335000.00	125000	1647000
CALEDON E	8	.0%	297625.00	266500.00	195000	445000
E GWILL	6	.0%	307966.67	172450.00	38000	880000
EAST YORK	1011	3.2%	260203.42	228500.00	55000	1635000
ETOBICOKE	2006	6.3%	297600.66	259000.00	4000	1620000
GEORGINA	9	.0%	150600.00	145000.00	36000	300000
HALTON	1	.0%	391000.00	391000.00	391000	391000
KING	17	.1%	791641.24	589000.00	179000	3100000
MARKHAM	2193	6.8%	342808.42	303000.00	51000	2718000
MILTON	12	.0%	292233.33	242500.00	169800	620000
MISS	4865	15.2%	265218.76	236500.00	6000	5385000
NEWCASTLE	8	.0%	212500.00	180000.00	136000	369000
NEWMARKET	135	.4%	256204.59	241250.00	110000	485000
NORTH YORK	3070	9.6%	416068.27	323000.00	26000	3845000
OAKVILLE	232	.7%	332290.94	305000.00	55000	2500000
OSHAWA	157	.5%	181408.44	158000.00	112900	680000
PICKERING	1032	3.2%	248422.64	225000.00	122000	1600000
R HILL	1000	3.1%	369628.68	334500.00	10000	1395000
SCARBORO	5352	16.7%	262525.85	245000.00	10000	1865000
TORONTO	5544	17.3%	339077.72	272000.00	13500	4100000
UXBRIDGE	14	.0%	287371.43	218400.00	60000	649000
VAUGHAN	975	3.0%	356471.59	325000.00	25000	2200000
WHIT/STOUF	38	.1%	415336.84	371650.00	145000	940000
WHITBY	299	.9%	235254.01	216000.00	112000	2010000
YORK	1437	4.5%	242800.02	218000.00	11000	2100000
Total	32060	100.0%	301152.34	254000.00	4000	5385000

APPENDIX G: '1990 Descriptive Analysis.'

Summarize

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
SLDPRICE * STYLE	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * EXTER_1	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * GARAGE	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * ROOMS	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * BEDS	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * NO_WASH	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * KITCHEN	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * FIRE	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * FAM_ROOM	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * HEAT	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * CAC	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * PARK_CAP	22117	98.3%	384	1.7%	22501	100.0%
SLDPRICE * BASEMENT	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * DRIVE	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * POOL	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * TYPE	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * BEACH	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * HWAY	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * SUBWAY	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * MALL	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * BEACH_1	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * HWAY_1	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * SWAY_1	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * MALL_25	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * BEACH_DO	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * HWAY_DO	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * SWAY_DO	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * MALL_DO	22501	100.0%	0	.0%	22501	100.0%
SLDPRICE * MUNICIPAL	22501	100.0%	0	.0%	22501	100.0%

SLDPRICE * STYLE

APPENDIX G: '1990 Descriptive Analysis.'

1990 Descriptive Analysis.

SLDPRICE

STYLE	N	% of Total N	Mean	Median	Minimum	Maximum
	127	.6%	331449.61	199900.00	6000	3000000
0	169	.8%	328356.80	250000.00	9000	2800000
1	4932	21.9%	234809.84	219000.00	1050	3460000
2	12842	57.1%	282162.64	240000.00	12000	3500000
3	1045	4.6%	409626.43	320000.00	91500	2700000
4	1242	5.5%	238108.69	225000.00	100000	660000
5	639	2.8%	286493.90	255000.00	145000	2340000
6	213	.9%	272902.25	227000.00	140300	825000
7	727	3.2%	247751.78	223000.00	110000	1700000
8	4	.0%	246000.00	222000.00	200000	340000
9	4	.0%	125750.00	86000.00	71000	260000
A	3	.0%	184500.00	182500.00	175000	196000
B	1	.0%	1055000.00	1055000.00	1055000	1055000
H	8	.0%	276187.50	182500.00	80000	720000
K	17	.1%	231214.71	213750.00	144900	530000
L	1	.0%	194000.00	194000.00	194000	194000
M	467	2.1%	255301.07	238000.00	130000	1550000
~	60	.3%	252578.67	228000.00	146000	625000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * EXTER_1

1990 Descriptive Analysis.

SLDPRICE

EXTER_1	N	% of Total N	Mean	Median	Minimum	Maximum
	144	.6%	324947.57	198450.00	6000	3000000
5	5	.0%	186800.00	190000.00	130000	234000
A	937	4.2%	201650.52	185000.00	60000	800000
B	19823	88.1%	276458.83	237500.00	1250	3460000
C	326	1.4%	215217.02	205000.00	1050	550000
F	332	1.5%	213371.01	204250.00	100000	670000
G	11	.0%	220490.91	195500.00	145000	380000
L	105	.5%	165056.99	159500.00	80000	320000
M	1	.0%	375000.00	375000.00	375000	375000
O	108	.5%	245869.91	190000.00	21000	1270000
P	267	1.2%	392143.82	270000.00	130000	3500000
S	235	1.0%	457591.26	330000.00	65000	2250000
V	27	.1%	196648.15	165000.00	117000	735000
W	163	.7%	248265.03	213000.00	60000	795000
~	17	.1%	277823.53	265000.00	91000	625000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * GARAGE

APPENDIX G: '1990 Descriptive Analysis.'

1990 Descriptive Analysis.

SLDPRICE

GARAGE	N	% of Total N	Mean	Median	Minimum	Maximum
	157	.7%	318060.10	190000.00	6000	3000000
A	47	.2%	252587.28	225000.00	142000	535000
B	8	.0%	343300.00	270500.00	184000	815000
C	555	2.5%	233369.55	215000.00	100000	1050000
D	6734	29.9%	327884.62	289000.00	100000	3460000
H	271	1.2%	252770.66	226000.00	153000	1500000
J	167	.7%	227183.53	210000.00	126300	920000
K	565	2.5%	267425.81	235000.00	133000	1035000
L	201	.9%	375873.13	290000.00	163000	2400000
M	89	.4%	687910.11	576000.00	18000	2250000
N	4870	21.6%	226290.82	203450.00	9000	2775000
O	223	1.0%	338107.85	247000.00	60000	3500000
P	44	.2%	383677.27	305750.00	11000	1150000
R	57	.3%	323031.58	255000.00	176000	1450000
S	5585	24.8%	237412.07	217000.00	1050	1850000
T	93	.4%	688879.44	550000.00	210000	2500000
U	4	.0%	192750.00	155500.00	100000	360000
X	2032	9.0%	248240.53	222500.00	80000	1300000
Y	728	3.2%	323571.78	250000.00	138000	2700000
Z	33	.1%	504960.61	380000.00	161800	1501000
~	38	.2%	285650.00	222500.00	162000	950000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * ROOMS

APPENDIX G: '1990 Descriptive Analysis.'

1990 Descriptive Analysis.

SLDPRICE

ROOMS	N	% of Total N	Mean	Median	Minimum	Maximum
0	185	.8%	362182.16	197000.00	6000	3000000
1	18	.1%	123666.67	71500.00	9000	580000
2	11	.0%	103477.27	112000.00	34250	160000
3	61	.3%	206096.36	158000.00	58000	1501000
4	487	2.2%	183004.25	169000.00	25000	2775000
5	2107	9.4%	205936.62	197000.00	40000	1100000
6	7889	35.1%	227853.97	215000.00	1050	1500000
7	4624	20.6%	255994.79	230000.00	80000	3460000
8	4379	19.5%	305757.96	279000.00	85000	1550000
9	1689	7.5%	396801.62	355000.00	120000	2200000
10	645	2.9%	505375.37	435000.00	150000	2450000
11	185	.8%	584006.96	450000.00	210000	2400000
12	93	.4%	664715.05	485000.00	165000	2500000
13	30	.1%	544716.67	470000.00	200000	1425000
14	37	.2%	515259.46	418000.00	175000	1910000
15	16	.1%	520906.25	380500.00	275000	2000000
16	9	.0%	506111.11	475000.00	270000	920000
17	12	.1%	551916.67	457500.00	320000	1700000
18	2	.0%	508500.00	508500.00	435000	582000
19	2	.0%	1929950.00	1929950.00	359900	3500000
20	4	.0%	467450.00	464500.00	415800	525000
22	1	.0%	525000.00	525000.00	525000	525000
23	2	.0%	610000.00	610000.00	460000	760000
24	2	.0%	431000.00	431000.00	380000	482000
25	1	.0%	617000.00	617000.00	617000	617000
26	1	.0%	480000.00	480000.00	480000	480000
27	2	.0%	542500.00	542500.00	485000	600000
28	2	.0%	572500.00	572500.00	565000	580000
30	2	.0%	650000.00	650000.00	550000	750000
31	1	.0%	1100000.00	1100000.00	1100000	1100000
33	1	.0%	590000.00	590000.00	590000	590000
36	1	.0%	1200000.00	1200000.00	1200000	1200000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * BEDS

1990 Descriptive Analysis.

SLDPRICE

BEDS	N	% of Total N	Mean	Median	Minimum	Maximum
0	205	.9%	349343.66	180000.00	6000	3000000
1	126	.6%	192548.02	154000.00	60000	1200000
2	2316	10.3%	212514.93	197375.00	65000	1220000
3	11970	53.2%	240112.92	220000.00	1050	3460000
4	6853	30.5%	317495.23	283000.00	80000	3500000
5	788	3.5%	505364.45	420000.00	125000	2450000
6	149	.7%	525069.72	366000.00	159000	2700000
7	35	.2%	621942.86	375000.00	155000	2500000
8	32	.1%	465175.00	453000.00	175000	785000
9	27	.1%	600514.81	580000.00	270000	1700000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * NO_WASH

APPENDIX G: '1990 Descriptive Analysis.'

1990 Descriptive Analysis.

SLDPRICE

NO_WASH	N	% of Total N	Mean	Median	Minimum	Maximum
0	171	.8%	381189.47	235000.00	10000	3000000
1	3132	13.9%	208178.99	195000.00	6000	1501000
2	9463	42.1%	232362.66	216000.00	1050	2050000
3	7400	32.9%	289982.19	262000.00	36000	2450000
4	1948	8.7%	415901.22	361000.00	42000	3460000
5	261	1.2%	683316.09	625000.00	190000	2200000
6	69	.3%	882782.61	750000.00	85000	2775000
7	24	.1%	1003070.83	850000.00	246000	2400000
8	15	.1%	1317866.67	1200000.00	540000	3500000
9	18	.1%	1022988.22	722500.00	380000	2700000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * KITCHEN

1990 Descriptive Analysis.

SLDPRICE

KITCHEN	N	% of Total N	Mean	Median	Minimum	Maximum
0	216	1.0%	358943.06	204400.00	6000	3000000
1	18272	81.2%	276709.03	235000.00	1050	3460000
2	3508	15.6%	249313.54	225000.00	28000	3500000
3	413	1.8%	279908.72	249000.00	145000	2700000
4	59	.3%	440906.78	360000.00	145000	1520000
5	11	.0%	453600.00	415800.00	240000	667000
6	9	.0%	600333.33	525000.00	380000	1200000
7	2	.0%	673000.00	673000.00	246000	1100000
8	1	.0%	550000.00	550000.00	550000	550000
9	10	.0%	528000.00	510000.00	235000	890000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * FIRE

1990 Descriptive Analysis.

SLDPRICE

FIRE	N	% of Total N	Mean	Median	Minimum	Maximum
	134	.6%	337456.72	199950.00	6000	3000000
*	1	.0%	195000.00	195000.00	195000	195000
2	25	.1%	336292.00	313000.00	222000	625000
3	2	.0%	312500.00	312500.00	300000	325000
4	1	.0%	340000.00	340000.00	340000	340000
C	1	.0%	310000.00	310000.00	310000	310000
G	2	.0%	196500.00	196500.00	193000	200000
I	1	.0%	330000.00	330000.00	330000	330000
M	1851	8.2%	477797.29	397000.00	122000	3500000
N	8104	36.0%	213153.31	201000.00	1250	3460000
O	709	3.2%	231274.05	215000.00	101000	2050000
P	2	.0%	233000.00	233000.00	230000	236000
R	95	.4%	234608.63	217000.00	135000	620000
S	49	.2%	186379.86	192000.00	1050	300000
W	2	.0%	143000.00	143000.00	96000	190000
Y	11459	50.9%	286672.53	255900.00	65000	2700000
~	63	.3%	295153.97	260000.00	95000	860000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * FAM_ROOM

APPENDIX G: '1990 Descriptive Analysis.'

1990 Descriptive Analysis.

SLDPRICE

FAM_ROOM	N	% of Total N	Mean	Median	Minimum	Maximum
	137	.6%	333142.34	199900.00	6000	3000000
A	8733	38.8%	331118.22	279800.00	100000	3500000
N	13280	59.0%	235855.69	213900.00	1050	3460000
~	351	1.6%	278855.24	252000.00	95000	1280000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * HEAT

1990 Descriptive Analysis.

SLDPRICE

HEAT	N	% of Total N	Mean	Median	Minimum	Maximum
	140	.6%	333306.57	193500.00	6000	3000000
0	151	.7%	246087.42	203500.00	68000	995000
1	688	3.1%	307171.87	261000.00	100000	2000000
2	1555	6.9%	251640.56	221900.00	65000	3460000
3	1208	5.4%	359950.93	299900.00	34250	2600000
4	17573	78.1%	267958.97	232000.00	1050	3500000
5	631	2.8%	252103.86	214000.00	16000	2700000
6	440	2.0%	307417.23	237200.00	11000	2400000
7	41	.2%	426436.59	343000.00	95000	2340000
8	48	.2%	363941.67	308750.00	167000	1300000
W	1	.0%	199000.00	199000.00	199000	199000
~	27	.1%	312696.30	269000.00	95000	625000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * CAC

1990 Descriptive Analysis.

SLDPRICE

CAC	N	% of Total N	Mean	Median	Minimum	Maximum
	139	.6%	332445.32	197000.00	6000	3000000
C	1	.0%	267000.00	267000.00	267000	267000
H	1	.0%	305000.00	305000.00	305000	305000
N	11557	51.4%	247114.00	219000.00	1050	2600000
R	53	.2%	283662.26	255000.00	188000	540000
U	1	.0%	173500.00	173500.00	173500	173500
W	1	.0%	160000.00	160000.00	160000	160000
Y	10722	47.7%	302317.06	252000.00	15000	3500000
~	26	.1%	301850.00	268500.00	95000	780000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * PARK_CAP

1990 Descriptive Analysis.

SLDPRICE

PARK_CAP	N	% of Total N	Mean	Median	Minimum	Maximum
0	4908	22.2%	226750.40	203800.00	9000	2775000
1	9232	41.7%	242183.72	220000.00	1050	1850000
2	7762	35.1%	328593.84	285000.00	11000	3460000
3	215	1.0%	660248.78	550000.00	18000	2500000
Total	22117	100.0%	273148.71	234000.00	1050	3460000

APPENDIX G: '1990 Descriptive Analysis.'

SLDPRICE * BASEMENT

1990 Descriptive Analysis.

SLDPRICE

BASEMENT	N	% of Total N	Mean	Median	Minimum	Maximum
	132	.6%	341202.27	202500.00	6000	3000000
A	1743	7.7%	241845.48	222000.00	117000	1500000
C	69	.3%	174936.10	160000.00	68000	427000
D	242	1.1%	250763.83	220000.00	91500	1000000
F	10179	45.2%	283100.94	232700.00	1050	3500000
H	15	.1%	191933.33	178000.00	80000	350000
L	376	1.7%	251370.61	233500.00	55000	850000
N	193	.9%	258129.13	178000.00	11000	3460000
O	1218	5.4%	281607.58	248250.00	21000	2600000
P	3343	14.9%	271615.02	230000.00	12000	2450000
U	4951	22.0%	270058.76	245000.00	9000	2775000
~	40	.2%	276028.75	267500.00	95000	625000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * DRIVE

1990 Descriptive Analysis.

SLDPRICE

DRIVE	N	% of Total N	Mean	Median	Minimum	Maximum
	151	.7%	325004.64	187000.00	6000	3000000
?	26	.1%	275900.00	221750.00	95000	1060000
D	1051	4.7%	276398.47	244000.00	117000	2000000
F	112	.5%	260649.29	212000.00	16000	1145000
L	1206	5.4%	248154.07	220000.00	15000	2700000
M	1469	6.5%	245456.75	220000.00	24000	1303500
N	781	3.5%	224094.36	195000.00	9000	2775000
O	421	1.9%	246650.51	215000.00	1050	1550000
P	17062	75.8%	280610.96	237000.00	1250	3500000
R	219	1.0%	277686.76	223000.00	60000	1365000
~	1	.0%	165000.00	165000.00	165000	165000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * POOL

1990 Descriptive Analysis.

SLDPRICE

POOL	N	% of Total N	Mean	Median	Minimum	Maximum
	161	.7%	306189.44	192500.00	6000	3000000
?	63	.3%	332277.78	240500.00	95000	2250000
A	260	1.2%	224904.81	210000.00	120000	1180000
H	19	.1%	585157.89	495000.00	205000	1300000
I	1076	4.8%	357963.93	285000.00	100000	2700000
N	20922	93.0%	269668.37	232000.00	1050	3500000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * TYPE

APPENDIX G: '1990 Descriptive Analysis.'

1990 Descriptive Analysis.

SLDPRICE

TYPE	N	% of Total N	Mean	Median	Minimum	Maximum
0	1	.0%	272000.00	272000.00	272000	272000
A	739	3.3%	209477.70	192500.00	95000	750000
B	62	.3%	123499.19	61250.00	9000	1501000
D	15773	70.1%	283805.20	250000.00	1050	3500000
F	15	.1%	327950.00	240000.00	90000	1100000
G	2	.0%	161500.00	161500.00	150000	173000
J	2	.0%	207500.00	207500.00	175000	240000
K	2	.0%	167500.00	167500.00	150000	185000
L	1313	5.8%	220362.50	218900.00	120000	376000
M	40	.2%	447795.00	335000.00	150000	2700000
O	252	1.1%	439292.26	307500.00	6000	3000000
R	6	.0%	645500.00	612500.00	385000	995000
S	4225	18.8%	218063.69	205000.00	68000	1365000
V	67	.3%	304647.76	190000.00	10000	2475000
W	1	.0%	640000.00	640000.00	640000	640000
X	1	.0%	230000.00	230000.00	230000	230000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * BEACH

1990 Descriptive Analysis.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	19232	85.5%	280857.60	238000.00	1050	3500000
1	3269	14.5%	234286.99	210000.00	9000	2600000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * HWAY

1990 Descriptive Analysis.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	12489	55.5%	276932.37	235000.00	1050	3460000
1	10012	44.5%	270548.27	232000.00	1250	3500000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * SUBWAY

1990 Descriptive Analysis.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	17356	77.1%	263244.63	230000.00	1050	3460000
1	5145	22.9%	310682.95	245000.00	6000	3500000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * MALL

APPENDIX G: '1990 Descriptive Analysis.'

1990 Descriptive Analysis.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	12216	54.3%	264807.87	230000.00	1050	3500000
1	10285	45.7%	285118.58	239000.00	6000	2700000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * BEACH_1

1990 Descriptive Analysis.

SLDPRICE

BEACH_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	21050	93.6%	276361.12	235000.00	1050	3500000
1	1451	6.4%	241168.84	215000.00	9000	2600000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * HWAY_1

1990 Descriptive Analysis.

SLDPRICE

HWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	18116	80.5%	275883.17	234500.00	1050	3500000
1	4385	19.5%	266690.58	232900.00	10000	2700000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * SWAY_1

1990 Descriptive Analysis.

SLDPRICE

SWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	18948	84.2%	267233.71	232000.00	1050	3500000
1	3553	15.8%	310665.17	247000.00	11000	2775000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * MALL_25

1990 Descriptive Analysis.

SLDPRICE

MALL_25	N	% of Total N	Mean	Median	Minimum	Maximum
0	20079	89.2%	275937.59	234900.00	1050	3500000
1	2422	10.8%	258788.95	230000.00	6000	2050000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * BEACH_DO

APPENDIX G: '1990 Descriptive Analysis.'

1990 Descriptive Analysis.

SLDPRICE

BEACH_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	20683	91.9%	278073.27	236000.00	1050	3500000
1.00	1818	8.1%	228794.39	207500.00	28000	1500000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * HWAY_DO

1990 Descriptive Analysis.

SLDPRICE

HWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	16874	75.0%	274270.88	235000.00	1050	3460000
1.00	5627	25.0%	273554.50	230100.00	1250	3500000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * SWAY_DO

1990 Descriptive Analysis.

SLDPRICE

SWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	20909	92.9%	271302.65	233000.00	1050	3460000
1.00	1592	7.1%	310722.63	245000.00	6000	3500000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * MALL_DO

1990 Descriptive Analysis.

SLDPRICE

MALL_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	14638	65.1%	263811.98	230000.00	1050	3500000
1.00	7863	34.9%	293228.77	240000.00	10000	2700000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

SLDPRICE * MUNICIPAL

APPENDIX G: '1990 Descriptive Analysis.'

1990 Descriptive Analysis.

SLDPRICE

MUNICIPAL	N	% of Total N	Mean	Median	Minimum	Maximum
AJAX	849	3.8%	194712.08	185000.00	115000	550000
AURORA	402	1.8%	289751.12	245000.00	145000	1550000
BRAMPTON	925	4.1%	213777.17	200000.00	65000	1150000
BURLINGTON	15	.1%	235766.67	178500.00	143500	690000
CALEDON	14	.1%	345571.43	318000.00	168500	625000
E GWILL	25	.1%	263898.00	215000.00	145000	550000
EAST YORK	752	3.3%	232097.99	210000.00	62500	1015000
ETOBICOKE	1371	6.1%	280785.38	244000.00	1250	1500000
GEORGINA	31	.1%	123209.68	120000.00	10000	249900
HALTON	1	.0%	195000.00	195000.00	195000	195000
KING	11	.0%	485227.27	330000.00	155000	1100000
MARKHAM	1542	6.9%	310712.57	280250.00	40000	1550000
MILTON	8	.0%	299562.50	235000.00	130000	550000
MISS	3195	14.2%	245953.54	225000.00	25000	1150000
NEWCASTLE	3	.0%	149266.67	157800.00	117000	173000
NEWMARKET	546	2.4%	225752.98	213000.00	1050	535000
NORTH YORK	2098	9.3%	378863.23	290000.00	10000	3500000
OAKVILLE	180	.8%	296784.78	282500.00	130000	900000
OSHAWA	106	.5%	158539.81	145000.00	90000	315000
PICKERING	747	3.3%	216183.65	204000.00	69000	850000
R HILL	809	3.6%	341596.47	318000.00	45000	2475000
SCARBORO	3388	15.1%	239531.16	225000.00	9000	925000
TORONTO	3613	16.1%	310685.60	249000.00	6000	2775000
UXBRIDGE	37	.2%	278373.32	237000.00	83000	705000
VAUGHAN	760	3.4%	303596.94	280000.00	24000	1200000
WHIT/STOUF	43	.2%	357704.65	310000.00	131900	995000
WHITBY	220	1.0%	205791.55	199450.00	28000	645000
YORK	810	3.6%	224463.63	202000.00	16000	1800000
Total	22501	100.0%	274091.71	234000.00	1050	3500000

APPENDIX H: '1991 Descriptive Analysis.'

Summarize

Case Processing Summary

	Cases					
	Included		Excluded		Total	
	N	Percent	N	Percent	N	Percent
SLDPRICE * STYLE	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * EXTER_1	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * GARAGE	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * ROOMS	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * BEDS	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * NO_WASH	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * KITCHEN	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * FIRE	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * FAM_ROOM	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * HEAT	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * CAC	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * PARK_CAP	30536	98.3%	522	1.7%	31058	100.0%
SLDPRICE * BASEMENT	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * DRIVE	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * POOL	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * TYPE	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * BEACH	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * HWAY	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * SUBWAY	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * MALL	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * BEACH_1	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * HWAY_1	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * SWAY_1	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * MALL_25	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * BEACH_DO	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * HWAY_DO	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * SWAY_DO	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * MALL_DO	31058	100.0%	0	.0%	31058	100.0%
SLDPRICE * MUNICIPAL	31058	100.0%	0	.0%	31058	100.0%

SLDPRICE * STYLE

APPENDIX H: '1991 Descriptive Analysis.'

1991 Descriptive Analysis.

SLDPRICE

STYLE	N	% of Total N	Mean	Median	Minimum	Maximum
	135	.4%	293797.41	210000.00	11500	3740000
0	217	.7%	286762.21	231000.00	16000	2400000
1	6665	21.5%	217924.58	204900.00	1100	1480000
2	17671	56.9%	261476.79	224000.00	1400	3400000
3	1471	4.7%	353244.27	280000.00	92500	2100000
4	1836	5.9%	218653.17	204750.00	90000	1090000
5	933	3.0%	261884.24	240000.00	1150	900000
6	367	1.2%	276879.86	215000.00	1150	2700000
7	956	3.1%	229195.30	207500.00	80000	1483800
8	9	.0%	230266.67	233000.00	175000	317500
B	1	.0%	130000.00	130000.00	130000	130000
D	1	.0%	285000.00	285000.00	285000	285000
H	8	.0%	223812.50	212500.00	153000	315000
K	39	.1%	205169.23	190000.00	100000	537400
M	714	2.3%	246512.92	230000.00	77000	1225000
O	3	.0%	147333.33	145000.00	102000	195000
~	32	.1%	217128.12	212500.00	112000	475000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * EXTER_1

1991 Descriptive Analysis.

SLDPRICE

EXTER_1	N	% of Total N	Mean	Median	Minimum	Maximum
	151	.5%	290527.48	210000.00	11500	3740000
5	13	.0%	173730.77	160000.00	115000	310000
A	1158	3.7%	187193.99	169900.00	1100	1340000
B	27596	88.9%	254086.81	220000.00	1150	2375000
C	469	1.5%	212703.11	198000.00	90000	810000
F	417	1.3%	197667.95	177900.00	76000	900000
G	19	.1%	178115.79	160000.00	95000	330000
L	116	.4%	166183.52	146000.00	90000	1240000
M	2	.0%	224950.00	224950.00	199900	250000
O	136	.4%	258283.46	185575.00	33500	2400000
P	369	1.2%	361624.81	266000.00	70000	1896000
S	328	1.1%	437675.99	317500.00	89000	3400000
V	63	.2%	177934.92	157000.00	85000	495000
W	213	.7%	241922.42	191250.00	1150	2700000
~	8	.0%	236048.50	228000.00	190000	273500
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * GARAGE

APPENDIX H: '1991 Descriptive Analysis.'

1991 Descriptive Analysis.

SLDPRICE

GARAGE	N	% of Total N	Mean	Median	Minimum	Maximum
	186	.6%	277363.71	197000.00	11500	3740000
A	51	.2%	250227.45	232500.00	140000	505000
B	21	.1%	218469.05	212500.00	160000	330000
C	754	2.4%	210256.42	198000.00	100000	975000
D	9402	30.3%	301268.99	269000.00	1100	2100000
H	434	1.4%	235814.47	212000.00	70600	1530000
J	260	.8%	222342.91	198000.00	112500	950000
K	863	2.8%	248207.88	216900.00	105000	1900000
L	313	1.0%	362506.50	286000.00	138000	1500000
M	67	.2%	718472.39	575000.00	1700	2700000
N	6669	21.5%	207278.79	185000.00	1150	2400000
O	334	1.1%	315814.33	230000.00	1400	1850000
P	58	.2%	398448.28	300000.00	140000	1237500
R	53	.2%	310773.58	231000.00	150000	835000
S	7507	24.2%	219497.77	200000.00	2500	3400000
T	193	.6%	594761.42	515000.00	190000	1898000
U	2	.0%	116750.00	116750.00	33500	200000
X	2887	9.3%	231117.65	208000.00	60000	1405000
Y	917	3.0%	301440.51	235000.00	90000	1650000
Z	47	.2%	353037.23	320000.00	102000	880000
~	20	.1%	267655.00	222000.00	93500	1100000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * ROOMS

APPENDIX H: '1991 Descriptive Analysis.'

1991 Descriptive Analysis.

SLDPRICE

ROOMS	N	% of Total N	Mean	Median	Minimum	Maximum
0	217	.7%	303572.12	215000.00	11500	3740000
1	15	.0%	238233.33	122500.00	21000	950000
2	15	.0%	132165.33	139980.00	28500	187500
3	92	.3%	155210.87	140000.00	28000	380000
4	603	1.9%	165590.94	155000.00	20000	580000
5	2880	9.3%	191617.36	182500.00	65000	800000
6	10829	34.9%	210381.61	198000.00	1100	1200000
7	6318	20.3%	236925.43	215000.00	1150	1295000
8	6193	19.9%	282555.15	258800.00	80000	2475000
9	2472	8.0%	368641.67	328000.00	1850	3400000
10	861	2.8%	454169.44	380500.00	1150	2100000
11	267	.9%	494618.91	385000.00	125000	1925000
12	129	.4%	549793.59	416000.00	1700	1730000
13	34	.1%	606273.53	452500.00	190500	1898000
14	37	.1%	519162.16	330000.00	210000	1875000
15	22	.1%	560863.64	410000.00	225000	2700000
16	14	.0%	476785.71	357500.00	230000	1400000
17	10	.0%	374950.00	353500.00	300000	482500
18	11	.0%	436909.00	446999.00	256000	567000
19	2	.0%	401500.00	401500.00	220000	583000
20	7	.0%	512142.86	540000.00	400000	600000
21	3	.0%	517000.00	582000.00	355000	614000
22	4	.0%	454875.00	439750.00	410000	530000
23	2	.0%	957500.00	957500.00	565000	1350000
24	3	.0%	636666.67	450000.00	360000	1100000
25	1	.0%	445000.00	445000.00	445000	445000
26	5	.0%	447000.00	450000.00	325000	520000
27	1	.0%	700000.00	700000.00	700000	700000
28	2	.0%	460000.00	460000.00	360000	560000
30	1	.0%	470000.00	470000.00	470000	470000
32	1	.0%	655000.00	655000.00	655000	655000
36	2	.0%	500000.00	500000.00	500000	500000
66	1	.0%	250000.00	250000.00	250000	250000
71	1	.0%	260000.00	260000.00	260000	260000
72	1	.0%	1800000.00	1800000.00	1800000	1800000
74	1	.0%	173500.00	173500.00	173500	173500
93	1	.0%	1050000.00	1050000.00	1050000	1050000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * BEDS

1991 Descriptive Analysis.

SLDPRICE

BEDS	N	% of Total N	Mean	Median	Minimum	Maximum
0	235	.8%	303406.94	210000.00	11500	3740000
1	177	.6%	156503.89	145000.00	54900	500000
2	2943	9.5%	195669.05	180000.00	1150	1200000
3	16641	53.6%	221532.87	205000.00	1100	1295000
4	9667	31.1%	295562.50	264500.00	1700	2475000
5	1087	3.5%	462213.84	375000.00	88000	3400000
6	182	.6%	451220.45	315000.00	119000	2100000
7	46	.1%	457845.65	321500.00	155000	1405000
8	44	.1%	382213.36	357500.00	177000	674000
9	36	.1%	436472.22	442500.00	162000	1050000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

APPENDIX H: '1991 Descriptive Analysis.'

SLDPRICE * NO_WASH

1991 Descriptive Analysis.

SLDPRICE

NO_WASH	N	% of Total N	Mean	Median	Minimum	Maximum
0	204	.7%	308001.23	208500.00	20000	3740000
1	4052	13.0%	191383.23	180000.00	20000	925000
2	12868	41.4%	214071.83	199900.00	1100	1350000
3	10308	33.2%	267110.82	242500.00	1850	1254500
4	3029	9.8%	363886.97	320000.00	1150	3400000
5	395	1.3%	615127.03	580000.00	121000	1900000
6	140	.5%	724428.12	670500.00	150000	2100000
7	29	.1%	930284.48	940000.00	185000	1800000
8	20	.1%	1166600.00	1020250.00	325000	2700000
9	13	.0%	1064923.08	800000.00	350000	2475000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * KITCHEN

1991 Descriptive Analysis.

SLDPRICE

KITCHEN	N	% of Total N	Mean	Median	Minimum	Maximum
0	224	.7%	301536.83	210000.00	11500	3740000
1	25195	81.1%	256427.44	220000.00	1100	3400000
2	4912	15.8%	229840.23	207500.00	1150	2700000
3	574	1.8%	252317.91	224750.00	88000	1630000
4	93	.3%	325803.22	310000.00	110000	700000
5	21	.1%	343333.33	350000.00	140000	580000
6	30	.1%	431149.97	450000.00	150000	700000
7	1	.0%	220000.00	220000.00	220000	220000
8	5	.0%	462800.00	470000.00	325000	614000
9	3	.0%	566666.67	500000.00	150000	1050000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * FIRE

APPENDIX H: '1991 Descriptive Analysis.'

1991 Descriptive Analysis.

SLDPRICE

FIRE	N	% of Total N	Mean	Median	Minimum	Maximum
	159	.5%	301422.96	210000.00	11500	3740000
*	1	.0%	180000.00	180000.00	180000	180000
2	49	.2%	293653.06	275000.00	140000	610000
3	2	.0%	347000.00	347000.00	304000	390000
4	2	.0%	670000.00	670000.00	530000	810000
A	1	.0%	195000.00	195000.00	195000	195000
F	1	.0%	233000.00	233000.00	233000	233000
G	12	.0%	207791.67	195750.00	176000	315000
I	1	.0%	234000.00	234000.00	234000	234000
M	2609	8.4%	444256.66	370000.00	1150	2700000
N	11116	35.8%	194212.39	185000.00	20000	2400000
O	917	3.0%	214438.49	198000.00	93500	900000
P	3	.0%	205666.67	205000.00	163000	249000
R	109	.4%	222950.46	200000.00	1400	779000
S	76	.2%	182371.05	178000.00	90000	273000
W	3	.0%	171783.33	170000.00	162350	183000
Y	15965	51.4%	264704.44	238000.00	1100	3400000
~	32	.1%	286590.53	238750.00	142500	850000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * FAM_ROOM

1991 Descriptive Analysis.

SLDPRICE

FAM_ROOM	N	% of Total N	Mean	Median	Minimum	Maximum
	160	.5%	299701.56	210000.00	11500	3740000
A	12345	39.7%	307060.48	260000.00	1100	2700000
N	18350	59.1%	215944.39	195000.00	1150	3400000
~	203	.7%	272347.10	228000.00	92500	1550000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * HEAT

1991 Descriptive Analysis.

SLDPRICE

HEAT	N	% of Total N	Mean	Median	Minimum	Maximum
	163	.5%	291168.04	212000.00	11500	3740000
0	190	.6%	241206.32	188500.00	20000	1275000
1	811	2.6%	284664.65	247000.00	100000	950000
2	2071	6.7%	236849.76	211000.00	89000	1300000
3	1587	5.1%	336990.46	285000.00	21000	2375000
4	24533	79.0%	247435.37	215000.00	1100	3400000
5	955	3.1%	228050.12	195000.00	1150	1483800
6	627	2.0%	287482.07	230000.00	28000	1925000
7	44	.1%	338974.73	304250.00	104500	1118888
8	54	.2%	311063.43	294750.00	110000	590000
N	1	.0%	150000.00	150000.00	150000	150000
O	2	.0%	1280000.00	1280000.00	160000	2400000
W	1	.0%	167500.00	167500.00	167500	167500
~	19	.1%	225747.37	200000.00	145000	420000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * CAC

APPENDIX H: '1991 Descriptive Analysis.'

1991 Descriptive Analysis.

SLDPRICE

CAC	N	% of Total N	Mean	Median	Minimum	Maximum
	166	.5%	292550.60	208500.00	11500	3740000
*	3	.0%	258000.00	293000.00	185000	296000
7	1	.0%	218000.00	218000.00	218000	218000
C	1	.0%	158000.00	158000.00	158000	158000
H	2	.0%	370000.00	370000.00	200000	540000
N	14741	47.5%	225188.30	200000.00	1150	2400000
R	59	.2%	276345.76	250000.00	137500	465000
T	1	.0%	226000.00	226000.00	226000	226000
X	1	.0%	164000.00	164000.00	164000	164000
Y	16056	51.7%	277985.18	235000.00	1100	3400000
~	27	.1%	250007.41	225000.00	146900	432000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * PARK_CAP

1991 Descriptive Analysis.

SLDPRICE

PARK_CAP	N	% of Total N	Mean	Median	Minimum	Maximum
0	6689	21.9%	207459.32	185000.00	1150	2400000
1	12778	41.8%	224552.43	203000.00	2500	3400000
2	10762	35.2%	303184.90	266000.00	1100	2100000
3	307	1.0%	584753.60	490000.00	1700	2700000
Total	30536	100.0%	252142.44	218000.00	1100	3400000

SLDPRICE * BASEMENT

1991 Descriptive Analysis.

SLDPRICE

BASEMENT	N	% of Total N	Mean	Median	Minimum	Maximum
	156	.5%	303325.32	210000.00	11500	3740000
A	2484	8.0%	222464.18	208000.00	94000	1050000
C	137	.4%	180789.05	152000.00	65000	1480000
D	267	.9%	245620.17	200000.00	77000	1240000
F	14744	47.5%	261705.82	218000.00	1100	3400000
H	42	.1%	227564.29	184950.00	89000	615000
L	681	2.2%	246338.01	227000.00	1400	1498000
N	281	.9%	230752.49	175000.00	1150	2400000
O	619	2.0%	255343.23	223000.00	1700	1800000
P	4634	14.9%	248177.87	215000.00	1150	1550000
U	6997	22.5%	250301.88	228000.00	1850	1500000
~	16	.1%	389768.75	230200.00	129500	1900000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * DRIVE

APPENDIX H: '1991 Descriptive Analysis.'

1991 Descriptive Analysis.

SLDPRICE

DRIVE	N	% of Total N	Mean	Median	Minimum	Maximum
	159	.5%	285529.25	207000.00	11500	3740000
?	22	.1%	238986.36	237950.00	124000	465000
D	2531	8.1%	271579.17	240000.00	80000	2100000
F	166	.5%	230046.39	182500.00	70800	750000
G	1	.0%	20000.00	20000.00	20000	20000
L	1712	5.5%	223680.72	205000.00	1150	1050000
M	1961	6.3%	237979.89	210000.00	21000	950000
N	1061	3.4%	196057.79	177000.00	28500	2400000
O	576	1.9%	237546.37	196000.00	43000	1800000
P	22612	72.8%	257672.15	219000.00	1100	3400000
R	256	.8%	231518.23	206500.00	106000	800000
~	1	.0%	280000.00	280000.00	280000	280000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * POOL

1991 Descriptive Analysis.

SLDPRICE

POOL	N	% of Total N	Mean	Median	Minimum	Maximum
	174	.6%	292866.38	206000.00	11500	3740000
?	30	.1%	307972.43	251750.00	135000	990000
A	390	1.3%	213322.21	192000.00	118500	1730000
H	47	.2%	572969.15	425000.00	162000	2700000
I	1693	5.5%	332728.89	275000.00	1100	2475000
N	28724	92.5%	247984.04	215500.00	1150	3400000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * TYPE

1991 Descriptive Analysis.

SLDPRICE

TYPE	N	% of Total N	Mean	Median	Minimum	Maximum
	3	.0%	326600.00	277500.00	267300	435000
1	1	.0%	359000.00	359000.00	359000	359000
9	1	.0%	215000.00	215000.00	215000	215000
A	1034	3.3%	197024.41	179650.00	54900	920000
B	31	.1%	150677.42	97000.00	11500	775000
D	21724	69.9%	273330.51	235000.00	1100	3400000
E	1	.0%	147000.00	147000.00	147000	147000
F	2	.0%	355000.00	355000.00	210000	500000
G	5	.0%	197400.00	225000.00	75000	260000
J	1	.0%	219000.00	219000.00	219000	219000
K	5	.0%	162070.00	163000.00	135000	175000
L	1787	5.8%	205017.92	205000.00	115000	355000
M	38	.1%	401789.45	382500.00	144000	1050000
O	299	1.0%	312546.32	247000.00	16000	2375000
R	5	.0%	579400.00	530000.00	155000	1100000
S	6006	19.3%	196975.13	185000.00	1150	975000
V	113	.4%	288914.16	196000.00	36000	3740000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * BEACH

APPENDIX H: '1991 Descriptive Analysis.'

1991 Descriptive Analysis.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	26604	85.7%	258513.40	221000.00	1100	3740000
1	4454	14.3%	219655.48	195000.00	1150	1800000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * HWAY

1991 Descriptive Analysis.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	17160	55.3%	254936.60	219000.00	1150	3740000
1	13898	44.7%	250540.70	216850.00	1100	2475000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * SUBWAY

1991 Descriptive Analysis.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	24029	77.4%	244420.63	215000.00	1100	3740000
1	7029	22.6%	282194.26	229900.00	1150	2475000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * MALL

1991 Descriptive Analysis.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	17047	54.9%	247149.44	215000.00	1100	3740000
1	14011	45.1%	260050.70	220000.00	1150	3400000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * BEACH_1

1991 Descriptive Analysis.

SLDPRICE

BEACH_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	29174	93.9%	254919.01	219900.00	1100	3740000
1	1884	6.1%	222781.11	198000.00	40000	1630000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * HWAY_1

APPENDIX H: '1991 Descriptive Analysis.'

1991 Descriptive Analysis.

SLDPRICE

HWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	24820	79.9%	254193.14	218000.00	1100	3740000
1	6238	20.1%	248100.84	216000.00	1850	2100000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * SWAY_1

1991 Descriptive Analysis.

SLDPRICE

SWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	26247	84.5%	247271.17	216000.00	1100	3740000
1	4811	15.5%	284057.44	230000.00	1150	2475000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * MALL_25

1991 Descriptive Analysis.

SLDPRICE

MALL_25	N	% of Total N	Mean	Median	Minimum	Maximum
0	27742	89.3%	254871.48	218000.00	1100	3740000
1	3316	10.7%	237057.33	215000.00	1150	1900000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * BEACH_DO

1991 Descriptive Analysis.

SLDPRICE

BEACH_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	28488	91.7%	256150.31	220000.00	1100	3740000
1.00	2570	8.3%	217710.77	195000.00	1150	1800000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * HWAY_DO

1991 Descriptive Analysis.

SLDPRICE

HWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	23398	75.3%	253114.16	218000.00	1150	3740000
1.00	7660	24.7%	252527.63	217000.00	1100	2475000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * SWAY_DO

APPENDIX H: '1991 Descriptive Analysis.'

SLDPRICE * SWAY_DO

1991 Descriptive Analysis.

SLDPRICE

SWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	28840	92.9%	251032.72	217000.00	1100	3740000
1.00	2218	7.1%	278152.87	228650.00	42000	2100000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * MALL_DO

1991 Descriptive Analysis.

SLDPRICE

MALL_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	20363	65.6%	245505.99	215000.00	1100	3740000
1.00	10695	34.4%	267179.83	222500.00	1400	3400000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

SLDPRICE * MUNICIPAL

1991 Descriptive Analysis.

SLDPRICE

MUNICIPAL	N	% of Total N	Mean	Median	Minimum	Maximum
AJAX	1083	3.5%	183310.89	175000.00	60000	580000
AURORA	571	1.8%	258816.06	235000.00	140000	810000
BRAMPTON	1359	4.4%	191409.10	180000.00	28000	837500
BURLINGTON	20	.1%	266200.00	188000.00	135000	910000
CALEDON	24	.1%	305412.50	263500.00	150000	780000
E GWILL	26	.1%	265076.92	226000.00	112500	900000
EAST YORK	969	3.1%	221907.89	195000.00	24000	2375000
ETOBICOKE	1879	6.0%	265974.33	227000.00	70000	1375000
GEORGINA	30	.1%	176693.33	126000.00	70000	1240000
HALTON	2	.0%	192500.00	192500.00	190000	195000
KING	15	.0%	256226.67	250000.00	140500	385000
MARKHAM	2130	6.9%	289309.62	264000.00	60000	1600000
MILTON	5	.0%	183200.00	175000.00	170000	215000
MISS	4384	14.1%	229784.99	208000.00	1100	1450000
NEWCASTLE	3	.0%	171666.67	150000.00	140000	225000
NEWMARKET	820	2.6%	210636.78	200000.00	74000	530000
NORTH YORK	2884	9.3%	334841.03	267500.00	28000	3400000
OAKVILLE	222	.7%	274803.01	246750.00	122000	1630000
OSHAWA	185	.6%	140772.43	137000.00	54900	325000
PICKERING	1070	3.4%	207210.82	190000.00	60000	860000
R HILL	1253	4.0%	312588.00	280000.00	80000	2400000
SCARBORO	4490	14.5%	221156.45	208000.00	16000	1025000
TORONTO	4957	16.0%	281871.74	230000.00	1150	2475000
UXBRIDGE	89	.3%	262042.13	195000.00	36000	3740000
VAUGHAN	1106	3.6%	301910.78	269000.00	1150	1600000
WHIT/STOUF	86	.3%	287895.99	229000.00	60000	785000
WHITBY	379	1.2%	184377.55	174000.00	20000	480000
YORK	1017	3.3%	198050.90	180000.00	1400	1050000
Total	31058	100.0%	252969.50	218000.00	1100	3740000

APPENDIX I: '1992 Descriptive Analysis.'

Summarize

SLDPRICE * STYLE

1992 Descriptive Analysis.

SLDPRICE

STYLE	N	% of Total N	Mean	Median	Minimum	Maximum
	124	.4%	248036.13	182500.00	10000	1550000
0	226	.7%	275079.35	230000.00	6500	1200000
1	7036	22.1%	202340.46	185000.00	44000	2000000
2	18478	58.0%	245277.10	212000.00	1150	3800000
3	1626	5.1%	327166.49	250000.00	66300	2550000
4	1939	6.1%	203926.72	190000.00	92000	745000
5	921	2.9%	248449.34	230000.00	112000	895000
6	344	1.1%	250994.89	202500.00	110000	2475000
7	1007	3.2%	209998.22	189000.00	65000	1050000
A	2	.0%	171450.00	171450.00	170000	172900
B	6	.0%	181883.33	170850.00	141000	280000
C	3	.0%	178300.00	175000.00	165000	194900
D	2	.0%	536250.00	536250.00	272500	800000
E	5	.0%	224000.00	230000.00	140000	310000
H	1	.0%	212900.00	212900.00	212900	212900
K	11	.0%	192018.18	181500.00	153500	237800
L	1	.0%	62900.00	62900.00	62900	62900
M	72	.2%	237160.25	227000.00	145000	443000
~	26	.1%	205848.08	198500.00	95900	380000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * EXTER_1

1992 Descriptive Analysis.

SLDPRICE

EXTER_1	N	% of Total N	Mean	Median	Minimum	Maximum
	141	.4%	247870.07	195000.00	10000	1550000
5	1	.0%	355000.00	355000.00	355000	355000
A	1215	3.8%	166618.75	158000.00	60000	680000
B	28646	90.0%	237412.55	205900.00	1150	3800000
C	87	.3%	236010.92	187900.00	40000	1300000
F	435	1.4%	180165.32	168500.00	33000	480000
G	5	.0%	165200.00	175000.00	142000	180000
L	74	.2%	142618.92	133750.00	44000	412000
O	137	.4%	206035.31	163350.00	10000	1200000
P	430	1.4%	328866.32	227000.00	67200	2100000
S	352	1.1%	433486.96	318500.00	82000	3500000
V	86	.3%	165046.51	158750.00	82000	365000
W	219	.7%	206665.98	174500.00	24750	742500
~	4	.0%	397325.00	258650.00	157000	915000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * GARAGE

APPENDIX I: '1992 Descriptive Analysis.'

1992 Descriptive Analysis.

SLDPRICE

GARAGE	N	% of Total N	Mean	Median	Minimum	Maximum
	133	.4%	268411.13	210000.00	10000	1550000
8	7	.0%	215700.00	214000.00	154900	345000
A	67	.2%	264073.13	204000.00	98900	1000000
B	18	.1%	208167.67	186000.00	140000	350000
C	772	2.4%	192533.23	180700.00	1150	975000
D	9224	29.0%	285542.44	253850.00	1400	3500000
E	2	.0%	192950.00	192950.00	189900	198000
H	453	1.4%	215792.01	198000.00	105000	1025000
J	317	1.0%	214936.28	187000.00	24750	1900000
K	994	3.1%	223477.83	197500.00	107500	850000
L	385	1.2%	327141.83	280000.00	125000	1580000
M	78	.2%	649813.55	550000.00	125800	1900000
N	7316	23.0%	190550.98	171000.00	6500	3500000
O	338	1.1%	324019.23	220000.00	15000	3800000
P	68	.2%	313475.26	252500.00	138000	770700
R	61	.2%	334364.75	221000.00	108500	2475000
S	7327	23.0%	208969.53	185000.00	75000	1925000
T	202	.6%	582320.39	491000.00	155000	2000000
X	3001	9.4%	214490.64	189900.00	70000	1550000
Y	1008	3.2%	279308.48	219000.00	65000	2500000
Z	47	.1%	384859.32	305000.00	70000	1925000
~	18	.1%	295132.39	186000.00	139000	1415000
Total	31832	100.0%	236824.18	203000.00	1150	3800000

SLDPRICE * ROOMS

APPENDIX I: '1992 Descriptive Analysis.'

1992 Descriptive Analysis.

SLDPRICE

ROOMS	N	% of Total N	Mean	Median	Minimum	Maximum
0	188	.6%	284935.00	207500.00	6500	2475000
1	15	.0%	115283.33	70000.00	10000	457500
2	16	.1%	131031.25	88500.00	10000	500000
3	89	.3%	165341.57	144000.00	27000	548000
4	559	1.8%	150068.38	144000.00	45000	530000
5	2927	9.2%	177325.67	169900.00	65000	608203
6	11353	35.7%	195298.44	182000.00	1150	850000
7	6465	20.3%	221909.00	200000.00	60000	1200000
8	6246	19.6%	263951.79	244000.00	1400	1560000
9	2501	7.9%	342434.13	309000.00	1800	1887500
10	890	2.8%	434557.96	365000.00	105000	2200000
11	258	.8%	521418.69	387500.00	130000	3800000
12	119	.4%	569181.93	375000.00	140000	3500000
13	50	.2%	542022.00	363000.00	75000	2000000
14	36	.1%	525830.78	419500.00	177000	2000000
15	21	.1%	516023.81	292000.00	120000	3200000
16	22	.1%	533295.45	380500.00	237000	2500000
17	13	.0%	527769.23	320000.00	264000	2550000
18	8	.0%	573000.00	432500.00	270000	1475000
19	3	.0%	435000.00	370000.00	340000	595000
20	12	.0%	479750.00	425000.00	205000	1150000
21	1	.0%	820000.00	820000.00	820000	820000
22	6	.0%	341833.33	346500.00	225000	464000
23	1	.0%	300000.00	300000.00	300000	300000
24	6	.0%	419166.67	440000.00	225000	530000
25	1	.0%	410000.00	410000.00	410000	410000
26	2	.0%	597500.00	597500.00	460000	735000
28	4	.0%	1150000.00	370000.00	360000	3500000
29	4	.0%	531125.00	450000.00	389500	835000
30	5	.0%	445400.00	475000.00	300000	510000
31	1	.0%	440000.00	440000.00	440000	440000
34	1	.0%	525000.00	525000.00	525000	525000
40	2	.0%	820000.00	820000.00	440000	1200000
41	2	.0%	625000.00	625000.00	625000	625000
42	1	.0%	675000.00	675000.00	675000	675000
48	1	.0%	810000.00	810000.00	810000	810000
61	1	.0%	240000.00	240000.00	240000	240000
63	1	.0%	1125000.00	1125000.00	1125000	1125000
99	1	.0%	1175000.00	1175000.00	1175000	1175000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * BEDS

APPENDIX I: '1992 Descriptive Analysis.'

SLDPRICE * BEDS

1992 Descriptive Analysis.

SLDPRICE

BEDS	N	% of Total N	Mean	Median	Minimum	Maximum
0	214	.7%	273018.60	187500.00	6500	2475000
1	146	.5%	186995.64	141500.00	44000	3500000
2	3053	9.6%	181657.16	170000.00	1150	850000
3	17095	53.7%	206345.08	188000.00	62000	2000000
4	9777	30.7%	275090.03	245000.00	1400	2250000
5	1167	3.7%	421831.44	340000.00	90000	2425000
6	219	.7%	506451.06	340500.00	87500	3800000
7	64	.2%	479615.75	307500.00	145000	2550000
8	50	.2%	412817.76	342500.00	152000	1200000
9	47	.1%	423521.28	370000.00	75000	1200000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * NO_WASH

1992 Descriptive Analysis.

SLDPRICE

NO_WASH	N	% of Total N	Mean	Median	Minimum	Maximum
0	175	.5%	280929.31	195000.00	10000	2475000
1	4218	13.3%	178329.19	169900.00	10000	1200000
2	13426	42.2%	196585.32	184000.00	1150	1025000
3	10003	31.4%	249147.24	228000.00	1400	1300000
4	3269	10.3%	332725.66	290000.00	1800	2250000
5	470	1.5%	544926.47	494900.00	120000	2550000
6	171	.5%	716711.39	699000.00	75000	2100000
7	53	.2%	1006209.43	935000.00	180000	2500000
8	29	.1%	1077482.76	1055000.00	289000	3500000
9	18	.1%	1189111.11	772500.00	185000	3800000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

.SLDPRICE * KITCHEN

1992 Descriptive Analysis.

SLDPRICE

KITCHEN	N	% of Total N	Mean	Median	Minimum	Maximum
0	200	.6%	261377.90	178700.00	6500	2475000
1	25230	79.3%	241568.21	207500.00	1150	3800000
2	5560	17.5%	213015.13	190000.00	1450	3200000
3	656	2.1%	215181.39	187750.00	87000	1900000
4	106	.3%	287384.62	244500.00	135000	1200000
5	28	.1%	273446.43	248000.00	151000	595000
6	30	.1%	399166.67	380000.00	163500	625000
7	9	.0%	385555.56	315000.00	75000	835000
8	8	.0%	525875.00	516000.00	340000	726000
9	5	.0%	377000.00	287500.00	205000	810000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * FIRE

APPENDIX I: '1992 Descriptive Analysis.'

1992 Descriptive Analysis.

SLDPRICE

FIRE	N	% of Total N	Mean	Median	Minimum	Maximum
	142	.4%	260487.18	198500.00	10000	2475000
2	5	.0%	277600.00	287500.00	191500	380000
G	1	.0%	197000.00	197000.00	197000	197000
M	2815	8.8%	419902.80	342000.00	100000	3800000
N	11899	37.4%	179979.86	172000.00	1150	1310000
O	1031	3.2%	198418.48	183000.00	45000	1200000
P	1	.0%	240000.00	240000.00	240000	240000
R	70	.2%	192877.14	182750.00	135000	288900
S	9	.0%	174944.44	175000.00	140000	225000
Y	15840	49.8%	249102.18	225000.00	1400	2250000
~	19	.1%	230347.42	238000.00	82600	400000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * FAM_ROOM

1992 Descriptive Analysis.

SLDPRICE

FAM_ROOM	N	% of Total N	Mean	Median	Minimum	Maximum
	146	.5%	259503.97	198500.00	10000	2475000
A	12361	38.8%	293356.41	247500.00	1400	3800000
N	19205	60.3%	199891.54	180500.00	1150	1392000
~	120	.4%	243646.46	206250.00	25000	1000000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * HEAT

1992 Descriptive Analysis.

SLDPRICE

HEAT	N	% of Total N	Mean	Median	Minimum	Maximum
	146	.5%	250830.00	195000.00	10000	1550000
0	162	.5%	246056.25	180000.00	6500	1465000
1	919	2.9%	266821.10	232750.00	22000	3500000
2	2181	6.9%	215076.28	188000.00	15000	1700000
3	1760	5.5%	319760.05	264000.00	10000	3500000
4	24949	78.4%	231774.86	202000.00	1150	3800000
5	985	3.1%	199955.01	175000.00	28000	835000
6	597	1.9%	273966.14	220000.00	33000	2425000
7	53	.2%	269226.42	264000.00	82600	530000
8	60	.2%	263866.67	227500.00	115000	1000000
B	1	.0%	675000.00	675000.00	675000	675000
O	2	.0%	670000.00	670000.00	670000	670000
W	3	.0%	86250.00	45000.00	24750	189000
~	14	.0%	231200.00	224250.00	132000	415000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * CAC

APPENDIX I: '1992 Descriptive Analysis.'

1992 Descriptive Analysis.

SLDPRICE

CAC	N	% of Total N	Mean	Median	Minimum	Maximum
	137	.4%	259058.98	199000.00	10000	2475000
H	1	.0%	207000.00	207000.00	207000	207000
N	15003	47.1%	206040.77	183000.00	10000	2550000
R	4	.0%	309250.00	283500.00	227000	443000
Y	16669	52.4%	262143.59	222000.00	1150	3800000
~	18	.1%	243261.11	192750.00	123800	650000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * PARK_CAP

1992 Descriptive Analysis.

SLDPRICE

PARK_CAP	N	% of Total N	Mean	Median	Minimum	Maximum
0	7334	23.4%	190807.64	171000.00	6500	3500000
1	12934	41.2%	210240.60	188000.00	1150	2475000
2	10768	34.3%	286360.67	250000.00	1400	3500000
3	325	1.0%	569547.50	470000.00	70000	2000000
Total	31361	100.0%	235555.94	203000.00	1150	3500000

SLDPRICE * BASEMENT

1992 Descriptive Analysis.

SLDPRICE

BASEMENT	N	% of Total N	Mean	Median	Minimum	Maximum
	139	.4%	267821.44	210000.00	10000	2475000
A	2636	8.3%	203091.63	185000.00	80000	1415000
C	99	.3%	170613.64	140000.00	62000	495000
D	227	.7%	198486.34	170000.00	60000	1100000
F	15676	49.2%	245936.58	204000.00	1150	3800000
H	49	.2%	208121.43	191000.00	88000	610000
L	585	1.8%	222018.37	210000.00	65000	837500
N	286	.9%	206205.94	160000.00	15000	2250000
O	352	1.1%	252046.21	215000.00	10000	1200000
P	4632	14.6%	234875.48	202000.00	1800	3500000
S	3	.0%	171000.00	160000.00	156000	197000
U	7132	22.4%	233022.87	215000.00	1400	2550000
W	2	.0%	226250.00	226250.00	215000	237500
~	14	.0%	270964.29	193500.00	82600	1100000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * DRIVE

APPENDIX I: '1992 Descriptive Analysis.'

1992 Descriptive Analysis.

SLDPRICE

DRIVE	N	% of Total N	Mean	Median	Minimum	Maximum
	125	.4%	271541.44	210000.00	10000	1550000
?	16	.1%	242750.00	183500.00	134000	720000
C	2	.0%	2217500.00	2217500.00	935000	3500000
D	2872	9.0%	248446.68	225000.00	1800	1900000
F	197	.6%	221086.04	189000.00	33000	610000
L	1842	5.8%	203004.20	186000.00	62000	1150000
M	2161	6.8%	218431.96	191500.00	56000	1100000
N	1076	3.4%	179121.38	160850.00	6500	1200000
O	265	.8%	229667.73	194000.00	10000	1310000
P	22999	72.3%	242248.32	205000.00	1150	3800000
R	274	.9%	222936.31	186500.00	88500	1276000
Y	3	.0%	232666.67	255000.00	123000	320000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * POOL

1992 Descriptive Analysis.

SLDPRICE

POOL	N	% of Total N	Mean	Median	Minimum	Maximum
	145	.5%	252939.17	199000.00	10000	1550000
?	22	.1%	331222.73	236250.00	165000	830000
A	415	1.3%	199015.78	183000.00	100000	1925000
H	41	.1%	579497.54	390000.00	170000	1900000
I	1789	5.6%	317607.66	256500.00	115000	3800000
N	29418	92.4%	231610.64	200000.00	1150	3500000
~	2	.0%	92500.00	92500.00	25000	160000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * TYPE

1992 Descriptive Analysis.

SLDPRICE

TYPE	N	% of Total N	Mean	Median	Minimum	Maximum
A	1255	3.9%	178467.06	165000.00	62000	700000
B	27	.1%	165759.26	70000.00	10000	670000
D	22151	69.6%	256522.93	220000.00	1400	3800000
F	1	.0%	480000.00	480000.00	480000	480000
G	5	.0%	139000.00	164000.00	45000	210000
L	1705	5.4%	194322.44	190000.00	110000	333000
M	43	.1%	358197.67	350000.00	84000	1310000
O	305	1.0%	322724.20	244000.00	6500	3500000
R	14	.0%	276464.29	257500.00	124500	385000
S	6235	19.6%	184699.72	172000.00	1150	1276000
V	90	.3%	203516.67	151250.00	40000	1050000
X	1	.0%	165000.00	165000.00	165000	165000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * BEACH

APPENDIX I: '1992 Descriptive Analysis.'

1992 Descriptive Analysis.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	27198	85.4%	242708.12	208000.00	1150	3800000
1	4634	14.6%	200916.15	180000.00	10000	2000000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * HWAY

1992 Descriptive Analysis.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	17563	55.2%	238453.78	205000.00	1150	3800000
1	14269	44.8%	234372.21	202000.00	1400	3500000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * SUBWAY

1992 Descriptive Analysis.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	24368	76.6%	227664.51	200000.00	1400	3800000
1	7464	23.4%	265875.16	215000.00	1150	3500000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * MALL

1992 Descriptive Analysis.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	17079	53.7%	231063.93	201500.00	1150	3800000
1	14753	46.3%	243061.08	205000.00	1400	3500000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * BEACH_1

1992 Descriptive Analysis.

SLDPRICE

BEACH_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	29829	93.7%	238897.84	205000.00	1150	3800000
1	2003	6.3%	205742.82	184000.00	44000	1050000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * HWAY_1

APPENDIX I: '1992 Descriptive Analysis.'

1992 Descriptive Analysis.

SLDPRICE

HWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	25558	80.3%	237968.64	203000.00	1150	3800000
1	6274	19.7%	231147.32	204000.00	55000	3500000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * SWAY_1

1992 Descriptive Analysis.

SLDPRICE

SWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	26748	84.0%	230906.53	201000.00	1150	3800000
1	5084	16.0%	266705.92	215000.00	6500	3500000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * MALL_25

1992 Descriptive Analysis.

SLDPRICE

MALL_25	N	% of Total N	Mean	Median	Minimum	Maximum
0	28351	89.1%	238559.92	204000.00	1150	3800000
1	3481	10.9%	220858.51	200000.00	40000	2550000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * BEACH_DO

1992 Descriptive Analysis.

SLDPRICE

BEACH_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	29201	91.7%	240172.54	205100.00	1150	3800000
1.00	2631	8.3%	197241.57	178000.00	10000	2000000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * HWAY_DO

1992 Descriptive Analysis.

SLDPRICE

HWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	23837	74.9%	236530.69	205000.00	1150	3800000
1.00	7995	25.1%	236902.92	200000.00	1400	3200000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * SWAY_DO

APPENDIX I: '1992 Descriptive Analysis.'

1992 Descriptive Analysis.

SLDPRICE

SWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	29452	92.5%	234403.83	202900.00	1400	3800000
1.00	2380	7.5%	264100.54	210000.00	1150	2500000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * MALL_DO

1992 Descriptive Analysis.

SLDPRICE

MALL_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	20560	64.6%	229336.05	200000.00	1150	3800000
1.00	11272	35.4%	249917.64	207000.00	1400	3500000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

SLDPRICE * MUNICIPAL

1992 Descriptive Analysis.

SLDPRICE

MUNICIPAL	N	% of Total N	Mean	Median	Minimum	Maximum
AJAX	1065	3.4%	174588.58	167000.00	33000	315000
AURORA	495	1.6%	243671.31	222500.00	116500	880000
BRAMPTON	1858	5.8%	183640.83	170000.00	20500	1200000
BURLINGTON	10	.0%	266190.00	157750.00	147500	1050000
CALEDON	26	.1%	267653.85	255500.00	130000	520000
E GWILL	28	.1%	240566.96	181500.00	60000	1550000
EAST YORK	1059	3.3%	213691.32	190000.00	10000	725000
ETOBICOKE	1860	5.8%	246680.98	212000.00	15000	1550000
GEORGINA	33	.1%	131872.73	127500.00	40000	257500
KING	9	.0%	260166.67	310000.00	65000	420000
MARKHAM	1863	5.9%	280153.17	255000.00	85000	2200000
MILTON	8	.0%	182687.50	179000.00	158000	230000
MISS	4238	13.3%	217451.36	197000.00	1400	1300000
NEWCASTLE	6	.0%	160166.67	147500.00	80000	300000
NEWMARKET	750	2.4%	200567.77	190000.00	1800	443000
NORTH YORK	2874	9.0%	314294.55	250000.00	75000	3800000
OAKVILLE	206	.6%	241545.63	239450.00	123000	559000
OSHAWA	382	1.2%	134536.04	130000.00	65300	380000
PICKERING	1054	3.3%	195107.07	184950.00	65000	470000
R HILL	1060	3.3%	314787.91	289000.00	82600	1800000
SCARBORO	4621	14.5%	206368.42	190000.00	10000	842000
TORONTO	5298	16.6%	265696.29	215000.00	1150	3500000
UXBRIDGE	97	.3%	205410.31	199000.00	94000	378000
VAUGHAN	1096	3.4%	290234.67	260000.00	1450	3200000
WHIT/STOUF	65	.2%	232215.38	210000.00	79000	590000
WHITBY	507	1.6%	182859.59	172000.00	115000	720000
YORK	1243	3.9%	181271.68	163000.00	10000	1500000
Total	31832	100.0%	236624.18	203000.00	1150	3800000

APPENDIX J: '1993 Descriptive Analysis.'

Summarize

SLDPRICE * STYLE

1993 Descriptive Analysis.

SLDPRICE

STYLE	N	% of Total N	Mean	Median	Minimum	Maximum
	137	.5%	222502.19	165000.00	28000	1325000
0	139	.5%	260521.22	221000.00	15000	1400000
1	6169	21.5%	195702.66	178500.00	1100	1500000
2	16204	56.6%	239749.79	206000.00	1150	3248000
3	1270	4.4%	344353.65	255000.00	60500	3500000
4	801	2.8%	199612.70	180000.00	1275	675000
5	456	1.6%	247108.44	225000.00	125100	1750000
6	224	.8%	249616.20	197100.00	88000	1500000
7	940	3.3%	196758.35	175000.00	55000	1050000
A	236	.8%	176900.43	169995.00	97000	355000
B	583	2.0%	202177.22	186000.00	75000	595000
C	295	1.0%	199343.91	187000.00	1150	488000
D	147	.5%	212250.34	203000.00	75000	571000
E	278	1.0%	250043.35	230000.00	127500	760000
F	46	.2%	225013.04	220000.00	146000	372000
H	25	.1%	249702.00	223500.00	142000	725000
K	419	1.5%	196831.28	189000.00	97000	732000
M	285	1.0%	272165.41	225000.00	77000	1225000
Total	28654	100.0%	230624.20	196000.00	1100	3500000

SLDPRICE * EXTER_1

1993 Descriptive Analysis.

SLDPRICE

EXTER_1	N	% of Total N	Mean	Median	Minimum	Maximum
	150	.5%	219561.33	163200.00	28000	1325000
A	1006	3.5%	155114.41	145000.00	55000	1500000
B	25689	89.7%	231291.23	200000.00	1100	2850000
C	62	.2%	205264.84	161000.00	50000	920000
F	378	1.3%	176443.57	160550.00	35000	850000
G	6	.0%	113416.67	97000.00	57500	183000
L	84	.3%	119138.69	112200.00	45000	313000
M	5	.0%	156299.80	152000.00	114500	199999
O	146	.5%	206283.90	154950.00	15000	1050000
P	416	1.5%	343470.55	225000.00	70000	3500000
S	343	1.2%	407722.67	310000.00	68000	2100000
V	125	.4%	168746.80	140000.00	65000	1270000
W	243	.8%	216699.13	173000.00	55000	1500000
~	1	.0%	193000.00	193000.00	193000	193000
Total	28654	100.0%	230624.20	196000.00	1100	3500000

SLDPRICE * GARAGE

APPENDIX J: '1993 Descriptive Analysis.'

1993 Descriptive Analysis.

SLDPRICE

GARAGE	N	% of Total N	Mean	Median	Minimum	Maximum
	151	.5%	218601.32	168000.00	28000	1175000
2	33	.1%	357921.21	280000.00	160000	1550000
3	9	.0%	576166.67	185000.00	137000	3248000
4	22	.1%	311950.00	220500.00	155000	753000
5	75	.3%	211334.67	181500.00	130000	850000
6	2	.0%	1460000.00	1460000.00	1250000	1670000
7	2	.0%	400000.00	400000.00	375000	425000
8	141	.5%	190023.23	184000.00	145000	387500
A	56	.2%	260446.43	223500.00	120000	915000
B	25	.1%	242000.00	174500.00	132000	1175000
C	712	2.5%	189775.41	175000.00	83000	1050000
D	8272	28.9%	280875.56	248000.00	1400	1975000
E	30	.1%	181906.67	178250.00	109000	385000
H	360	1.3%	218544.67	199000.00	138000	1150000
J	277	1.0%	203461.97	175000.00	71700	1270000
K	1050	3.7%	217061.91	191000.00	65000	760000
L	403	1.4%	338972.62	269000.00	1250	3500000
M	40	.1%	508097.20	442500.00	125000	1690000
N	6413	22.4%	181372.19	163000.00	1100	2750000
O	259	.9%	267141.63	200000.00	10000	2850000
P	61	.2%	355565.57	270000.00	117000	1320000
Q	11	.0%	238863.64	201500.00	154000	448000
R	63	.2%	282174.60	229700.00	153000	895000
S	6205	21.7%	200906.43	180000.00	1150	1250000
T	260	.9%	554906.38	485000.00	154500	2275000
X	2739	9.6%	203887.70	179000.00	55000	1100000
Y	943	3.3%	276928.15	206000.00	74000	2300000
Z	37	.1%	408139.19	300000.00	125000	1680000
~	3	.0%	183333.33	145000.00	145000	260000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * ROOMS

APPENDIX J: '1993 Descriptive Analysis.'

SLDPRICE * ROOMS

1993 Descriptive Analysis.

SLDPRICE

ROOMS	N	% of Total N	Mean	Median	Minimum	Maximum
0	198	.7%	240631.82	180000.00	15000	1400000
1	9	.0%	135222.22	95000.00	10000	280000
2	23	.1%	118278.26	91000.00	28000	250000
3	93	.3%	149777.20	124000.00	21900	520000
4	624	2.2%	143263.13	135000.00	20000	1000000
5	2779	9.7%	169848.28	162000.00	57000	810000
6	9802	34.2%	188849.14	175000.00	1100	1250000
7	5642	19.7%	215491.03	192500.00	1300	1750000
8	5589	19.5%	258783.56	235000.00	1150	2300000
9	2360	8.2%	329712.94	294500.00	79000	1389000
10	936	3.3%	428553.01	362500.00	65000	1935000
11	268	.9%	483844.83	379000.00	148500	1690000
12	130	.5%	503530.58	367500.00	120000	2850000
13	66	.2%	595496.95	440000.00	132900	3248000
14	34	.1%	436470.59	281200.00	137500	1750000
15	25	.1%	569940.00	320000.00	205000	3500000
16	14	.0%	372000.00	348500.00	225000	703000
17	14	.0%	532857.14	354500.00	185000	2100000
18	10	.0%	722300.00	542000.00	230000	2750000
19	3	.0%	369666.67	345000.00	289000	475000
20	8	.0%	586812.50	461250.00	220000	1225000
21	5	.0%	501800.00	500000.00	320000	807000
22	4	.0%	413750.00	355000.00	320000	625000
23	2	.0%	359000.00	359000.00	353000	365000
24	4	.0%	527787.50	509075.00	375000	718000
25	2	.0%	707500.00	707500.00	515000	900000
28	1	.0%	230000.00	230000.00	230000	230000
30	3	.0%	514166.67	515000.00	305000	722500
34	3	.0%	458333.33	490000.00	360000	525000
47	1	.0%	425000.00	425000.00	425000	425000
48	1	.0%	490000.00	490000.00	490000	490000
59	1	.0%	698000.00	698000.00	698000	698000
61	2	.0%	292500.00	292500.00	285000	300000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * BEDS

1993 Descriptive Analysis.

SLDPRICE

BEDS	N	% of Total N	Mean	Median	Minimum	Maximum
0	228	.8%	235311.40	181000.00	10000	1400000
1	197	.7%	137686.83	121000.00	63000	810000
2	2831	9.9%	173792.31	161000.00	45000	1000000
3	15017	52.4%	199587.24	180000.00	1100	2300000
4	8858	30.9%	268599.11	239000.00	1150	1608000
5	1177	4.1%	414903.31	350000.00	55000	2275000
6	198	.7%	458959.42	290475.00	85000	2850000
7	58	.2%	674137.93	328500.00	65000	3500000
8	51	.2%	410133.33	335900.00	137500	2100000
9	39	.1%	508715.38	380000.00	95000	2750000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * NO_WASH

APPENDIX J: '1993 Descriptive Analysis.'

1993 Descriptive Analysis.

SLDPRICE

NO_WASH	N	% of Total N	Mean	Median	Minimum	Maximum
0	186	.6%	242250.54	170500.00	15000	1400000
1	3704	12.9%	168822.86	160000.00	1400	810000
2	12032	42.0%	191137.93	178850.00	1100	740000
3	8828	30.8%	243514.72	223000.00	1325	1210000
4	3182	11.1%	330034.97	286400.00	1400	1750000
5	494	1.7%	531337.32	485250.00	45000	2850000
6	138	.5%	689465.20	640000.00	169000	3248000
7	48	.2%	978562.50	868500.00	323000	2100000
8	17	.1%	1028970.59	902000.00	204000	2750000
9	25	.1%	942168.00	525000.00	200000	3500000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * KITCHEN

1993 Descriptive Analysis.

SLDPRICE

KITCHEN	N	% of Total N	Mean	Median	Minimum	Maximum
0	212	.7%	247806.60	184500.00	15000	1400000
1	22597	78.9%	235207.58	201000.00	1150	3500000
2	5134	17.9%	209868.28	183000.00	1100	2750000
3	558	1.9%	211862.87	185000.00	1400	1325000
4	91	.3%	272889.01	240000.00	112000	807000
5	25	.1%	300700.00	265000.00	180000	497000
6	19	.1%	340681.58	337000.00	169000	625000
7	3	.0%	528333.33	555000.00	380000	650000
8	2	.0%	437000.00	437000.00	151500	722500
9	13	.0%	372780.77	320000.00	95000	900000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * FIRE

1993 Descriptive Analysis.

SLDPRICE

FIRE	N	% of Total N	Mean	Median	Minimum	Maximum
	159	.6%	223926.42	168500.00	37000	1325000
M	2867	10.0%	404389.24	329000.00	121000	3500000
N	10443	36.4%	171123.93	165000.00	1100	1400000
O	962	3.4%	183518.74	173000.00	50000	550000
R	94	.3%	195945.74	182900.00	89000	382500
Y	14103	49.2%	242957.03	220000.00	1150	1750000
_	6	.0%	202166.67	222000.00	140000	235000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * FAM_ROOM

APPENDIX J: '1993 Descriptive Analysis.'

1993 Descriptive Analysis.

SLDPRICE

FAM_ROOM	N	% of Total N	Mean	Median	Minimum	Maximum
	163	.6%	224259.51	175000.00	37000	1325000
A	11356	39.6%	288585.71	241000.00	1150	3500000
N	17099	59.7%	192226.96	174000.00	1100	1690000
~	36	.1%	212466.33	202900.00	77000	420000
Total	28654	100.0%	230624.20	196000.00	1100	3500000

SLDPRICE * HEAT

1993 Descriptive Analysis.

SLDPRICE

HEAT	N	% of Total N	Mean	Median	Minimum	Maximum
	148	.5%	218477.70	164450.00	28000	1325000
0	186	.6%	290659.61	180750.00	15000	1750000
1	761	2.7%	261178.22	222000.00	70000	1865000
2	2038	7.1%	202776.51	178000.00	60000	1105000
3	1707	6.0%	305462.45	250000.00	35000	2750000
4	22305	77.8%	226373.51	195000.00	1100	3500000
5	913	3.2%	189339.92	169900.00	15000	1000000
6	482	1.7%	274392.21	225000.00	73000	2300000
7	53	.2%	330626.42	268000.00	112000	1750000
8	56	.2%	282953.57	261750.00	135000	685000
W	3	.0%	83000.00	79000.00	66000	104000
~	2	.0%	232750.00	232750.00	175500	290000
Total	28654	100.0%	230624.20	196000.00	1100	3500000

SLDPRICE * CAC

1993 Descriptive Analysis.

SLDPRICE

CAC	N	% of Total N	Mean	Median	Minimum	Maximum
	157	.5%	224122.29	168000.00	37000	1325000
N	12803	44.7%	199950.75	175000.00	1150	2100000
Y	15689	54.8%	255636.69	215000.00	1100	3500000
~	5	.0%	493000.00	339000.00	180000	865000
Total	28654	100.0%	230624.20	196000.00	1100	3500000

SLDPRICE * PARK_CAP

1993 Descriptive Analysis.

SLDPRICE

PARK_CAP	N	% of Total N	Mean	Median	Minimum	Maximum
0	6416	22.7%	181373.11	163000.00	1100	2750000
1	11588	41.0%	203297.41	180000.00	1150	1270000
2	9760	34.6%	283143.07	245000.00	1250	3500000
3	337	1.2%	533236.49	458000.00	125000	2275000
4	64	.2%	372809.38	232000.00	137000	3248000
5	79	.3%	247722.78	184500.00	130000	1670000
Total	28244	100.0%	230353.60	196000.00	1100	3500000

SLDPRICE * BASEMENT

APPENDIX J: '1993 Descriptive Analysis.'

1993 Descriptive Analysis.

SLDPRICE

BASEMENT	N	% of Total N	Mean	Median	Minimum	Maximum
	159	.6%	220240.25	165000.00	37000	1325000
A	2378	8.3%	195524.79	179000.00	1100	1175000
C	95	.3%	161707.89	147500.00	55000	477000
D	220	.8%	215465.96	175000.00	55000	1475000
F	14115	49.3%	240612.17	198000.00	1150	3500000
H	51	.2%	211760.78	167000.00	50000	1350000
K	14	.0%	300628.57	241500.00	65000	810000
L	728	2.5%	202163.23	190000.00	35000	932500
N	274	1.0%	212861.65	155000.00	15000	3248000
O	139	.5%	261553.96	210000.00	10000	1500000
P	4141	14.5%	226863.18	192000.00	1400	2850000
S	67	.2%	206228.57	175000.00	110000	995000
U	6034	21.1%	227583.58	210000.00	45000	1275000
W	236	.8%	264907.73	225000.00	112000	850000
~	3	.0%	163666.67	89000.00	77000	325000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * DRIVE

1993 Descriptive Analysis.

SLDPRICE

DRIVE	N	% of Total N	Mean	Median	Minimum	Maximum
	146	.5%	219707.53	173750.00	28000	1175000
?	2	.0%	253750.00	253750.00	187500	320000
C	105	.4%	509423.10	420000.00	105000	1850000
D	3396	11.9%	247406.33	220000.00	63000	1606000
F	109	.4%	199443.01	172500.00	28000	465000
L	1699	5.9%	196800.32	175000.00	45000	1250000
M	1748	6.1%	203363.93	178750.00	1400	725000
N	927	3.2%	167756.24	150000.00	21900	875000
O	181	.6%	216875.41	170000.00	1400	1500000
P	19943	69.6%	234843.67	197000.00	1100	3500000
R	258	.9%	235107.15	195387.50	85000	2300000
Y	138	.5%	225015.22	210000.00	84000	585000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * POOL

1993 Descriptive Analysis.

SLDPRICE

POOL	N	% of Total N	Mean	Median	Minimum	Maximum
	155	.5%	224092.26	172500.00	37000	1325000
?	7	.0%	193714.29	149000.00	77000	360000
A	357	1.2%	191628.82	177500.00	96500	950000
H	53	.2%	594302.36	425000.00	175000	3248000
I	1762	6.1%	318612.80	248944.00	80000	3500000
N	26320	91.9%	224578.65	193900.00	1100	2750000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * TYPE

APPENDIX J: '1993 Descriptive Analysis.'

1993 Descriptive Analysis.

SLDPRICE

TYPE	N	% of Total N	Mean	Median	Minimum	Maximum
A	1028	3.6%	174118.86	158700.00	1325	685000
B	23	.1%	155926.09	56000.00	10000	1135000
D	20350	71.0%	250391.31	215000.00	1100	3500000
F	6	.0%	296983.33	220000.00	143900	515000
G	4	.0%	169625.00	91250.00	66000	430000
J	27	.1%	274833.33	272000.00	114500	500000
K	7	.0%	278750.00	230000.00	75000	560000
L	1262	4.4%	185725.90	182000.00	97000	320000
M	21	.1%	291314.29	230000.00	133000	722500
N	3	.0%	355166.67	375000.00	268000	422500
O	241	.8%	293867.43	240000.00	28000	1400000
R	20	.1%	292475.00	265000.00	165000	550000
S	5502	19.2%	175736.97	165000.00	1150	875000
V	129	.5%	202696.12	160000.00	15000	1325000
X	1	.0%	312500.00	312500.00	312500	312500
Y	30	.1%	227065.00	201250.00	100000	650000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * BEACH

1993 Descriptive Analysis.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	24631	86.0%	236265.85	201000.00	1100	3500000
1	4023	14.0%	196082.88	173000.00	1325	1475000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * HWAY

1993 Descriptive Analysis.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	15671	54.7%	234224.81	198000.00	1100	3500000
1	12983	45.3%	226278.11	195000.00	1250	2750000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * SUBWAY

1993 Descriptive Analysis.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	22107	77.2%	222718.86	194800.00	1150	3248000
1	6547	22.8%	257317.82	208000.00	1100	3500000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * MALL

APPENDIX J: '1993 Descriptive Analysis.'

1993 Descriptive Analysis.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	15432	53.9%	225995.39	195000.00	1150	3248000
1	13222	46.1%	236026.69	198000.00	1100	3500000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * BEACH_1

1993 Descriptive Analysis.

SLDPRICE

BEACH_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	26925	94.0%	232518.30	198000.00	1100	3500000
1	1729	6.0%	201128.11	175000.00	1325	1475000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * HWAY_1

1993 Descriptive Analysis.

SLDPRICE

HWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	22992	80.2%	232186.71	197000.00	1100	3500000
1	5662	19.8%	224279.20	195000.00	1250	1670000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * SWAY_1

1993 Descriptive Analysis.

SLDPRICE

SWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	24143	84.3%	225280.44	195000.00	1150	3248000
1	4511	15.7%	259224.13	210000.00	1100	3500000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * MALL_25

1993 Descriptive Analysis.

SLDPRICE

MALL_25	N	% of Total N	Mean	Median	Minimum	Maximum
0	25414	88.7%	233014.59	197000.00	1100	3500000
1	3240	11.3%	211874.35	190750.00	45000	1400000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * BEACH_DO

APPENDIX J: '1993 Descriptive Analysis.'

1993 Descriptive Analysis.

SLDPRICE

BEACH_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	26360	92.0%	233961.11	200000.00	1100	3500000
1.00	2294	8.0%	192280.26	171000.00	45000	1000000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * HWAY_DO

1993 Descriptive Analysis.

SLDPRICE

HWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	21333	74.5%	231585.14	197000.00	1100	3500000
1.00	7321	25.5%	227824.08	195000.00	1325	2750000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * SWAY_DO

1993 Descriptive Analysis.

SLDPRICE

SWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	26618	92.9%	228905.48	195500.00	1100	3500000
1.00	2036	7.1%	253094.17	200000.00	30000	2100000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * MALL_DO

1993 Descriptive Analysis.

SLDPRICE

MALL_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	18672	65.2%	223545.08	195000.00	1150	3248000
1.00	9982	34.8%	243868.16	200000.00	1100	3500000
Total	28654	100.0%	230624.20	198000.00	1100	3500000

SLDPRICE * MUNICIPAL

APPENDIX J: '1993 Descriptive Analysis.'

1993 Descriptive Analysis.

SLDPRICE

MUNICIPAL	N	% of Total N	Mean	Median	Minimum	Maximum
AJAX	805	2.8%	171653.70	165000.00	67500	758000
AURORA	397	1.4%	251198.85	227000.00	90000	940000
BRAMPTON	1795	6.3%	179544.39	167000.00	1150	1175000
BURLINGTON	5	.0%	151800.00	142000.00	131000	185000
CALEDON	45	.2%	268842.22	250000.00	160000	489000
E GWILL	36	.1%	208358.33	177950.00	90000	420000
EAST YORK	878	3.1%	203728.58	180000.00	1400	1015000
ETOBICOKE	1806	6.3%	239771.89	208000.00	35000	950000
GEORGINA	37	.1%	154862.16	113000.00	28000	1275000
KING	20	.1%	279800.00	243000.00	87500	825000
MARKHAM	1639	5.7%	277528.16	257000.00	30000	1690000
MILTON	5	.0%	191800.00	192500.00	145000	250000
MISS	3740	13.1%	213907.92	192500.00	1150	1580000
NEWCASTLE	15	.1%	148253.33	139900.00	87000	217000
NEWMARKET	682	2.4%	198813.27	191000.00	80000	475000
NORTH YORK	2823	9.9%	306255.09	240000.00	20000	3248000
OAKVILLE	272	.9%	247556.25	232250.00	1250	1475000
OSHAWA	607	2.1%	126217.58	121000.00	45000	342000
PICKERING	887	3.1%	190343.00	179900.00	60000	600000
R HILL	967	3.4%	303799.37	270000.00	15000	1250000
SCARBORO	3701	12.9%	197600.15	182000.00	1100	1135000
TORONTO	4678	16.3%	259231.51	209000.00	1400	3500000
UXBRIDGE	95	.3%	195064.21	178500.00	65000	400000
VAUGHAN	965	3.4%	282346.31	255000.00	90000	2275000
WHIT/STOUF	92	.3%	273579.47	237500.00	63000	760000
WHITBY	536	1.9%	173516.61	164950.00	95500	336800
YORK	1126	3.9%	165792.31	152500.00	30000	1150000
Total	28654	100.0%	230624.20	196000.00	1100	3500000

APPENDIX K: '1994 Descriptive Analysis.'

Summarize

SLDPRICE * STYLE

1994 Descriptive Analysis.

SLDPRICE

STYLE	N	% of Total N	Mean	Median	Minimum	Maximum
	189	.6%	222578.86	168800.00	11000	1300000
0	132	.4%	372000.38	227250.00	10000	14450000
1	6448	20.7%	198976.28	180800.00	1300	2980000
2	17931	57.4%	244594.67	211888.00	1195	2800000
3	1243	4.0%	358387.48	265000.00	93500	3460000
4	723	2.3%	205257.47	188000.00	105000	1100000
5	380	1.2%	248503.82	225000.00	115000	1250000
6	204	.7%	244801.31	195750.00	132000	1200000
7	1053	3.4%	202616.69	180000.00	72000	820000
A	304	1.0%	183288.53	168000.00	97000	550000
B	611	2.0%	210970.62	192000.00	94000	718000
C	371	1.2%	208904.33	197500.00	95000	545000
D	184	.6%	215799.83	204500.00	91000	634000
E	364	1.2%	253333.34	232500.00	132000	965000
F	49	.2%	231481.63	202000.00	145000	435000
H	24	.1%	240100.00	205000.00	123000	605000
K	598	1.9%	205867.44	192000.00	98900	1190000
M	399	1.3%	288878.92	230000.00	60000	1200000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * EXTER_1

1994 Descriptive Analysis.

SLDPRICE

EXTER_1	N	% of Total N	Mean	Median	Minimum	Maximum
	199	.6%	232681.06	169000.00	11000	1800000
A	1107	3.5%	164322.88	152000.00	45000	785000
B	28036	89.8%	235579.45	205000.00	1195	14450000
C	63	.2%	220260.71	170000.00	55000	850000
F	365	1.2%	177405.48	159000.00	38000	1200000
G	12	.0%	186416.67	164500.00	97000	399000
L	70	.2%	130204.09	121000.00	45000	335000
M	6	.0%	218583.33	191250.00	112000	358000
O	140	.4%	201000.41	154500.00	16000	1300000
P	425	1.4%	351296.41	245000.00	63000	2525000
S	410	1.3%	439203.70	342500.00	92000	3460000
V	129	.4%	174631.40	153000.00	49000	540000
W	255	.8%	223686.86	188000.00	45000	901000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * GARAGE

APPENDIX K: '1994 Descriptive Analysis.'

1994 Descriptive Analysis.

SLDPRICE

GARAGE	N	% of Total N	Mean	Median	Minimum	Maximum
	201	.6%	233520.57	170000.00	11000	1300000
2	37	.1%	508355.41	328500.00	120000	2800000
3	16	.1%	727818.75	438250.00	118000	2525000
4	16	.1%	411093.75	307000.00	179000	1359000
5	83	.3%	215578.92	188000.00	112500	825000
6	4	.0%	737925.00	692500.00	286700	1300000
7	6	.0%	614666.67	541500.00	225000	1155000
8	197	.6%	213856.73	185000.00	117500	2155000
A	49	.2%	310566.33	208500.00	143000	2290000
B	17	.1%	244487.53	200000.00	174900	670000
C	714	2.3%	193773.88	177000.00	45000	1300000
D	9280	29.7%	279802.14	249900.00	75500	2100000
E	50	.2%	190183.98	175000.00	1300	1100000
H	363	1.2%	216286.28	200500.00	125000	785000
J	339	1.1%	206161.06	182000.00	117000	1360000
K	1071	3.4%	225918.46	196800.00	95000	945000
L	444	1.4%	338811.92	265000.00	92500	1575000
M	33	.1%	684136.36	507000.00	115000	3460000
N	6753	21.6%	185362.97	165000.00	10000	1325000
O	259	.8%	317471.19	200000.00	14000	14450000
P	69	.2%	395131.16	305100.00	105000	1500000
Q	19	.1%	267368.42	216000.00	162000	600000
R	68	.2%	308961.62	221500.00	125000	1190000
S	6817	21.8%	203775.59	182500.00	1195	1150000
T	350	1.1%	582761.83	492000.00	113500	2960000
X	2868	9.2%	207028.84	180000.00	62500	1300000
Y	1054	3.4%	286648.91	217000.00	97000	2187500
Z	38	.1%	361331.58	307500.00	110000	1150000
~	2	.0%	196000.00	196000.00	173000	219000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * ROOMS

APPENDIX K: '1994 Descriptive Analysis.'

1994 Descriptive Analysis.

SLDPRICE

ROOMS	N	% of Total N	Mean	Median	Minimum	Maximum
0	248	.8%	301644.78	170000.00	10000	14450000
1	4	.0%	238750.00	59500.00	16000	820000
2	22	.1%	109040.00	101940.00	16000	315000
3	80	.3%	129522.35	115000.00	22000	650000
4	620	2.0%	149349.59	140000.00	39500	613000
5	2876	9.2%	169806.93	161435.00	1300	670000
6	10633	34.1%	191841.40	178000.00	1195	955000
7	6214	19.9%	220791.86	198000.00	65000	2030000
8	6159	19.7%	263125.11	238000.00	60000	1575000
9	2615	8.4%	333743.21	293000.00	85000	2525000
10	1085	3.5%	420645.21	380000.00	98000	1975000
11	281	.9%	485228.68	395000.00	110000	3480000
12	162	.5%	462673.46	337500.00	126000	2800000
13	51	.2%	583148.24	420000.00	175000	2100000
14	46	.1%	566655.43	370000.00	64000	2187500
15	18	.1%	798888.89	378750.00	220000	2980000
16	18	.1%	365361.11	317500.00	172500	1088000
17	10	.0%	639350.00	510500.00	126000	1600000
18	4	.0%	493750.00	462500.00	325000	725000
19	3	.0%	423333.33	418000.00	342000	510000
20	16	.1%	452062.50	455000.00	170000	975000
21	2	.0%	395000.00	395000.00	320000	470000
22	5	.0%	537400.00	440000.00	327000	800000
23	1	.0%	400000.00	400000.00	400000	400000
24	5	.0%	408000.00	442000.00	180000	515000
25	3	.0%	468333.33	420000.00	310000	675000
26	1	.0%	245000.00	245000.00	245000	245000
27	1	.0%	458000.00	458000.00	458000	458000
29	1	.0%	699000.00	699000.00	699000	699000
30	3	.0%	435000.00	485000.00	320000	500000
31	1	.0%	710000.00	710000.00	710000	710000
32	1	.0%	250000.00	250000.00	250000	250000
34	1	.0%	421500.00	421500.00	421500	421500
35	3	.0%	503000.00	530000.00	419000	560000
36	3	.0%	431666.67	355000.00	265000	675000
37	1	.0%	375000.00	375000.00	375000	375000
41	1	.0%	300000.00	300000.00	300000	300000
45	2	.0%	490000.00	490000.00	490000	490000
46	1	.0%	850000.00	850000.00	850000	850000
55	1	.0%	658500.00	658500.00	658500	658500
56	1	.0%	620000.00	620000.00	620000	620000
60	1	.0%	475000.00	475000.00	475000	475000
67	1	.0%	760000.00	760000.00	760000	760000
70	1	.0%	610000.00	610000.00	610000	610000
73	1	.0%	595000.00	595000.00	595000	595000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * BEDS

APPENDIX K: '1994 Descriptive Analysis.'

1994 Descriptive Analysis.

SLDPRICE

BEDS	N	% of Total N	Mean	Median	Minimum	Maximum
0	287	.9%	294703.78	173000.00	10000	14450000
1	191	.6%	155720.47	128500.00	35000	1200000
2	2890	9.3%	176330.74	162000.00	1300	765000
3	16434	52.6%	203762.38	185000.00	1195	2030000
4	9756	31.3%	273207.44	242000.00	60000	2980000
5	1295	4.1%	422662.48	347000.00	78000	3460000
6	227	.7%	483743.61	340000.00	108000	2800000
7	67	.2%	466017.16	338750.00	64000	2187500
8	43	.1%	478493.26	395000.00	180000	2100000
9	27	.1%	532277.78	470000.00	200000	1600000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * NO_WASH

1994 Descriptive Analysis.

SLDPRICE

NO_WASH	N	% of Total N	Mean	Median	Minimum	Maximum
0	233	.7%	312880.28	170000.00	11000	14450000
1	3906	12.5%	170516.82	161500.00	10000	675000
2	12863	41.2%	194213.17	179000.00	1195	1200000
3	9695	31.1%	245945.29	225000.00	20000	1300000
4	3728	11.9%	332919.30	287000.00	59500	2030000
5	498	1.6%	551969.47	498000.00	144000	2155000
6	176	.6%	678753.94	650000.00	120000	2050000
7	62	.2%	914062.24	791500.00	74000	3460000
8	22	.1%	792763.64	710000.00	180000	2290000
9	34	.1%	887294.12	684250.00	200000	2800000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * KITCHEN

1994 Descriptive Analysis.

SLDPRICE

KITCHEN	N	% of Total N	Mean	Median	Minimum	Maximum
0	270	.9%	302314.76	172250.00	10000	14450000
1	24790	79.4%	239724.95	205000.00	1195	2980000
2	5423	17.4%	212978.08	187000.00	50000	2800000
3	579	1.9%	223533.56	190000.00	64000	3460000
4	94	.3%	303373.40	265000.00	95000	800000
5	23	.1%	340728.26	335000.00	170000	572000
6	18	.1%	361194.44	375000.00	163000	515000
7	5	.0%	408800.00	458000.00	170000	710000
8	5	.0%	519000.00	485000.00	180000	975000
9	10	.0%	498300.00	517500.00	258000	760000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * FIRE

APPENDIX K: '1994 Descriptive Analysis.'

SLDPRICE * FIRE

1994 Descriptive Analysis.

SLDPRICE

FIRE	N	% of Total N	Mean	Median	Minimum	Maximum
	209	.7%	244920.96	175000.00	14000	1800000
M	3075	9.9%	412650.67	338000.00	112500	3460000
N	11200	35.9%	175776.33	167000.00	1195	14450000
O	999	3.2%	188753.49	178000.00	45000	850000
R	99	.3%	206681.82	188000.00	83800	710000
Y	15629	50.1%	247101.96	223500.00	52000	1600000
~	6	.0%	253583.33	208000.00	130000	427000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * FAM_ROOM

1994 Descriptive Analysis.

SLDPRICE

FAM_ROOM	N	% of Total N	Mean	Median	Minimum	Maximum
	210	.7%	243560.40	172750.00	14000	1800000
A	12599	40.4%	291478.24	245000.00	69500	3460000
N	18392	58.9%	197570.16	176000.00	1195	14450000
~	16	.1%	256025.00	206250.00	154900	675000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * HEAT

1994 Descriptive Analysis.

SLDPRICE

HEAT	N	% of Total N	Mean	Median	Minimum	Maximum
	199	.6%	232476.41	170000.00	11000	1300000
0	165	.5%	234120.61	190000.00	25000	1850000
1	799	2.6%	263923.97	230500.00	1300	1145000
2	2139	6.9%	211426.11	183000.00	46000	2030000
3	1877	6.0%	324812.55	263200.00	45000	14450000
4	24496	78.5%	231351.04	200000.00	1195	3460000
5	970	3.1%	192625.82	166950.00	16000	752000
6	447	1.4%	259686.50	217000.00	20000	1600000
7	70	.2%	267482.86	252500.00	55000	1200000
8	53	.2%	271286.79	223000.00	59500	1400000
W	1	.0%	190000.00	190000.00	190000	190000
~	1	.0%	123000.00	123000.00	123000	123000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * CAC

APPENDIX K: '1994 Descriptive Analysis.'

1994 Descriptive Analysis.

SLDPRICE

CAC	N	% of Total N	Mean	Median	Minimum	Maximum
	204	.7%	247810.71	173750.00	14000	1800000
N	13417	43.0%	207684.62	179000.00	1300	14450000
Y	17594	56.4%	257124.67	218000.00	1195	3460000
~	2	.0%	179500.00	179500.00	152000	207000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * PARK_CAP

1994 Descriptive Analysis.

SLDPRICE

PARK_CAP	N	% of Total N	Mean	Median	Minimum	Maximum
0	6755	22.0%	185366.12	165000.00	10000	1325000
1	12506	40.7%	207047.85	183375.00	1195	2155000
2	10913	35.5%	283676.57	247000.00	75500	2290000
3	421	1.4%	554394.40	470000.00	110000	3460000
4	69	.2%	537228.26	336750.00	116000	2800000
5	93	.3%	263793.01	195000.00	112500	1300000
Total	30757	100.0%	235137.57	200000.00	1195	3460000

SLDPRICE * BASEMENT

1994 Descriptive Analysis.

SLDPRICE

BASEMENT	N	% of Total N	Mean	Median	Minimum	Maximum
	206	.7%	249623.71	175000.00	11000	1800000
A	2411	7.7%	202062.63	184900.00	79500	900000
C	120	.4%	167742.08	158450.00	45000	399000
D	220	.7%	208723.55	170000.00	22000	1200000
F	15577	49.9%	243637.87	201000.00	1195	3460000
H	55	.2%	252811.82	180100.00	98000	1450000
K	20	.1%	385375.00	295000.00	76000	1060000
L	977	3.1%	222566.85	204000.00	10000	1150000
N	277	.9%	239507.83	165000.00	16000	2980000
O	89	.3%	419089.33	210000.00	73000	14450000
P	4473	14.3%	232321.86	197500.00	35000	2187500
S	79	.3%	204601.90	180000.00	108000	718500
U	6424	20.6%	230224.62	211000.00	14000	1600000
W	289	.9%	292054.38	242500.00	90000	2030000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * DRIVE

APPENDIX K: '1994 Descriptive Analysis.'

1994 Descriptive Analysis.

SLDPRICE

DRIVE	N	% of Total N	Mean	Median	Minimum	Maximum
	197	.6%	229767.18	168800.00	11000	1300000
C	164	.5%	579641.21	463000.00	110000	2525000
D	3935	12.6%	250280.03	225000.00	75000	2050000
F	90	.3%	187814.44	155500.00	14000	655000
L	1732	5.5%	197689.50	178000.00	10000	870000
M	1981	6.3%	216133.37	185500.00	22000	900000
N	893	2.9%	176308.30	153800.00	16000	1200000
O	180	.6%	245474.44	186000.00	39500	1350000
P	21586	69.1%	238251.17	200000.00	1195	14450000
R	259	.8%	233582.24	188000.00	60000	832000
Y	200	.6%	216272.25	185500.00	48000	675000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * POOL

1994 Descriptive Analysis.

SLDPRICE

POOL	N	% of Total N	Mean	Median	Minimum	Maximum
	208	.7%	244117.72	172250.00	14000	1800000
?	5	.0%	284200.00	187000.00	148000	675000
A	373	1.2%	196686.95	180000.00	97000	2187500
H	44	.1%	559059.09	355100.00	69500	2800000
I	1855	5.9%	315482.36	253000.00	94000	3460000
N	28732	92.0%	230610.77	199000.00	1195	14450000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * TYPE

1994 Descriptive Analysis.

SLDPRICE

TYPE	N	% of Total N	Mean	Median	Minimum	Maximum
A	1107	3.5%	177318.54	163000.00	35000	870000
B	23	.1%	104465.22	38000.00	10000	425000
D	22417	71.8%	254226.39	219000.00	1195	3460000
F	12	.0%	349176.67	292500.00	153000	710000
G	5	.0%	131671.80	130000.00	45000	226359
J	39	.1%	277000.00	255000.00	96000	715000
K	21	.1%	295619.05	273500.00	187000	647000
L	1483	4.8%	187113.56	186000.00	97000	323800
M	41	.1%	375646.34	350000.00	115000	975000
N	6	.0%	453500.00	457000.00	187000	710000
O	259	.8%	354757.90	230000.00	16000	14450000
R	16	.1%	268384.38	221500.00	170000	550000
S	5581	17.9%	180253.56	168000.00	45000	832000
V	169	.5%	202958.99	150000.00	30000	1170000
X	1	.0%	365000.00	365000.00	365000	365000
Y	37	.1%	251172.43	215000.00	120000	1200000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * BEACH

APPENDIX K: '1994 Descriptive Analysis.'

1994 Descriptive Analysis.

SLDPRICE

BEACH	N	% of Total N	Mean	Median	Minimum	Maximum
0	26675	85.5%	241405.95	205500.00	1195	14450000
1	4542	14.5%	202946.95	176500.00	10000	1425000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * HWAY

1994 Descriptive Analysis.

SLDPRICE

HWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	17418	55.8%	237936.84	202000.00	1195	3460000
1	13799	44.2%	233125.94	200000.00	16000	14450000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * SUBWAY

1994 Descriptive Analysis.

SLDPRICE

SUBWAY	N	% of Total N	Mean	Median	Minimum	Maximum
0	24307	77.9%	225672.34	198000.00	1195	2960000
1	6910	22.1%	271471.96	214000.00	1300	14450000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * MALL

1994 Descriptive Analysis.

SLDPRICE

MALL	N	% of Total N	Mean	Median	Minimum	Maximum
0	16851	54.0%	232237.83	201500.00	1195	2960000
1	14366	46.0%	240000.64	200000.00	1300	14450000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * BEACH_1

1994 Descriptive Analysis.

SLDPRICE

BEACH_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	29227	93.6%	237340.10	202500.00	1195	14450000
1	1990	6.4%	213341.61	183250.00	16000	1425000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * HWAY_1

APPENDIX K: '1994 Descriptive Analysis.'

1994 Descriptive Analysis.

SLDPRICE

HWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	25310	81.1%	237604.09	200000.00	1195	14450000
1	5907	18.9%	228124.13	200500.00	30000	2290000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * SWAY_1

1994 Descriptive Analysis.

SLDPRICE

SWAY_1	N	% of Total N	Mean	Median	Minimum	Maximum
0	26441	84.7%	228307.21	199000.00	1195	2960000
1	4776	15.3%	276850.56	218000.00	1300	14450000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * MALL_25

1994 Descriptive Analysis.

SLDPRICE

MALL_25	N	% of Total N	Mean	Median	Minimum	Maximum
0	27807	89.1%	237640.22	202000.00	1195	3460000
1	3410	10.9%	220887.76	194000.00	20000	14450000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * BEACH_DO

1994 Descriptive Analysis.

SLDPRICE

BEACH_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	28665	91.8%	239457.65	205000.00	1195	14450000
1.00	2552	8.2%	194841.40	173500.00	10000	1360000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * HWAY_DO

1994 Descriptive Analysis.

SLDPRICE

HWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	23325	74.7%	235451.79	202000.00	1195	3460000
1.00	7892	25.3%	236869.70	198000.00	16000	14450000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * SWAY_DO

APPENDIX K: '1994 Descriptive Analysis.'

1994 Descriptive Analysis.

SLDPRICE

SWAY_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	29083	93.2%	234078.81	200000.00	1195	14450000
1.00	2134	6.8%	258434.39	208000.00	17000	2600000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * MALL_DO

1994 Descriptive Analysis.

SLDPRICE

MALL_DO	N	% of Total N	Mean	Median	Minimum	Maximum
.00	20261	64.9%	230327.57	200000.00	1195	14450000
1.00	10956	35.1%	245949.43	203000.00	1300	3480000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

SLDPRICE * MUNICIPAL

1994 Descriptive Analysis.

SLDPRICE

MUNICIPAL	N	% of Total N	Mean	Median	Minimum	Maximum
AJAX	816	2.6%	175722.04	166000.00	68800	560000
AURORA	434	1.4%	251011.09	229000.00	110000	1100000
BRAMPTON	1967	6.3%	178506.86	168000.00	11000	700000
BURLINGTON	19	.1%	214605.26	175000.00	127000	371000
CALEDON	91	.3%	268819.12	251500.00	145000	710000
E GWILL	28	.1%	218500.71	185250.00	69000	699000
EAST YORK	910	2.9%	207713.52	180000.00	76000	700000
ETOBICOKE	1956	6.3%	244053.81	210000.00	1300	1300000
GEORGINA	35	.1%	150571.43	136000.00	45000	290000
KING	34	.1%	220661.76	225000.00	52000	500000
MARKHAM	1736	5.6%	282964.92	256000.00	73000	1850000
MILTON	16	.1%	168343.75	169450.00	150000	183000
MISS	3992	12.8%	218071.97	199000.00	1195	1600000
NEWCASTLE	14	.0%	132421.43	141250.00	53000	167000
NEWMARKET	704	2.3%	200961.33	197000.00	50000	390000
NORTH YORK	2908	9.3%	315756.19	250000.00	55000	2980000
OAKVILLE	826	2.6%	258754.69	235000.00	115000	1425000
OSHAWA	881	2.8%	132146.21	126000.00	30000	360000
PICKERING	961	3.1%	193548.70	182900.00	49900	520000
R HILL	1046	3.4%	319667.49	280000.00	78000	2800000
SCARBORO	3849	12.3%	200309.33	185000.00	10000	840000
TORONTO	4863	15.6%	273288.92	216000.00	16000	14450000
UXBRIDGE	94	.3%	190662.77	182500.00	60000	600000
VAUGHAN	968	3.2%	281452.31	260000.00	90000	1050000
WHIT/STOUF	89	.3%	276373.04	236000.00	65000	735000
WHITBY	685	2.2%	174766.66	165000.00	90000	625000
YORK	1275	4.1%	178177.44	160000.00	45000	775000
Total	31217	100.0%	235810.26	200000.00	1195	14450000

Appendix L- Gawk Program to Estimate Spatial Lag Variable
Coded by Asmus Georgi

```
# Example gawk program, to compute spatial lag variables for the
years 1990-92
# Run the program as follows: gawk -f lv90-92.awk a90-92
# The following input files (sorted by sales date) are needed:
# Anchor properties file, e.g., "a90-92" - Format: id,x,y,salesdate
# Related properties file, e.g., "p90-92" - Format:
x,y,salesdate,price
# This file also calls the gawk program file "p.awk"
#
# Written by Asmus Georgi, last modified Dec. 22, 1998

BEGIN {

  # Print the time to the screen, to check how long the program
takes:
  print strftime()

  # All input files are comma delimited; set the field separator:
  FS=","

  # Set the initial "start date" for records to be extracted from
the complete
  # related properties file.
  # The following date is July 1, 1989, 1/2 year before first anchor
property.
  sd=32690

  # Run a separate instance of gawk, to extract the necessary
records from the
  # file of all related properties. This creates the file "ps" of
extracted
  # related properties and the file "pfnr" with the number of
extracted records.
  # (See also the file p.awk.):
  system("gawk -f p.awk -v sd=" sd " p90-92")

  # Retrieve the number of records in "ps" and set the variable pn:
  getline pn < "pfnr"

  # Close the file "pfnr" again, so it will be overwritten next
time:
  close("pfnr")

  # To monitor progress, print the start & end date, as well as the
number of
  # extracted related properties, to another file:
  print sd, sd+210, pn > "listpn90-92"
  }

# At least the previous 180 days of data are required in the "ps"
file, and the
# "ps" file includes data spanning 210 days. When the anchor
properties file has
# passed the date ("start date" + 180 + 30) a new related properties
file is
```

Appendix L- Gawk Program to Estimate Spatial Lag Variable
Coded by Asmus Georgi

```
# extracted:
$4>sd+210 {
  sd=sd+30
  system("gawk -f p.awk -v sd=" sd " p90-92")
  getline pn < "pfnr"
  close("pfnr")
  print sd, sd+210, pn > "listpn90-92"
  }

# The following actions are performed for every record in the anchor
properties
# file:
{

  # Set variables equal to the fields of the anchor property record:
  ai=$1
  ax=$2
  ay=$3
  ad=$4

  # Set the number of records in the temporary file "t" to zero:
  tn=0
  # Set the "sum of inverse distances" to zero:
  sid=0
  # Set the "spatial lag variable" to zero:
  slv=0

  # Enter this loop once for every record in "ps":
  for(i=1;i<=pn;i++) {

    # Read a line from the related properties file:
    getline < "ps"

    # If the salesdate from "ps" is between 0 and 180 days before
the anchor
    # property salesdate:
    if ((ad > $3) && (ad - $3 <= 180)) {

      # Calculate the distance between anchor and related property:
      d=((ax - $1)^2 + (ay - $2)^2)^0.5

      # Avoid division by zero:
      if(d==0)d=1

      # If distance is less than 2000 metres:
      if(d<2000) {

        # Update the "sum of inverse distances":
        sid=sid + 1/d

        # Keep track of the number of records in "t":
        tn=tn+1

        # Write the product of price times inverse distance for the
current
        # related property to the file "t":
        print $4*(1/d) > "t"
```

```
        }
      }

    # To expedite processing, break the loop as soon as we reach
related
    # properties with a salesdate >= salesdate of anchor property:
    else if ($3>=ad) i=pn+1
    }

  # Close "ps" and "t" so they can be read from the beginning later:
  close("ps")
  close("t")

  # If any records have been written to the temporary file:
  if(tn!=0) {

    # Enter this loop once for every record in "t":
    for(i=1;i<=tn;i++) {
      getline < "t"

      # Update the "spatial lag variable":
      slv=slv + $0/sid
      }

    # Close the temporary file so it will be overwritten:
    close("t")
    }

  # If no related properties fulfilled the criteria, i.e., no
records were
  # written to the temporary file, set a special value for slv
  else slv=-1

  # Write the anchor property id and the "spatial lag variable" to
the
  # output file:
  print ai "," slv > "lv90-92"
  }

END{

  # Print the time of completion to the screen:
  print strftime()

  # Close and copy the output file:
  close("lv90-92")
  system("copy lv90-92 c:\\homes\\asmus\\m\\files")
  }



BEGIN {FS=","}
$3>=sd+210{exit}
$3>=sd{
  print > "ps"
  pfnr=pfnr+1
```

```
  }
END{print pfnr > "pfnr"}



# Second gawk program file, called by lv*.awk (lv90-92.awk for
example).
# Extracts data spanning 210 days from the complete related
properties file
# and writes it to "ps" - a smaller related properties file. This
expedites
# processing, as fewer related property records have to be read for
each
# anchor property.
#
# Written by Asmus Georgi, last modified Dec. 18, 1998

BEGIN {FS=","}

# End processing when a sales date 210 days beyond the start date is
reached:
$3>=sd+210{exit}

# Only process records with a sales date >= to the start date:
$3>=sd{

  # Print the current record:
  print > "ps"

  # Update the number of extracted records:
  pfnr=pfnr+1
  }

# Store the number of extracted records in the file "pfnr":
END{print pfnr > "pfnr"}
```

TABLE 5.5

Model Summary[b,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.864[a]	.747	.747	.4627	.747	5020.353	19	32347	.000

a. Predictors: (Constant), D_CBD, BEDS_SQR, POOL_UG, BRICK, H_WATOIL, FIRE_MLT, GAR_DBLD, AIR_CON, DETACH, H_WATGAS, FIRE_NO, DIVORCED, CF_AINC, THREE_ST, NO_WASH, SUBWAY, PARK_PRV, PARK_CAP, LOG_LAG

b. Dependent Variable: LOG_PRIC

c. Weighted Least Squares Regression - Weighted by ROOMS

ANOVA[b,c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20419.898	19	1074.731	5020.353	.000[a]
	Residual	6924.681	32347	.214		
	Total	27344.579	32366			

a. Predictors: (Constant), D_CBD, BEDS_SQR, POOL_UG, BRICK, H_WATOIL, FIRE_MLT, GAR_DBLD, AIR_CON, DETACH, H_WATGAS, FIRE_NO, DIVORCED, CF_AINC, THREE_ST, NO_WASH, SUBWAY, PARK_PRV, PARK_CAP, LOG_LAG

b. Dependent Variable: LOG_PRIC

c. Weighted Least Squares Regression - Weighted by ROOMS

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	5.128	.072		71.469	.000	4.987	5.268		
	SUBWAY	2.428E-02	.003	.030	8.112	.000	.018	.030	.565	1.770
	CF_AINC	2.794E-06	.000	.128	30.787	.000	.000	.000	.455	2.197
	DIVORCED	1.581E-04	.000	.034	10.432	.000	.000	.000	.731	1.369
	LOG_LAG	.537	.006	.380	88.187	.000	.526	.549	.422	2.372
	PARK_PRV	5.773E-02	.003	.069	17.803	.000	.051	.064	.527	1.896
	POOL_UG	7.623E-02	.005	.041	14.489	.000	.066	.087	.956	1.046
	DETACH	9.220E-02	.002	.123	39.330	.000	.088	.097	.798	1.253
	THREE_ST	9.718E-02	.005	.069	20.736	.000	.088	.106	.711	1.406
	BRICK	4.187E-02	.003	.044	15.228	.000	.036	.047	.934	1.071
	GAR_DBLD	1.132E-03	.005	.001	.208	.835	-.010	.012	.794	1.259
	FIRE_MLT	.130	.004	.090	30.029	.000	.122	.139	.866	1.155
	FIRE_NO	-5.494E-02	.002	-.076	-23.030	.000	-.060	-.050	.724	1.382
	AIR_CON	4.115E-02	.002	.052	16.962	.000	.036	.046	.834	1.199
	H_WATOIL	3.960E-02	.005	.022	7.521	.000	.029	.050	.920	1.087
	H_WATGAS	3.324E-02	.004	.024	8.106	.000	.025	.041	.869	1.151
	BEDS_SQR	8.243E-03	.000	.165	50.481	.000	.008	.009	.729	1.371
	PARK_CAP	4.632E-02	.002	.098	24.955	.000	.043	.050	.505	1.980
	NO_WASH	7.418E-02	.001	.199	57.870	.000	.072	.077	.663	1.508
	D_CBD	-6.161E-03	.000	-.165	-36.990	.000	-.006	-.006	.393	2.545

a. Dependent Variable: LOG_PRIC

b. Weighted Least Squares Regression - Weighted by ROOMS

Residuals Statistics[b,c]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.8461	14.2105	12.1696	.2905	32367
Std. Predicted Value[a]	.	.	.	.	0
Standard Error of Predicted Value	2.070E-03	1.604E-02	4.113E-03	1.396E-03	32367
Adjusted Predicted Value	10.8434	14.2109	12.1696	.2905	32367
Residual	-2.3521	1.8146	-6.49E-03	.1723	32367
Std. Residual[a]	.	.	.	.	0
Stud. Residual	-15.401	16.229	-.019	1.000	32367
Deleted Residual	-2.3552	1.8158	-6.49E-03	.1725	32367
Stud. Deleted Residual	-15.457	16.296	-.019	1.001	32367
Mahal. Distance	.729	1296.253	18.999	24.465	32367
Cook's Distance	.000	.530	.000	.003	32367
Centered Leverage Value	.000	.040	.001	.001	32367

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: LOG_PRIC

c. Weighted Least Squares Regression - Weighted by ROOMS

TABLE 5.6

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.842[a]	.709	.709	.1891	.709	4266.577	19	33238	.000
2	.850[b]	.723	.723	.1847	.013	1614.174	1	33237	.000

a. Predictors: (Constant), H_WATGAS, POOL_UG, BRICK, H_WATOIL, GAR_DBLD, DETACH, FIRE_MLT, DIVORCED, AIR_CON, THREE_ST, NO_WASH, FIRE_NO, LOG_LAG, SUBWAY, PARK_PRV, GAR_DBLA, CF_AINC, D_CBD, PARK_CAP

b. Predictors: (Constant), H_WATGAS, POOL_UG, BRICK, H_WATOIL, GAR_DBLD, DETACH, FIRE_MLT, DIVORCED, AIR_CON, THREE_ST, NO_WASH, FIRE_NO, LOG_LAG, SUBWAY, PARK_PRV, GAR_DBLA, CF_AINC, D_CBD, PARK_CAP, BEDS_SQR

ANOVA[c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2898.309	19	152.543	4266.577	.000[a]
	Residual	1188.355	33238	3.575E-02		
	Total	4086.664	33257			
2	Regression	2953.349	20	147.667	4330.677	.000[b]
	Residual	1133.315	33237	3.410E-02		
	Total	4086.664	33257			

a. Predictors: (Constant), H_WATGAS, POOL_UG, BRICK, H_WATOIL, GAR_DBLD, DETACH, FIRE_MLT, DIVORCED, AIR_CON, THREE_ST, NO_WASH, FIRE_NO, LOG_LAG, SUBWAY, PARK_PRV, GAR_DBLA, CF_AINC, D_CBD, PARK_CAP

b. Predictors: (Constant), H_WATGAS, POOL_UG, BRICK, H_WATOIL, GAR_DBLD, DETACH, FIRE_MLT, DIVORCED, AIR_CON, THREE_ST, NO_WASH, FIRE_NO, LOG_LAG, SUBWAY, PARK_PRV, GAR_DBLA, CF_AINC, D_CBD, PARK_CAP, BEDS_SQR

c. Dependent Variable: LOG_PRIC

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	5.014	.075		66.965	.000	4.867	5.161		
	NO_WASH	8.656E-02	.001	.234	66.628	.000	.084	.089	.709	1.410
	PARK_CAP	1.513E-02	.003	.032	5.633	.000	.010	.020	.268	3.735
	SUBWAY	2.029E-02	.003	.026	6.660	.000	.014	.026	.578	1.730
	D_CBD	-5.483E-03	.000	-.149	-31.802	.000	-.006	-.005	.401	2.494
	CF_AINC	2.815E-06	.000	.127	29.071	.000	.000	.000	.461	2.170
	DIVORCED	1.546E-04	.000	.034	9.867	.000	.000	.000	.737	1.357
	LOG_LAG	.551	.006	.388	86.714	.000	.538	.563	.438	2.285
	PARK_PRV	6.187E-02	.003	.076	18.673	.000	.055	.068	.531	1.884
	POOL_UG	7.623E-02	.006	.040	13.207	.000	.065	.088	.959	1.043
	DETACH	7.880E-02	.002	.107	32.428	.000	.074	.084	.809	1.237
	THREE_ST	.175	.005	.119	36.085	.000	.165	.184	.799	1.251
	BRICK	5.495E-02	.003	.060	19.623	.000	.049	.060	.928	1.078

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	GAR_DBLA	8.753E-02	.004	.108	20.219	.000	.079	.096	.307	3.262
	GAR_DBLD	7.556E-02	.007	.043	11.589	.000	.063	.088	.630	1.587
	FIRE_MLT	.134	.005	.090	28.337	.000	.125	.143	.869	1.150
	FIRE_NO	-4.795E-02	.002	-.068	-19.533	.000	-.053	-.043	.729	1.371
	AIR_CON	4.026E-02	.003	.051	15.656	.000	.035	.045	.839	1.192
	H_WATOIL	4.829E-02	.005	.028	8.920	.000	.038	.059	.918	1.089
	H_WATGAS	5.630E-02	.004	.042	13.269	.000	.048	.065	.881	1.135
2	(Constant)	5.179	.073		70.716	.000	5.035	5.322		
	NO_WASH	7.387E-02	.001	.200	56.501	.000	.071	.076	.668	1.497
	PARK_CAP	1.670E-02	.003	.036	6.366	.000	.012	.022	.268	3.736
	SUBWAY	2.285E-02	.003	.029	7.680	.000	.017	.029	.578	1.731
	D_CBD	-5.802E-03	.000	-.157	-34.424	.000	-.006	-.005	.400	2.500
	CF_AINC	2.892E-06	.000	.130	30.570	.000	.000	.000	.461	2.171
	DIVORCED	1.671E-04	.000	.037	10.915	.000	.000	.000	.737	1.357
	LOG_LAG	.534	.006	.376	85.853	.000	.521	.546	.436	2.296
	PARK_PRV	6.066E-02	.003	.074	18.746	.000	.054	.067	.531	1.885
	POOL_UG	7.034E-02	.006	.037	12.475	.000	.059	.081	.958	1.044
	DETACH	8.361E-02	.002	.113	35.187	.000	.079	.088	.807	1.240
	THREE_ST	.117	.005	.080	23.751	.000	.108	.127	.732	1.365
	BRICK	4.947E-02	.003	.054	18.067	.000	.044	.055	.926	1.080
	GAR_DBLA	6.783E-02	.004	.084	15.938	.000	.059	.076	.303	3.306
	GAR_DBLD	5.517E-02	.006	.032	8.637	.000	.043	.068	.626	1.597
	FIRE_MLT	.129	.005	.087	27.920	.000	.120	.138	.869	1.151
	FIRE_NO	-4.908E-02	.002	-.069	-20.474	.000	-.054	-.044	.729	1.372
	AIR_CON	4.276E-02	.003	.054	17.018	.000	.038	.048	.838	1.193
	H_WATOIL	4.274E-02	.005	.024	8.081	.000	.032	.053	.918	1.090
	H_WATGAS	4.253E-02	.004	.032	10.230	.000	.034	.051	.875	1.143
	BEDS_SQR	7.222E-03	.000	.136	40.177	.000	.007	.008	.727	1.376

a. Dependent Variable: LOG_PRIC

Excluded Variables[b]

Model		Beta In	t	Sig.	Partial Correlation	Collinearity Statistics		
						Tolerance	VIF	Minimum Tolerance
1	BEDS_SQR	.136[a]	40.177	.000	.215	.727	1.376	.268

a. Predictors in the Model: (Constant), H_WATGAS, POOL_UG, BRICK, H_WATOIL, GAR_DBLD, DETACH, FIRE_MLT, DIVORCED, AIR_CON, THREE_ST, NO_WASH, FIRE_NO, LOG_LAG, SUBWAY, PARK_PRV, GAR_DBLA, CF_AINC, D_CBD, PARK_CAP

b. Dependent Variable: LOG_PRIC

TABLE 5.7

Model Summary[b,c]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.840[a]	.706	.706	.4990	.706	4116.124	19	32580	.000

a. Predictors: (Constant), CT_AVP, D_CBD, BRICK, POOL_UG, GAR_DBLD, H_WATOIL, BEDS_SQR, AIR_CON, FIRE_MLT, DETACH, H_WATGAS, FIRE_NO, DIVORCED, THREE_ST, NO_WASH, SUBWAY, PARK_PRV, PARK_CAP, CF_AINC

b. Dependent Variable: LOG_PRIC

c. Weighted Least Squares Regression - Weighted by ROOMS

ANOVA[b,c]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	19471.418	19	1024.811	4116.124	.000[a]
	Residual	8111.601	32580	.249		
	Total	27583.019	32599			

a. Predictors: (Constant), CT_AVP, D_CBD, BRICK, POOL_UG, GAR_DBLD, H_WATOIL, BEDS_SQR, AIR_CON, FIRE_MLT, DETACH, H_WATGAS, FIRE_NO, DIVORCED, THREE_ST, NO_WASH, SUBWAY, PARK_PRV, PARK_CAP, CF_AINC

b. Dependent Variable: LOG_PRIC

c. Weighted Least Squares Regression - Weighted by ROOMS

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	7.137	.087		82.261	.000	6.967	7.307		
	SUBWAY	3.118E-02	.003	.039	9.696	.000	.025	.037	.567	1.765
	CF_AINC	1.873E-06	.000	.085	13.440	.000	.000	.000	.224	4.471
	DIVORCED	2.826E-04	.000	.061	17.441	.000	.000	.000	.739	1.353
	PARK_PRV	5.643E-02	.003	.067	16.213	.000	.050	.063	.530	1.888
	POOL_UG	.101	.006	.055	17.827	.000	.090	.112	.955	1.047
	DETACH	.100	.003	.134	39.879	.000	.095	.105	.800	1.250
	THREE_ST	9.229E-02	.005	.065	18.237	.000	.082	.102	.708	1.412
	BRICK	4.986E-02	.003	.053	16.901	.000	.044	.056	.935	1.070
	GAR_DBLD	-2.320E-03	.006	-.001	-.396	.692	-.014	.009	.793	1.261
	FIRE_MLT	.145	.005	.100	31.156	.000	.136	.154	.868	1.152
	FIRE_NO	-6.039E-02	.003	-.083	-23.508	.000	-.065	-.055	.721	1.388
	AIR_CON	6.079E-02	.003	.077	23.433	.000	.056	.066	.841	1.189
	H_WATOIL	4.869E-02	.006	.027	8.606	.000	.038	.060	.921	1.086
	H_WATGAS	3.519E-02	.004	.026	7.971	.000	.027	.044	.869	1.151
	BEDS_SQR	9.256E-03	.000	.185	52.852	.000	.009	.010	.735	1.360
	PARK_CAP	5.098E-02	.002	.108	25.398	.000	.047	.055	.498	2.006
	NO_WASH	7.510E-02	.001	.201	54.454	.000	.072	.078	.662	1.510
	D_CBD	-8.893E-03	.000	-.241	-52.529	.000	-.009	-.009	.429	2.332
	CT_AVP	.387	.008	.321	49.568	.000	.372	.402	.215	4.655

a. Dependent Variable: LOG_PRIC

b. Weighted Least Squares Regression - Weighted by ROOMS

Residuals Statistics[b,c]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	11.1149	14.0634	12.1694	.2820	32600
Std. Predicted Value[a]	.	.	.	.	0
Standard Error of Predicted Value	2.235E-03	1.449E-02	4.425E-03	1.486E-03	32600
Adjusted Predicted Value	11.1133	14.0636	12.1694	.2820	32600
Residual	-2.4507	1.8614	-7.09E-03	.1861	32600
Std. Residual[a]	.	.	.	.	0
Stud. Residual	-15.572	16.979	-.019	1.000	32600
Deleted Residual	-2.4633	1.8650	-7.09E-03	.1863	32600
Stud. Deleted Residual	-15.630	17.054	-.019	1.001	32600
Mahal. Distance	.794	1298.416	18.999	24.403	32600
Cook's Distance	.000	.521	.000	.003	32600
Centered Leverage Value	.000	.040	.001	.001	32600

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: LOG_PRIC

c. Weighted Least Squares Regression - Weighted by ROOMS

Table 5.8, Appendix M

Model Summary[cc,dd]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.807[a]	.651	.651	.6613	.651	50337.057	1	26929	.000	
2	.871[b]	.759	.759	.5499	.108	12014.806	1	26928	.000	
3	.881[c]	.776	.776	.5297	.017	2094.288	1	26927	.000	
4	.889[d]	.791	.791	.5122	.015	1877.678	1	26926	.000	
5	.895[e]	.801	.801	.4997	.010	1362.716	1	26925	.000	
6	.898[f]	.806	.806	.4930	.005	738.792	1	26924	.000	
7	.902[g]	.813	.813	.4846	.006	933.052	1	26923	.000	
8	.905[h]	.819	.819	.4765	.006	932.108	1	26922	.000	
9	.907[i]	.823	.823	.4715	.004	573.739	1	26921	.000	
10	.908[j]	.825	.825	.4683	.002	363.496	1	26920	.000	
11	.910[k]	.827	.827	.4655	.002	327.662	1	26919	.000	
12	.910[l]	.829	.829	.4633	.002	258.017	1	26918	.000	
13	.911[m]	.830	.830	.4622	.001	127.747	1	26917	.000	
14	.911[n]	.831	.830	.4612	.001	122.620	1	26916	.000	
15	.912[o]	.831	.831	.4604	.001	97.623	1	26915	.000	
16	.912[p]	.832	.831	.4599	.000	55.855	1	26914	.000	
17	.912[q]	.832	.832	.4594	.000	56.590	1	26913	.000	
18	.912[r]	.832	.832	.4591	.000	44.688	1	26912	.000	
19	.912[s]	.832	.832	.4588	.000	33.126	1	26911	.000	
20	.912[t]	.833	.832	.4585	.000	31.553	1	26910	.000	
21	.913[u]	.833	.833	.4584	.000	19.437	1	26909	.000	
22	.913[v]	.833	.833	.4582	.000	16.288	1	26908	.000	
23	.913[w]	.833	.833	.4582	.000	.382	1	26910	.536	
24	.913[x]	.833	.833	.4581	.000	21.194	1	26908	.000	
25	.913[y]	.833	.833	.4580	.000	13.428	1	26907	.000	
26	.913[z]	.833	.833	.4579	.000	9.621	1	26906	.002	
27	.913[aa]	.833	.833	.4576	.000	29.818	1	26905	.000	
28	.913[bb]	.833	.833	.4576	.000	4.275	1	26904	.039	1.972

a. Predictors: (Constant), LOG_LAG

b. Predictors: (Constant), LOG_LAG, NO_WASH

c. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT

d. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH

e. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS

f. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC

g. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD

h. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP

i. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO

j. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON

k. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6

l. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS

Model Summary[cc,dd]

m. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG

n. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT

o. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST

p. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS

q. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC

r. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL

s. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND

t. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1

u. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID

v. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034

w. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034

x. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY

y. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED

z. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED, BEACH

aa. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED, BEACH, BEACH_1

bb. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED, BEACH, BEACH_1, MALL_25

cc. Dependent Variable: LOG_PRIC

dd. Weighted Least Squares Regression - Weighted by ROOMS

ANOVA[cc,dd]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	22012.394	1	22012.394	50337.057	.000[a]
	Residual	11776.051	26929	.437		
	Total	33788.445	26930			
2	Regression	25645.593	2	12822.796	42404.339	.000[b]
	Residual	8142.852	26928	.302		
	Total	33788.445	26930			
3	Regression	26233.212	3	8744.404	31165.232	.000[c]
	Residual	7555.232	26927	.281		
	Total	33788.445	26930			
4	Regression	26725.729	4	6681.432	25472.389	.000[d]
	Residual	7062.716	26926	.262		
	Total	33788.445	26930			
5	Regression	27065.964	5	5413.193	21681.017	.000[e]
	Residual	6722.481	26925	.250		
	Total	33788.445	26930			
6	Regression	27245.502	6	4540.917	18685.728	.000[f]
	Residual	6542.943	26924	.243		
	Total	33788.445	26930			
7	Regression	27464.661	7	3923.523	16704.083	.000[g]
	Residual	6323.784	26923	.235		
	Total	33788.445	26930			
8	Regression	27676.280	8	3459.535	15238.070	.000[h]
	Residual	6112.165	26922	.227		
	Total	33788.445	26930			
9	Regression	27803.824	9	3089.314	13896.856	.000[i]
	Residual	5984.621	26921	.222		
	Total	33788.445	26930			
10	Regression	27883.556	10	2788.356	12711.931	.000[j]
	Residual	5904.888	26920	.219		
	Total	33788.445	26930			
11	Regression	27954.567	11	2541.324	11726.319	.000[k]
	Residual	5833.878	26919	.217		
	Total	33788.445	26930			
12	Regression	28009.956	12	2334.163	10873.257	.000[l]
	Residual	5778.489	26918	.215		
	Total	33788.445	26930			
13	Regression	28037.251	13	2156.712	10093.939	.000[m]
	Residual	5751.194	26917	.214		
	Total	33788.445	26930			
14	Regression	28063.332	14	2004.524	9424.052	.000[n]
	Residual	5725.113	26916	.213		
	Total	33788.445	26930			

ANOVA[cc,dd]

Model		Sum of Squares	df	Mean Square	F	Sig.
15	Regression	28084.023	15	1872.268	8833.865	.000[o]
	Residual	5704.422	26915	.212		
	Total	33788.445	26930			
16	Regression	28095.837	16	1755.990	8302.119	.000[p]
	Residual	5692.608	26914	.212		
	Total	33788.445	26930			
17	Regression	28107.781	17	1653.399	7833.227	.000[q]
	Residual	5680.663	26913	.211		
	Total	33788.445	26930			
18	Regression	28117.199	18	1562.067	7412.539	.000[r]
	Residual	5671.246	26912	.211		
	Total	33788.445	26930			
19	Regression	28124.171	19	1480.220	7032.532	.000[s]
	Residual	5664.274	26911	.210		
	Total	33788.445	26930			
20	Regression	28130.805	20	1406.540	6690.068	.000[t]
	Residual	5657.640	26910	.210		
	Total	33788.445	26930			
21	Regression	28134.889	21	1339.757	6376.785	.000[u]
	Residual	5653.556	26909	.210		
	Total	33788.445	26930			
22	Regression	28138.309	22	1279.014	6091.129	.000[v]
	Residual	5650.136	26908	.210		
	Total	33788.445	26930			
23	Regression	28138.228	21	1339.916	6381.311	.000[w]
	Residual	5650.216	26909	.210		
	Total	33788.445	26930			
24	Regression	28142.675	22	1279.213	6096.786	.000[x]
	Residual	5645.770	26908	.210		
	Total	33788.445	26930			
25	Regression	28145.491	23	1223.717	5834.986	.000[y]
	Residual	5642.953	26907	.210		
	Total	33788.445	26930			
26	Regression	28147.509	24	1172.813	5594.054	.000[z]
	Residual	5640.936	26906	.210		
	Total	33788.445	26930			
27	Regression	28153.753	25	1126.150	5377.237	.000[aa]
	Residual	5634.692	26905	.209		
	Total	33788.445	26930			
28	Regression	28154.649	26	1082.871	5171.214	.000[bb]
	Residual	5633.796	26904	.209		
	Total	33788.445	26930			

a. Predictors: (Constant), LOG_LAG

b. Predictors: (Constant), LOG_LAG, NO_WASH

ANOVA[cc,dd]

c. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT

d. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH

e. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS

f. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC

g. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD

h. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP

i. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO

j. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON

k. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6

l. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS

m. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG

n. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT

o. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST

p. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS

q. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC

r. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL

s. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND

t. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1

u. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID

v. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, KIDS_LT6, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034

w. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034

x. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY

y. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED

z. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED, BEACH

aa. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED, BEACH, BEACH_1

bb. Predictors: (Constant), LOG_LAG, NO_WASH, FIRE_MLT, DETACH, BEDS, CF_AVINC, D_CBD, PARK_CAP, FIRE_NO, AIR_CON, SENIORS, POOL_UG, IMMIGRNT, THREE_ST, UNIVERS, CF_MDINC, MALL, POOL_IND, HWAY_1, FAAVKID, MALE3034, SUBWAY, DIVORCED, BEACH, BEACH_1, MALL_25

cc. Dependent Variable: LOG_PRIC

dd. Weighted Least Squares Regression - Weighted by ROOMS

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-.618	.058		-10.741	.000	-.731	-.505		
	LOG_LAG	1.050	.005	.807	224.359	.000	1.041	1.059	1.000	1.000
2	(Constant)	1.223	.051		24.117	.000	1.124	1.323		
	LOG_LAG	.870	.004	.669	206.125	.000	.862	.878	.849	1.177
	NO_WASH	.138	.001	.356	109.612	.000	.135	.140	.849	1.177
3	(Constant)	1.887	.051		37.018	.000	1.787	1.987		
	LOG_LAG	.817	.004	.628	193.035	.000	.808	.825	.785	1.274
	NO_WASH	.127	.001	.328	103.084	.000	.124	.129	.819	1.221
	FIRE_MLT	.189	.004	.144	45.763	.000	.181	.197	.839	1.191
4	(Constant)	2.110	.050		42.583	.000	2.013	2.207		
	LOG_LAG	.792	.004	.609	191.823	.000	.784	.800	.770	1.299
	NO_WASH	.124	.001	.320	103.837	.000	.121	.126	.816	1.225
	FIRE_MLT	.180	.004	.138	45.227	.000	.173	.188	.837	1.194
	DETACH	.119	.003	.124	43.332	.000	.114	.124	.955	1.047
5	(Constant)	2.094	.048		43.306	.000	1.999	2.188		
	LOG_LAG	.783	.004	.602	193.917	.000	.775	.791	.767	1.304
	NO_WASH	9.913E-02	.001	.256	73.925	.000	.097	.102	.614	1.629
	FIRE_MLT	.177	.004	.135	45.387	.000	.169	.184	.837	1.195
	DETACH	.121	.003	.126	45.107	.000	.116	.126	.954	1.048
	BEDS	5.621E-02	.002	.121	36.915	.000	.053	.059	.688	1.454
6	(Constant)	3.059	.059		51.440	.000	2.943	3.176		
	LOG_LAG	.696	.005	.535	136.182	.000	.686	.706	.466	2.146
	NO_WASH	9.718E-02	.001	.251	73.348	.000	.095	.100	.612	1.634
	FIRE_MLT	.166	.004	.126	42.896	.000	.158	.173	.828	1.208
	DETACH	.114	.003	.119	43.091	.000	.109	.120	.947	1.056
	BEDS	5.685E-02	.002	.122	37.845	.000	.054	.060	.688	1.454
	CF_AVINC	1.635E-06	.000	.104	27.181	.000	.000	.000	.494	2.025
7	(Constant)	4.025	.066		60.555	.000	3.895	4.156		
	LOG_LAG	.618	.006	.475	109.501	.000	.606	.629	.370	2.705
	NO_WASH	.104	.001	.269	78.633	.000	.101	.106	.595	1.680
	FIRE_MLT	.157	.004	.120	41.287	.000	.150	.165	.823	1.215
	DETACH	.130	.003	.135	48.944	.000	.125	.135	.911	1.098
	BEDS	5.681E-02	.001	.122	38.465	.000	.054	.060	.688	1.454
	CF_AVINC	2.132E-06	.000	.135	34.753	.000	.000	.000	.459	2.178
	D_CBD	-3.049E-03	.000	-.092	-30.546	.000	-.003	-.003	.758	1.319

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
8	(Constant)	4.499	.067		66.984	.000	4.368	4.631		
	LOG_LAG	.579	.006	.446	101.954	.000	.568	.591	.352	2.842
	NO_WASH	9.277E-02	.001	.240	68.796	.000	.090	.095	.552	1.811
	FIRE_MLT	.155	.004	.118	41.442	.000	.148	.163	.823	1.215
	DETACH	.108	.003	.113	39.952	.000	.103	.114	.847	1.180
	BEDS	5.299E-02	.001	.114	36.355	.000	.050	.056	.683	1.465
	CF_AVINC	2.299E-06	.000	.146	37.976	.000	.000	.000	.455	2.196
	D_CBD	-4.059E-03	.000	-.123	-39.196	.000	-.004	-.004	.681	1.469
	PARK_CAP	5.145E-02	.002	.100	30.530	.000	.048	.055	.621	1.610
9	(Constant)	4.786	.068		70.866	.000	4.654	4.919		
	LOG_LAG	.561	.006	.431	98.755	.000	.550	.572	.345	2.897
	NO_WASH	8.982E-02	.001	.232	67.030	.000	.087	.092	.547	1.827
	FIRE_MLT	.146	.004	.111	39.208	.000	.139	.153	.814	1.228
	DETACH	.100	.003	.104	37.104	.000	.095	.106	.834	1.199
	BEDS	5.240E-02	.001	.113	36.330	.000	.050	.055	.683	1.465
	CF_AVINC	2.271E-06	.000	.144	37.902	.000	.000	.000	.455	2.197
	D_CBD	-4.299E-03	.000	-.130	-41.752	.000	-.005	-.004	.674	1.483
	PARK_CAP	4.260E-02	.002	.083	24.940	.000	.039	.046	.592	1.690
	FIRE_NO	-6.593E-02	.003	-.073	-23.953	.000	-.071	-.061	.710	1.409
10	(Constant)	4.875	.067		72.496	.000	4.744	5.007		
	LOG_LAG	.551	.006	.424	97.412	.000	.540	.563	.343	2.918
	NO_WASH	8.669E-02	.001	.224	64.637	.000	.084	.089	.539	1.855
	FIRE_MLT	.147	.004	.112	39.780	.000	.140	.154	.814	1.228
	DETACH	.100	.003	.104	37.229	.000	.095	.105	.834	1.199
	BEDS	5.563E-02	.001	.120	38.559	.000	.053	.058	.673	1.486
	CF_AVINC	2.315E-06	.000	.147	38.856	.000	.000	.000	.454	2.200
	D_CBD	-4.523E-03	.000	-.137	-43.936	.000	-.005	-.004	.666	1.502
	PARK_CAP	3.877E-02	.002	.076	22.693	.000	.035	.042	.584	1.713
	FIRE_NO	-6.085E-02	.003	-.067	-22.149	.000	-.066	-.055	.703	1.422
	AIR_CON	4.504E-02	.002	.052	19.066	.000	.040	.050	.871	1.148

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
11	(Constant)	4.925	.067		73.614	.000	4.794	5.056		
	LOG_LAG	.549	.006	.422	97.612	.000	.538	.560	.343	2.920
	NO_WASH	8.895E-02	.001	.230	66.435	.000	.086	.092	.534	1.871
	FIRE_MLT	.140	.004	.107	37.791	.000	.133	.147	.804	1.243
	DETACH	9.892E-02	.003	.103	37.022	.000	.094	.104	.834	1.199
	BEDS	5.513E-02	.001	.119	38.439	.000	.052	.058	.673	1.486
	CF_AVINC	2.216E-06	.000	.141	37.271	.000	.000	.000	.451	2.219
	D_CBD	-3.925E-03	.000	-.119	-36.496	.000	-.004	-.004	.603	1.659
	PARK_CAP	4.216E-02	.002	.082	24.677	.000	.039	.046	.577	1.734
	FIRE_NO	-6.366E-02	.003	-.070	-23.274	.000	-.069	-.058	.701	1.427
	AIR_CON	4.640E-02	.002	.054	19.752	.000	.042	.051	.870	1.149
	KIDS_LT6	-7.613E-05	.000	-.052	-18.101	.000	.000	.000	.771	1.297
12	(Constant)	5.042	.067		75.272	.000	4.911	5.173		
	LOG_LAG	.535	.006	.412	94.454	.000	.524	.546	.334	2.990
	NO_WASH	8.997E-02	.001	.233	67.442	.000	.087	.093	.533	1.875
	FIRE_MLT	.134	.004	.103	36.327	.000	.127	.142	.798	1.254
	DETACH	9.177E-02	.003	.095	34.037	.000	.086	.097	.811	1.233
	BEDS	5.664E-02	.001	.122	39.589	.000	.054	.059	.670	1.493
	CF_AVINC	2.334E-06	.000	.148	39.137	.000	.000	.000	.444	2.253
	D_CBD	-3.441E-03	.000	-.104	-30.945	.000	-.004	-.003	.558	1.791
	PARK_CAP	4.514E-02	.002	.088	26.389	.000	.042	.048	.570	1.755
	FIRE_NO	-6.692E-02	.003	-.074	-24.513	.000	-.072	-.062	.697	1.434
	AIR_CON	4.888E-02	.002	.056	20.859	.000	.044	.053	.867	1.154
	KIDS_LT6	-7.638E-05	.000	-.052	-18.246	.000	.000	.000	.771	1.297
	SENIORS	6.654E-05	.000	.047	16.063	.000	.000	.000	.753	1.328
13	(Constant)	5.038	.067		75.395	.000	4.907	5.169		
	LOG_LAG	.536	.006	.412	94.773	.000	.525	.547	.334	2.990
	NO_WASH	8.987E-02	.001	.233	67.524	.000	.087	.092	.533	1.875
	FIRE_MLT	.131	.004	.100	35.217	.000	.123	.138	.791	1.265
	DETACH	8.989E-02	.003	.093	33.353	.000	.085	.095	.808	1.238
	BEDS	5.626E-02	.001	.121	39.405	.000	.053	.059	.670	1.493
	CF_AVINC	2.304E-06	.000	.146	38.683	.000	.000	.000	.443	2.257
	D_CBD	-3.542E-03	.000	-.107	-31.825	.000	-.004	-.003	.555	1.802
	PARK_CAP	4.488E-02	.002	.088	26.296	.000	.042	.048	.570	1.755
	FIRE_NO	-6.607E-02	.003	-.073	-24.253	.000	-.071	-.061	.697	1.436
	AIR_CON	4.726E-02	.002	.055	20.179	.000	.043	.052	.863	1.158
	KIDS_LT6	-7.276E-05	.000	-.050	-17.371	.000	.000	.000	.766	1.305
	SENIORS	6.675E-05	.000	.047	16.150	.000	.000	.000	.753	1.328
	POOL_UG	4.868E-02	.004	.029	11.303	.000	.040	.057	.941	1.063

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
14	(Constant)	5.164	.068		76.352	.000	5.032	5.297		
	LOG_LAG	.525	.006	.404	91.631	.000	.514	.536	.324	3.083
	NO_WASH	9.002E-02	.001	.233	67.786	.000	.087	.093	.533	1.876
	FIRE_MLT	.128	.004	.098	34.700	.000	.121	.136	.789	1.268
	DETACH	8.915E-02	.003	.093	33.142	.000	.084	.094	.807	1.238
	BEDS	5.638E-02	.001	.121	39.578	.000	.054	.059	.670	1.493
	CF_AVINC	2.449E-06	.000	.155	40.245	.000	.000	.000	.423	2.367
	D_CBD	-3.719E-03	.000	-.113	-33.150	.000	-.004	-.003	.544	1.840
	PARK_CAP	4.628E-02	.002	.090	27.104	.000	.043	.050	.567	1.765
	FIRE_NO	-6.551E-02	.003	-.072	-24.097	.000	-.071	-.060	.696	1.436
	AIR_CON	4.790E-02	.002	.055	20.490	.000	.043	.052	.863	1.159
	KIDS_LT6	-6.094E-05	.000	-.042	-14.128	.000	.000	.000	.720	1.390
	SENIORS	7.135E-05	.000	.050	17.216	.000	.000	.000	.745	1.342
	POOL_UG	4.833E-02	.004	.029	11.247	.000	.040	.057	.940	1.063
	IMMIGRNT	-3.795E-06	.000	-.029	-11.073	.000	.000	.000	.888	1.126
15	(Constant)	5.123	.068		75.740	.000	4.991	5.256		
	LOG_LAG	.529	.006	.406	92.240	.000	.517	.540	.323	3.096
	NO_WASH	8.910E-02	.001	.231	67.048	.000	.086	.092	.531	1.885
	FIRE_MLT	.127	.004	.097	34.265	.000	.120	.134	.787	1.270
	DETACH	9.235E-02	.003	.096	34.148	.000	.087	.098	.796	1.257
	BEDS	5.297E-02	.001	.114	36.207	.000	.050	.056	.632	1.581
	CF_AVINC	2.383E-06	.000	.151	39.003	.000	.000	.000	.418	2.395
	D_CBD	-3.506E-03	.000	-.106	-30.751	.000	-.004	-.003	.524	1.908
	PARK_CAP	4.840E-02	.002	.094	28.175	.000	.045	.052	.558	1.793
	FIRE_NO	-6.403E-02	.003	-.071	-23.558	.000	-.069	-.059	.694	1.440
	AIR_CON	4.964E-02	.002	.057	21.215	.000	.045	.054	.858	1.166
	KIDS_LT6	-6.047E-05	.000	-.041	-14.044	.000	.000	.000	.719	1.390
	SENIORS	7.254E-05	.000	.051	17.526	.000	.000	.000	.745	1.343
	POOL_UG	4.948E-02	.004	.030	11.530	.000	.041	.058	.940	1.064
	IMMIGRNT	-3.485E-06	.000	-.027	-10.145	.000	.000	.000	.881	1.135
	THREE_ST	5.401E-02	.005	.028	9.880	.000	.043	.065	.789	1.268

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
16	(Constant)	5.171	.068		76.184	.000	5.038	5.304		
	LOG_LAG	.526	.006	.405	91.853	.000	.515	.538	.322	3.103
	NO_WASH	8.996E-02	.001	.233	67.510	.000	.087	.093	.527	1.899
	FIRE_MLT	.126	.004	.096	34.020	.000	.119	.133	.786	1.272
	DETACH	9.089E-02	.003	.094	33.555	.000	.086	.096	.792	1.263
	BEDS	5.326E-02	.001	.115	36.429	.000	.050	.056	.632	1.582
	CF_AVINC	2.144E-06	.000	.136	31.102	.000	.000	.000	.327	3.054
	D_CBD	-3.815E-03	.000	-.116	-31.486	.000	-.004	-.004	.463	2.158
	PARK_CAP	5.016E-02	.002	.098	28.956	.000	.047	.054	.548	1.826
	FIRE_NO	-6.259E-02	.003	-.069	-22.992	.000	-.068	-.057	.691	1.448
	AIR_CON	5.161E-02	.002	.060	21.938	.000	.047	.056	.847	1.180
	KIDS_LT6	-4.256E-05	.000	-.029	-8.645	.000	.000	.000	.549	1.821
	SENIORS	7.159E-05	.000	.050	17.308	.000	.000	.000	.744	1.344
	POOL_UG	4.997E-02	.004	.030	11.655	.000	.042	.058	.940	1.064
	IMMIGRNT	-1.470E-05	.000	-.114	-9.550	.000	.000	.000	.044	22.837
	THREE_ST	5.011E-02	.005	.026	9.136	.000	.039	.061	.782	1.279
	UNIVERS	1.218E-05	.000	.090	7.474	.000	.000	.000	.043	23.007
17	(Constant)	5.174	.068		76.301	.000	5.041	5.307		
	LOG_LAG	.529	.006	.407	92.221	.000	.518	.540	.321	3.112
	NO_WASH	8.959E-02	.001	.232	67.257	.000	.087	.092	.526	1.901
	FIRE_MLT	.124	.004	.095	33.531	.000	.117	.131	.783	1.277
	DETACH	9.171E-02	.003	.095	33.864	.000	.086	.097	.790	1.265
	BEDS	5.306E-02	.001	.114	36.323	.000	.050	.056	.632	1.583
	CF_AVINC	3.128E-06	.000	.198	21.157	.000	.000	.000	.071	14.082
	D_CBD	-3.672E-03	.000	-.111	-29.966	.000	-.004	-.003	.452	2.212
	PARK_CAP	5.049E-02	.002	.099	29.172	.000	.047	.054	.547	1.827
	FIRE_NO	-6.446E-02	.003	-.071	-23.607	.000	-.070	-.059	.685	1.460
	AIR_CON	5.267E-02	.002	.061	22.374	.000	.048	.057	.844	1.185
	KIDS_LT6	-3.387E-05	.000	-.023	-6.704	.000	.000	.000	.520	1.922
	SENIORS	6.442E-05	.000	.045	15.192	.000	.000	.000	.706	1.415
	POOL_UG	4.965E-02	.004	.030	11.591	.000	.041	.058	.939	1.064
	IMMIGRNT	-1.727E-05	.000	-.134	-10.961	.000	.000	.000	.042	23.959
	THREE_ST	4.636E-02	.006	.024	8.426	.000	.036	.057	.775	1.290
	UNIVERS	1.568E-05	.000	.115	9.259	.000	.000	.000	.040	24.882
	CF_MDINC	-1.632E-06	.000	-.072	-7.523	.000	.000	.000	.068	14.719

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
18	(Constant)	5.200	.068		76.622	.000	5.067	5.333		
	LOG_LAG	.527	.006	.405	91.931	.000	.516	.538	.321	3.118
	NO_WASH	8.959E-02	.001	.232	67.311	.000	.087	.092	.526	1.901
	FIRE_MLT	.124	.004	.094	33.409	.000	.116	.131	.783	1.277
	DETACH	9.066E-02	.003	.094	33.448	.000	.085	.096	.788	1.269
	BEDS	5.326E-02	.001	.115	36.484	.000	.050	.056	.632	1.583
	CF_AVINC	3.190E-06	.000	.202	21.553	.000	.000	.000	.071	14.138
	D_CBD	-3.699E-03	.000	-.112	-30.199	.000	-.004	-.003	.452	2.214
	PARK_CAP	5.023E-02	.002	.098	29.034	.000	.047	.054	.547	1.828
	FIRE_NO	-6.471E-02	.003	-.072	-23.714	.000	-.070	-.059	.685	1.460
	AIR_CON	5.290E-02	.002	.061	22.487	.000	.048	.058	.844	1.185
	KIDS_LT6	-3.774E-05	.000	-.026	-7.427	.000	.000	.000	.514	1.947
	SENIORS	6.443E-05	.000	.045	15.206	.000	.000	.000	.706	1.415
	POOL_UG	4.998E-02	.004	.030	11.676	.000	.042	.058	.939	1.065
	IMMIGRNT	-1.616E-05	.000	-.126	-10.212	.000	.000	.000	.041	24.222
	THREE_ST	4.922E-02	.006	.025	8.925	.000	.038	.060	.771	1.298
	UNIVERS	1.449E-05	.000	.107	8.516	.000	.000	.000	.040	25.157
	CF_MDINC	-1.672E-06	.000	-.074	-7.711	.000	.000	.000	.068	14.730
	MALL	-1.466E-02	.002	-.017	-6.685	.000	-.019	-.010	.939	1.065
19	(Constant)	5.198	.068		76.626	.000	5.065	5.330		
	LOG_LAG	.528	.006	.406	92.033	.000	.516	.539	.321	3.118
	NO_WASH	8.917E-02	.001	.231	66.937	.000	.087	.092	.524	1.907
	FIRE_MLT	.123	.004	.094	33.112	.000	.115	.130	.781	1.280
	DETACH	9.053E-02	.003	.094	33.418	.000	.085	.096	.788	1.269
	BEDS	5.336E-02	.001	.115	36.567	.000	.050	.056	.631	1.584
	CF_AVINC	3.158E-06	.000	.200	21.336	.000	.000	.000	.071	14.157
	D_CBD	-3.718E-03	.000	-.113	-30.363	.000	-.004	-.003	.451	2.216
	PARK_CAP	5.010E-02	.002	.098	28.975	.000	.047	.053	.547	1.829
	FIRE_NO	-6.491E-02	.003	-.072	-23.800	.000	-.070	-.060	.685	1.460
	AIR_CON	5.297E-02	.002	.061	22.528	.000	.048	.058	.844	1.185
	KIDS_LT6	-3.712E-05	.000	-.025	-7.308	.000	.000	.000	.513	1.948
	SENIORS	6.441E-05	.000	.045	15.210	.000	.000	.000	.706	1.415
	POOL_UG	5.083E-02	.004	.031	11.875	.000	.042	.059	.938	1.066
	IMMIGRNT	-1.619E-05	.000	-.126	-10.234	.000	.000	.000	.041	24.223
	THREE_ST	4.954E-02	.006	.026	8.989	.000	.039	.060	.771	1.298
	UNIVERS	1.451E-05	.000	.107	8.536	.000	.000	.000	.040	25.157
	CF_MDINC	-1.635E-06	.000	-.072	-7.542	.000	.000	.000	.068	14.743
	MALL	-1.456E-02	.002	-.017	-6.640	.000	-.019	-.010	.939	1.065
	POOL_IND	.132	.023	.014	5.756	.000	.087	.177	.986	1.014

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
20	(Constant)	5.215	.068		76.846	.000	5.082	5.348		
	LOG_LAG	.526	.006	.405	91.838	.000	.515	.538	.320	3.122
	NO_WASH	8.920E-02	.001	.231	66.992	.000	.087	.092	.524	1.907
	FIRE_MLT	.123	.004	.094	33.236	.000	.116	.130	.781	1.281
	DETACH	9.097E-02	.003	.094	33.585	.000	.086	.096	.787	1.271
	BEDS	5.329E-02	.001	.115	36.543	.000	.050	.056	.631	1.584
	CF_AVINC	3.146E-06	.000	.200	21.265	.000	.000	.000	.071	14.160
	D_CBD	-3.763E-03	.000	-.114	-30.678	.000	-.004	-.004	.449	2.225
	PARK_CAP	5.007E-02	.002	.098	28.975	.000	.047	.053	.547	1.829
	FIRE_NO	-6.501E-02	.003	-.072	-23.848	.000	-.070	-.060	.685	1.460
	AIR_CON	5.358E-02	.002	.062	22.778	.000	.049	.058	.842	1.187
	KIDS_LT6	-3.708E-05	.000	-.025	-7.304	.000	.000	.000	.513	1.948
	SENIORS	6.278E-05	.000	.044	14.799	.000	.000	.000	.703	1.422
	POOL_UG	5.120E-02	.004	.031	11.966	.000	.043	.060	.938	1.066
	IMMIGRNT	-1.626E-05	.000	-.126	-10.288	.000	.000	.000	.041	24.224
	THREE_ST	4.909E-02	.006	.025	8.911	.000	.038	.060	.770	1.298
	UNIVERS	1.463E-05	.000	.108	8.609	.000	.000	.000	.040	25.161
	CF_MDINC	-1.624E-06	.000	-.072	-7.495	.000	.000	.000	.068	14.744
	MALL	-1.334E-02	.002	-.016	-6.058	.000	-.018	-.009	.930	1.075
	POOL_IND	.131	.023	.014	5.722	.000	.086	.176	.986	1.014
	HWAY_1	-1.529E-02	.003	-.014	-5.617	.000	-.021	-.010	.977	1.023

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
21	(Constant)	5.199	.068		76.523	.000	5.066	5.332		
	LOG_LAG	.529	.006	.407	91.891	.000	.517	.540	.318	3.148
	NO_WASH	8.936E-02	.001	.231	67.114	.000	.087	.092	.524	1.909
	FIRE_MLT	.122	.004	.093	33.001	.000	.115	.129	.779	1.284
	DETACH	9.046E-02	.003	.094	33.379	.000	.085	.096	.786	1.273
	BEDS	5.327E-02	.001	.115	36.542	.000	.050	.056	.631	1.584
	CF_AVINC	3.120E-06	.000	.198	21.077	.000	.000	.000	.071	14.184
	D_CBD	-3.727E-03	.000	-.113	-30.337	.000	-.004	-.003	.448	2.234
	PARK_CAP	5.057E-02	.002	.099	29.212	.000	.047	.054	.544	1.837
	FIRE_NO	-6.540E-02	.003	-.072	-23.986	.000	-.071	-.060	.684	1.462
	AIR_CON	5.380E-02	.002	.062	22.874	.000	.049	.058	.842	1.188
	KIDS_LT6	-3.559E-05	.000	-.024	-6.998	.000	.000	.000	.511	1.957
	SENIORS	5.491E-05	.000	.039	11.932	.000	.000	.000	.597	1.674
	POOL_UG	5.089E-02	.004	.031	11.896	.000	.043	.059	.938	1.066
	IMMIGRNT	-1.433E-05	.000	-.111	-8.736	.000	.000	.000	.038	26.094
	THREE_ST	4.803E-02	.006	.025	8.713	.000	.037	.059	.769	1.301
	UNIVERS	1.259E-05	.000	.093	7.150	.000	.000	.000	.037	27.028
	CF_MDINC	-1.524E-06	.000	-.067	-6.999	.000	.000	.000	.067	14.905
	MALL	-1.349E-02	.002	-.016	-6.129	.000	-.018	-.009	.930	1.076
	POOL_IND	.131	.023	.014	5.687	.000	.086	.176	.986	1.014
	HWAY_1	-1.543E-02	.003	-.014	-5.670	.000	-.021	-.010	.977	1.024
	FAAVKID	-1.312E-02	.003	-.014	-4.409	.000	-.019	-.007	.598	1.673

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
22	(Constant)	5.231	.068		76.498	.000	5.097	5.365		
	LOG_LAG	.528	.006	.406	91.663	.000	.516	.539	.317	3.153
	NO_WASH	8.938E-02	.001	.231	67.145	.000	.087	.092	.524	1.909
	FIRE_MLT	.123	.004	.094	33.124	.000	.115	.130	.778	1.285
	DETACH	8.943E-02	.003	.093	32.866	.000	.084	.095	.779	1.284
	BEDS	5.351E-02	.001	.115	36.685	.000	.051	.056	.630	1.586
	CF_AVINC	3.113E-06	.000	.198	21.038	.000	.000	.000	.070	14.185
	D_CBD	-3.847E-03	.000	-.117	-30.448	.000	-.004	-.004	.423	2.364
	PARK_CAP	5.010E-02	.002	.098	28.884	.000	.047	.054	.542	1.845
	FIRE_NO	-6.606E-02	.003	-.073	-24.192	.000	-.071	-.061	.682	1.467
	AIR_CON	5.332E-02	.002	.062	22.647	.000	.049	.058	.840	1.191
	KIDS_LT6	7.282E-06	.000	.005	.618	.536	.000	.000	.095	10.497
	SENIORS	5.790E-05	.000	.041	12.426	.000	.000	.000	.582	1.718
	POOL_UG	5.035E-02	.004	.030	11.769	.000	.042	.059	.937	1.067
	IMMIGRNT	-1.467E-05	.000	-.114	-8.937	.000	.000	.000	.038	26.165
	THREE_ST	5.229E-02	.006	.027	9.319	.000	.041	.063	.742	1.348
	UNIVERS	1.298E-05	.000	.096	7.361	.000	.000	.000	.037	27.108
	CF_MDINC	-1.650E-06	.000	-.073	-7.501	.000	.000	.000	.066	15.209
	MALL	-1.350E-02	.002	-.016	-6.133	.000	-.018	-.009	.930	1.076
	POOL_IND	.130	.023	.014	5.659	.000	.085	.175	.986	1.015
	HWAY_1	-1.509E-02	.003	-.014	-5.542	.000	-.020	-.010	.976	1.025
	FAAVKID	-1.749E-02	.003	-.019	-5.525	.000	-.024	-.011	.528	1.895
	MALE3034	-9.407E-05	.000	-.029	-4.036	.000	.000	.000	.120	8.338

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
23	(Constant)	5.226	.068		76.981	.000	5.093	5.359		
	LOG_LAG	.528	.006	.406	91.790	.000	.517	.539	.318	3.147
	NO_WASH	8.939E-02	.001	.231	67.163	.000	.087	.092	.524	1.908
	FIRE_MLT	.123	.004	.094	33.132	.000	.115	.130	.780	1.282
	DETACH	8.958E-02	.003	.093	33.050	.000	.084	.095	.785	1.274
	BEDS	5.347E-02	.001	.115	36.694	.000	.051	.056	.632	1.583
	CF_AVINC	3.109E-06	.000	.197	21.033	.000	.000	.000	.071	14.152
	D_CBD	-3.818E-03	.000	-.116	-32.430	.000	-.004	-.004	.487	2.053
	PARK_CAP	5.017E-02	.002	.098	28.970	.000	.047	.054	.544	1.839
	FIRE_NO	-6.601E-02	.003	-.073	-24.185	.000	-.071	-.061	.682	1.466
	AIR_CON	5.336E-02	.002	.062	22.673	.000	.049	.058	.840	1.190
	SENIORS	5.757E-05	.000	.040	12.437	.000	.000	.000	.590	1.696
	POOL_UG	5.035E-02	.004	.030	11.769	.000	.042	.059	.937	1.067
	IMMIGRNT	-1.440E-05	.000	-.112	-9.104	.000	.000	.000	.041	24.289
	THREE_ST	5.180E-02	.006	.027	9.325	.000	.041	.063	.757	1.321
	UNIVERS	1.270E-05	.000	.093	7.456	.000	.000	.000	.040	25.289
	CF_MDINC	-1.620E-06	.000	-.072	-7.550	.000	.000	.000	.069	14.477
	MALL	-1.356E-02	.002	-.016	-6.170	.000	-.018	-.009	.932	1.073
	POOL_IND	.130	.023	.014	5.658	.000	.085	.175	.986	1.015
	HWAY_1	-1.513E-02	.003	-.014	-5.561	.000	-.020	-.010	.977	1.024
	FAAVKID	-1.683E-02	.003	-.018	-5.644	.000	-.023	-.011	.595	1.682
	MALE3034	-8.107E-05	.000	-.025	-8.056	.000	.000	.000	.643	1.554

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients			95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound	Tolerance	VIF
24	(Constant)	5.206	.068		76.583	.000	5.073	5.340		
	LOG_LAG	.528	.006	.406	91.905	.000	.517	.540	.318	3.148
	NO_WASH	8.934E-02	.001	.231	67.144	.000	.087	.092	.524	1.908
	FIRE_MLT	.123	.004	.094	33.201	.000	.116	.130	.780	1.283
	DETACH	8.989E-02	.003	.093	33.166	.000	.085	.095	.784	1.275
	BEDS	5.359E-02	.001	.115	36.783	.000	.051	.056	.631	1.584
	CF_AVINC	3.064E-06	.000	.194	20.687	.000	.000	.000	.070	14.216
	D_CBD	-3.544E-03	.000	-.108	-26.863	.000	-.004	-.003	.388	2.580
	PARK_CAP	5.054E-02	.002	.099	29.165	.000	.047	.054	.543	1.843
	FIRE_NO	-6.592E-02	.003	-.073	-24.158	.000	-.071	-.061	.682	1.466
	AIR_CON	5.442E-02	.002	.063	23.023	.000	.050	.059	.832	1.201
	SENIORS	5.646E-05	.000	.040	12.183	.000	.000	.000	.588	1.700
	POOL_UG	5.099E-02	.004	.031	11.916	.000	.043	.059	.936	1.069
	IMMIGRNT	-1.230E-05	.000	-.096	-7.471	.000	.000	.000	.038	26.319
	THREE_ST	4.949E-02	.006	.026	8.877	.000	.039	.060	.751	1.332
	UNIVERS	1.058E-05	.000	.078	6.000	.000	.000	.000	.037	27.136
	CF_MDINC	-1.556E-06	.000	-.069	-7.241	.000	.000	.000	.069	14.538
	MALL	-1.432E-02	.002	-.017	-6.500	.000	-.019	-.010	.927	1.079
	POOL_IND	.132	.023	.014	5.730	.000	.087	.177	.985	1.015
	HWAY_1	-1.332E-02	.003	-.012	-4.847	.000	-.019	-.008	.957	1.045
	FAAVKID	-1.649E-02	.003	-.018	-5.528	.000	-.022	-.011	.594	1.683
	MALE3034	-9.023E-05	.000	-.028	-8.800	.000	.000	.000	.619	1.615
	SUBWAY	1.620E-02	.004	.016	4.604	.000	.009	.023	.528	1.894

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
25	(Constant)	5.201	.068		76.506	.000	5.068	5.334		
	LOG_LAG	.528	.006	.406	91.867	.000	.517	.539	.318	3.149
	NO_WASH	8.950E-02	.001	.232	67.244	.000	.087	.092	.523	1.911
	FIRE_MLT	.122	.004	.093	33.075	.000	.115	.130	.779	1.284
	DETACH	9.080E-02	.003	.094	33.370	.000	.085	.096	.778	1.285
	BEDS	5.332E-02	.001	.115	36.564	.000	.050	.056	.630	1.588
	CF_AVINC	3.034E-06	.000	.192	20.460	.000	.000	.000	.070	14.258
	D_CBD	-3.537E-03	.000	-.107	-26.810	.000	-.004	-.003	.388	2.580
	PARK_CAP	5.122E-02	.002	.100	29.396	.000	.048	.055	.536	1.864
	FIRE_NO	-6.563E-02	.003	-.073	-24.047	.000	-.071	-.060	.681	1.468
	AIR_CON	5.458E-02	.002	.063	23.091	.000	.050	.059	.832	1.202
	SENIORS	4.617E-05	.000	.032	8.526	.000	.000	.000	.430	2.324
	POOL_UG	5.010E-02	.004	.030	11.692	.000	.042	.058	.933	1.072
	IMMIGRNT	-1.025E-05	.000	-.080	-5.899	.000	.000	.000	.034	29.348
	THREE_ST	4.812E-02	.006	.025	8.615	.000	.037	.059	.747	1.338
	UNIVERS	8.508E-06	.000	.063	4.596	.000	.000	.000	.033	29.923
	CF_MDINC	-1.439E-06	.000	-.064	-6.621	.000	.000	.000	.067	14.863
	MALL	-1.461E-02	.002	-.017	-6.628	.000	-.019	-.010	.925	1.081
	POOL_IND	.132	.023	.014	5.734	.000	.087	.177	.985	1.015
	HWAY_1	-1.374E-02	.003	-.013	-4.998	.000	-.019	-.008	.955	1.047
	FAAVKID	-1.586E-02	.003	-.017	-5.312	.000	-.022	-.010	.592	1.688
	MALE3034	-1.243E-04	.000	-.038	-8.980	.000	.000	.000	.340	2.945
	SUBWAY	1.564E-02	.004	.015	4.443	.000	.009	.023	.527	1.897
	DIVORCED	6.846E-05	.000	.016	3.664	.000	.000	.000	.315	3.179

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
26	(Constant)	5.247	.070		75.439	.000	5.111	5.383		
	LOG_LAG	.525	.006	.404	89.682	.000	.513	.536	.306	3.263
	NO_WASH	8.954E-02	.001	.232	67.280	.000	.087	.092	.523	1.911
	FIRE_MLT	.123	.004	.094	33.143	.000	.115	.130	.778	1.285
	DETACH	9.076E-02	.003	.094	33.361	.000	.085	.096	.778	1.285
	BEDS	5.333E-02	.001	.115	36.576	.000	.050	.056	.630	1.588
	CF_AVINC	3.031E-06	.000	.192	20.446	.000	.000	.000	.070	14.259
	D_CBD	-3.609E-03	.000	-.109	-26.945	.000	-.004	-.003	.376	2.661
	PARK_CAP	5.123E-02	.002	.100	29.404	.000	.048	.055	.536	1.864
	FIRE_NO	-6.580E-02	.003	-.073	-24.111	.000	-.071	-.060	.681	1.468
	AIR_CON	5.418E-02	.002	.063	22.892	.000	.050	.059	.830	1.205
	SENIORS	4.480E-05	.000	.031	8.246	.000	.000	.000	.427	2.339
	POOL_UG	5.054E-02	.004	.030	11.790	.000	.042	.059	.932	1.073
	IMMIGRNT	-1.097E-05	.000	-.085	-6.258	.000	.000	.000	.033	29.869
	THREE_ST	4.826E-02	.006	.025	8.640	.000	.037	.059	.747	1.338
	UNIVERS	9.185E-06	.000	.068	4.929	.000	.000	.000	.033	30.340
	CF_MDINC	-1.429E-06	.000	-.063	-6.576	.000	.000	.000	.067	14.866
	MALL	-1.546E-02	.002	-.018	-6.960	.000	-.020	-.011	.911	1.097
	POOL_IND	.134	.023	.015	5.820	.000	.089	.179	.985	1.016
	HWAY_1	-1.323E-02	.003	-.012	-4.802	.000	-.019	-.008	.952	1.051
	FAAVKID	-1.623E-02	.003	-.018	-5.431	.000	-.022	-.010	.591	1.691
	MALE3034	-1.264E-04	.000	-.039	-9.122	.000	.000	.000	.339	2.952
	SUBWAY	1.454E-02	.004	.014	4.111	.000	.008	.021	.522	1.917
	DIVORCED	7.787E-05	.000	.019	4.115	.000	.000	.000	.307	3.262
	BEACH	-1.027E-02	.003	-.008	-3.102	.002	-.017	-.004	.833	1.201

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
27	(Constant)	5.239	.070		75.345	.000	5.102	5.375		
	LOG_LAG	.525	.006	.404	89.809	.000	.514	.537	.306	3.264
	NO_WASH	8.938E-02	.001	.231	67.180	.000	.087	.092	.523	1.912
	FIRE_MLT	.122	.004	.093	33.045	.000	.115	.129	.778	1.285
	DETACH	9.029E-02	.003	.094	33.188	.000	.085	.096	.777	1.287
	BEDS	5.327E-02	.001	.115	36.553	.000	.050	.056	.630	1.588
	CF_AVINC	3.027E-06	.000	.192	20.429	.000	.000	.000	.070	14.259
	D_CBD	-3.569E-03	.000	-.108	-26.619	.000	-.004	-.003	.375	2.669
	PARK_CAP	5.140E-02	.002	.100	29.514	.000	.048	.055	.536	1.865
	FIRE_NO	-6.558E-02	.003	-.073	-24.040	.000	-.071	-.060	.681	1.469
	AIR_CON	5.450E-02	.002	.063	23.031	.000	.050	.059	.829	1.206
	SENIORS	4.719E-05	.000	.033	8.663	.000	.000	.000	.425	2.354
	POOL_UG	5.101E-02	.004	.031	11.903	.000	.043	.059	.931	1.074
	IMMIGRNT	-1.052E-05	.000	-.082	-6.000	.000	.000	.000	.033	29.934
	THREE_ST	4.850E-02	.006	.025	8.687	.000	.038	.059	.747	1.338
	UNIVERS	8.636E-06	.000	.064	4.630	.000	.000	.000	.033	30.428
	CF_MDINC	-1.429E-06	.000	-.063	-6.580	.000	.000	.000	.067	14.866
	MALL	-1.523E-02	.002	-.018	-6.858	.000	-.020	-.011	.911	1.098
	POOL_IND	.133	.023	.015	5.784	.000	.088	.178	.985	1.016
	HWAY_1	-1.284E-02	.003	-.012	-4.663	.000	-.018	-.007	.951	1.052
	FAAVKID	-1.590E-02	.003	-.017	-5.323	.000	-.022	-.010	.591	1.691
	MALE3034	-1.242E-04	.000	-.038	-8.964	.000	.000	.000	.338	2.955
	SUBWAY	1.748E-02	.004	.017	4.889	.000	.010	.024	.510	1.961
	DIVORCED	6.756E-05	.000	.016	3.554	.000	.000	.000	.304	3.295
	BEACH	-2.314E-02	.004	-.019	-5.695	.000	-.031	-.015	.553	1.810
	BEACH_1	3.156E-02	.006	.018	5.461	.000	.020	.043	.582	1.717

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
28	(Constant)	5.238	.070		75.342	.000	5.102	5.375		
	LOG_LAG	.525	.006	.404	89.822	.000	.514	.537	.306	3.264
	NO_WASH	8.938E-02	.001	.231	67.185	.000	.087	.092	.523	1.912
	FIRE_MLT	.122	.004	.093	33.062	.000	.115	.130	.778	1.285
	DETACH	9.040E-02	.003	.094	33.225	.000	.085	.096	.777	1.287
	BEDS	5.331E-02	.001	.115	36.577	.000	.050	.056	.630	1.588
	CF_AVINC	3.028E-06	.000	.192	20.439	.000	.000	.000	.070	14.259
	D_CBD	-3.587E-03	.000	-.109	-26.699	.000	-.004	-.003	.373	2.680
	PARK_CAP	5.142E-02	.002	.100	29.527	.000	.048	.055	.536	1.865
	FIRE_NO	-6.558E-02	.003	-.073	-24.041	.000	-.071	-.060	.681	1.469
	AIR_CON	5.432E-02	.002	.063	22.941	.000	.050	.059	.828	1.208
	SENIORS	4.746E-05	.000	.033	8.710	.000	.000	.000	.424	2.356
	POOL_UG	5.098E-02	.004	.031	11.897	.000	.043	.059	.931	1.074
	IMMIGRNT	-1.056E-05	.000	-.082	-6.023	.000	.000	.000	.033	29.938
	THREE_ST	4.843E-02	.006	.025	8.675	.000	.037	.059	.747	1.338
	UNIVERS	8.732E-06	.000	.064	4.680	.000	.000	.000	.033	30.447
	CF_MDINC	-1.429E-06	.000	-.063	-6.581	.000	.000	.000	.067	14.866
	MALL	-1.708E-02	.002	-.020	-7.134	.000	-.022	-.012	.784	1.276
	POOL_IND	.133	.023	.014	5.777	.000	.088	.178	.985	1.016
	HWAY_1	-1.342E-02	.003	-.012	-4.848	.000	-.019	-.008	.941	1.062
	FAAVKID	-1.566E-02	.003	-.017	-5.237	.000	-.022	-.010	.590	1.694
	MALE3034	-1.245E-04	.000	-.038	-8.981	.000	.000	.000	.338	2.955
	SUBWAY	1.748E-02	.004	.017	4.887	.000	.010	.024	.510	1.961
	DIVORCED	6.658E-05	.000	.016	3.502	.000	.000	.000	.303	3.297
	BEACH	-2.324E-02	.004	-.019	-5.719	.000	-.031	-.015	.552	1.810
	BEACH_1	3.159E-02	.006	.018	5.467	.000	.020	.043	.582	1.717
	MALL_25	7.668E-03	.004	.006	2.068	.039	.000	.015	.820	1.219

a. Dependent Variable: LOG_PRIC

b. Weighted Least Squares Regression - Weighted by ROOMS

Residuals Statistics[b,c]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	10.6300	14.5635	12.2417	.3693	26931
Std. Predicted Value[a]	.	.	.	.	0
Standard Error of Predicted Value	2.716E-03	3.566E-02	5.111E-03	1.644E-03	26931
Adjusted Predicted Value	10.6240	14.5678	12.2417	.3693	26931
Residual	-2.0414	1.4186	-4.3436E-03	.1697	26931
Std. Residual[a]	.	.	.	.	0
Stud. Residual	-9.150	9.944	-.012	1.000	26931
Deleted Residual	-2.0425	1.4212	-4.3439E-03	.1700	26931
Stud. Deleted Residual	-9.164	9.962	-.012	1.001	26931
Mahal. Distance	2.735	2350.159	25.999	52.497	26931
Cook's Distance	.000	.069	.000	.001	26931
Centered Leverage Value	.000	.087	.001	.002	26931

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: LOG_PRIC

c. Weighted Least Squares Regression - Weighted by ROOMS

Table 5.10, Appendix M

Model Summary[bb,cc]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics: R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	.771[a]	.594	.594	.7146	.594	39489.580	1	26974	.000	
2	.844[b]	.712	.712	.6016	.118	11090.639	1	26973	.000	
3	.856[c]	.733	.733	.5801	.020	2039.833	1	26972	.000	
4	.865[d]	.748	.748	.5636	.015	1598.627	1	26971	.000	
5	.871[e]	.759	.759	.5510	.011	1255.484	1	26970	.000	
6	.875[f]	.766	.766	.5426	.007	835.019	1	26969	.000	
7	.880[g]	.775	.775	.5319	.009	1096.417	1	26968	.000	
8	.884[h]	.782	.781	.5244	.006	785.944	1	26967	.000	
9	.888[i]	.788	.788	.5169	.006	780.643	1	26966	.000	
10	.890[j]	.793	.793	.5108	.005	653.183	1	26965	.000	
11	.893[k]	.798	.798	.5046	.005	668.772	1	26964	.000	
12	.895[l]	.801	.800	.5011	.003	373.676	1	26963	.000	
13	.897[m]	.804	.804	.4970	.003	447.489	1	26962	.000	
14	.898[n]	.806	.806	.4944	.002	285.882	1	26961	.000	
15	.898[o]	.807	.807	.4930	.001	152.974	1	26960	.000	
16	.899[p]	.808	.808	.4920	.001	120.539	1	26959	.000	
17	.899[q]	.808	.808	.4911	.001	96.399	1	26958	.000	
18	.900[r]	.809	.809	.4901	.001	114.355	1	26957	.000	
19	.900[s]	.810	.810	.4895	.000	62.582	1	26956	.000	
20	.900[t]	.810	.810	.4891	.000	42.262	1	26955	.000	
21	.900[u]	.810	.810	.4889	.000	26.860	1	26954	.000	
22	.900[v]	.810	.810	.4887	.000	22.739	1	26953	.000	
23	.900[w]	.810	.810	.4886	.000	9.673	1	26952	.002	
24	.900[x]	.810	.810	.4885	.000	9.392	1	26951	.002	
25	.900[y]	.811	.810	.4885	.000	7.397	1	26950	.007	
26	.900[z]	.811	.810	.4884	.000	6.359	1	26949	.012	
27	.900[aa]	.811	.810	.4884	.000	5.171	1	26948	.023	1.966

a. Predictors: (Constant), CT_AVP

b. Predictors: (Constant), CT_AVP, NO_WASH

c. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT

d. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH

e. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS

f. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD

g. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO

h. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC

i. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP

j. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS

k. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON

l. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT

m. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS

Model Summary[bb,cc]

n. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034

o. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG

p. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID

q. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH

r. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED

s. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1

t. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND

u. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL

v. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST

w. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1

x. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1, HWAY

y. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1, HWAY, BSMT_FIN

z. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1, HWAY, BSMT_FIN, MALL_25

aa. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1, HWAY, BSMT_FIN, MALL_25, SWAY_1

bb. Dependent Variable: LOG_PRIC

cc. Weighted Least Squares Regression - Weighted by ROOMS

ANOVA[bb,cc]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20167.680	1	20167.680	39489.580	.000[a]
	Residual	13775.862	26974	.511		
	Total	33943.542	26975			
2	Regression	24181.566	2	12090.783	33407.653	.000[b]
	Residual	9761.976	26973	.362		
	Total	33943.542	26975			
3	Regression	24867.934	3	8289.311	24635.189	.000[c]
	Residual	9075.607	26972	.336		
	Total	33943.542	26975			
4	Regression	25375.764	4	6343.941	19970.457	.000[d]
	Residual	8567.778	26971	.318		
	Total	33943.542	26975			
5	Regression	25756.863	5	5151.373	16970.560	.000[e]
	Residual	8186.678	26970	.304		
	Total	33943.542	26975			
6	Regression	26002.728	6	4333.788	14718.634	.000[f]
	Residual	7940.814	26969	.294		
	Total	33943.542	26975			
7	Regression	26312.959	7	3758.994	13285.034	.000[g]
	Residual	7630.583	26968	.283		
	Total	33943.542	26975			
8	Regression	26529.051	8	3316.131	12060.993	.000[h]
	Residual	7414.490	26967	.275		
	Total	33943.542	26975			
9	Regression	26737.656	9	2970.851	11117.572	.000[i]
	Residual	7205.886	26966	.267		
	Total	33943.542	26975			
10	Regression	26908.078	10	2690.808	10313.128	.000[j]
	Residual	7035.463	26965	.261		
	Total	33943.542	26975			
11	Regression	27078.351	11	2461.668	9668.548	.000[k]
	Residual	6865.190	26964	.255		
	Total	33943.542	26975			
12	Regression	27172.194	12	2264.350	9016.471	.000[l]
	Residual	6771.347	26963	.251		
	Total	33943.542	26975			
13	Regression	27282.744	13	2098.673	8495.140	.000[m]
	Residual	6660.798	26962	.247		
	Total	33943.542	26975			
14	Regression	27352.631	14	1953.759	7992.114	.000[n]
	Residual	6590.911	26961	.244		
	Total	33943.542	26975			

ANOVA[bb,cc]

Model		Sum of Squares	df	Mean Square	F	Sig.
15	Regression	27389.818	15	1825.988	7511.551	.000[o]
	Residual	6553.724	26960	.243		
	Total	33943.542	26975			
16	Regression	27418.990	16	1713.687	7080.837	.000[p]
	Residual	6524.552	26959	.242		
	Total	33943.542	26975			
17	Regression	27442.238	17	1614.249	6693.570	.000[q]
	Residual	6501.304	26958	.241		
	Total	33943.542	26975			
18	Regression	27469.701	18	1526.094	6354.640	.000[r]
	Residual	6473.841	26957	.240		
	Total	33943.542	26975			
19	Regression	27484.696	19	1446.563	6037.232	.000[s]
	Residual	6458.846	26956	.240		
	Total	33943.542	26975			
20	Regression	27494.807	20	1374.740	5746.263	.000[t]
	Residual	6448.735	26955	.239		
	Total	33943.542	26975			
21	Regression	27501.226	21	1309.582	5479.161	.000[u]
	Residual	6442.315	26954	.239		
	Total	33943.542	26975			
22	Regression	27506.657	22	1250.303	5235.360	.000[v]
	Residual	6436.885	26953	.239		
	Total	33943.542	26975			
23	Regression	27508.966	23	1196.042	5009.767	.000[w]
	Residual	6434.575	26952	.239		
	Total	33943.542	26975			
24	Regression	27511.208	24	1146.300	4802.913	.000[x]
	Residual	6432.334	26951	.239		
	Total	33943.542	26975			
25	Regression	27512.973	25	1100.519	4612.187	.000[y]
	Residual	6430.569	26950	.239		
	Total	33943.542	26975			
26	Regression	27514.490	26	1058.250	4435.921	.000[z]
	Residual	6429.052	26949	.239		
	Total	33943.542	26975			
27	Regression	27515.723	27	1019.101	4272.481	.000[aa]
	Residual	6427.818	26948	.239		
	Total	33943.542	26975			

a. Predictors: (Constant), CT_AVP

b. Predictors: (Constant), CT_AVP, NO_WASH

c. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT

d. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH

ANOVA[bb,cc]

e. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS

f. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD

g. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO

h. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC

i. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP

j. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS

k. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON

l. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT

m. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS

n. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034

o. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG

p. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID

q. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH

r. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED

s. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1

t. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND

u. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL

v. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST

w. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1

x. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1, HWAY

y. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1, HWAY, BSMT_FIN

z. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1, HWAY, BSMT_FIN, MALL_25

aa. Predictors: (Constant), CT_AVP, NO_WASH, FIRE_MLT, DETACH, BEDS, D_CBD, FIRE_NO, CF_AVINC, PARK_CAP, SENIORS, AIR_CON, IMMIGRNT, UNIVERS, MALE3034, POOL_UG, FAAVKID, BEACH, DIVORCED, HWAY_1, POOL_IND, MALL, THREE_ST, BEACH_1, HWAY, BSMT_FIN, MALL_25, SWAY_1

bb. Dependent Variable: LOG_PRIC

cc. Weighted Least Squares Regression - Weighted by ROOMS

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
1	(Constant)	-.883	.066		-13.312	.000	-1.013	-.753		
	CT_AVP	1.053	.005	.771	198.720	.000	1.043	1.063	1.000	1.000
2	(Constant)	1.209	.059		20.405	.000	1.093	1.325		
	CT_AVP	.855	.005	.626	176.636	.000	.845	.864	.849	1.178
	NO_WASH	.144	.001	.373	105.312	.000	.142	.147	.849	1.178
3	(Constant)	1.978	.060		33.182	.000	1.862	2.095		
	CT_AVP	.794	.005	.581	163.433	.000	.784	.804	.784	1.276
	NO_WASH	.133	.001	.343	98.677	.000	.130	.135	.819	1.221
	FIRE_MLT	.204	.005	.155	45.165	.000	.195	.212	.838	1.193
4	(Constant)	2.241	.058		38.435	.000	2.127	2.355		
	CT_AVP	.767	.005	.561	160.714	.000	.757	.776	.767	1.303
	NO_WASH	.130	.001	.336	99.130	.000	.127	.132	.816	1.225
	FIRE_MLT	.196	.004	.149	44.610	.000	.187	.204	.836	1.196
	DETACH	.121	.003	.125	39.983	.000	.115	.127	.953	1.049
5	(Constant)	2.218	.057		38.918	.000	2.107	2.330		
	CT_AVP	.757	.005	.554	162.166	.000	.748	.766	.765	1.307
	NO_WASH	.104	.001	.268	70.131	.000	.101	.107	.612	1.633
	FIRE_MLT	.191	.004	.146	44.602	.000	.183	.200	.835	1.197
	DETACH	.123	.003	.127	41.519	.000	.117	.129	.953	1.049
	BEDS	5.959E-02	.002	.128	35.433	.000	.056	.063	.687	1.455
6	(Constant)	2.897	.061		47.608	.000	2.778	3.017		
	CT_AVP	.706	.005	.517	143.183	.000	.696	.716	.666	1.502
	NO_WASH	.111	.001	.286	75.012	.000	.108	.114	.595	1.679
	FIRE_MLT	.186	.004	.142	43.947	.000	.177	.194	.834	1.199
	DETACH	.141	.003	.146	47.212	.000	.135	.146	.912	1.096
	BEDS	5.916E-02	.002	.127	35.713	.000	.056	.062	.687	1.455
	D_CBD	-3.058E-03	.000	-.093	-28.897	.000	-.003	-.003	.835	1.198
7	(Constant)	3.439	.062		55.591	.000	3.317	3.560		
	CT_AVP	.670	.005	.490	135.136	.000	.660	.679	.633	1.579
	NO_WASH	.103	.001	.267	70.335	.000	.100	.106	.581	1.722
	FIRE_MLT	.171	.004	.130	41.031	.000	.163	.179	.824	1.213
	DETACH	.122	.003	.127	41.186	.000	.117	.128	.881	1.135
	BEDS	5.712E-02	.002	.123	35.152	.000	.054	.060	.686	1.457
	D_CBD	-3.628E-03	.000	-.110	-34.497	.000	-.004	-.003	.813	1.230
	FIRE_NO	-9.983E-02	.003	-.110	-33.112	.000	-.106	-.094	.752	1.329

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
8	(Constant)	5.476	.095		57.722	.000	5.290	5.662		
	CT_AVP	.495	.008	.363	62.590	.000	.480	.511	.241	4.142
	NO_WASH	.105	.001	.271	72.429	.000	.102	.108	.580	1.725
	FIRE_MLT	.159	.004	.121	38.435	.000	.151	.167	.815	1.227
	DETACH	.123	.003	.127	41.903	.000	.117	.128	.881	1.135
	BEDS	5.795E-02	.002	.124	36.170	.000	.055	.061	.686	1.458
	D_CBD	-4.711E-03	.000	-.143	-42.585	.000	-.005	-.004	.713	1.402
	FIRE_NO	-.101	.003	-.112	-34.091	.000	-.107	-.096	.752	1.329
	CF_AVINC	2.350E-06	.000	.146	28.035	.000	.000	.000	.298	3.352
9	(Constant)	6.047	.096		63.162	.000	5.859	6.235		
	CT_AVP	.448	.008	.328	56.108	.000	.432	.464	.231	4.338
	NO_WASH	9.489E-02	.001	.245	64.656	.000	.092	.098	.546	1.830
	FIRE_MLT	.158	.004	.121	38.910	.000	.150	.166	.815	1.227
	DETACH	.104	.003	.108	35.092	.000	.098	.110	.836	1.196
	BEDS	5.443E-02	.002	.117	34.352	.000	.051	.058	.682	1.467
	D_CBD	-5.694E-03	.000	-.173	-49.685	.000	-.006	-.005	.646	1.547
	FIRE_NO	-8.279E-02	.003	-.091	-27.555	.000	-.089	-.077	.716	1.398
	CF_AVINC	2.699E-06	.000	.168	32.291	.000	.000	.000	.292	3.428
	PARK_CAP	5.255E-02	.002	.103	27.940	.000	.049	.056	.584	1.712
10	(Constant)	6.071	.095		64.174	.000	5.886	6.257		
	CT_AVP	.439	.008	.321	55.594	.000	.423	.454	.230	4.347
	NO_WASH	9.646E-02	.001	.249	66.451	.000	.094	.099	.546	1.833
	FIRE_MLT	.148	.004	.113	36.515	.000	.140	.156	.806	1.240
	DETACH	9.132E-02	.003	.095	30.750	.000	.085	.097	.813	1.231
	BEDS	5.660E-02	.002	.121	36.099	.000	.054	.060	.680	1.471
	D_CBD	-4.703E-03	.000	-.143	-39.298	.000	-.005	-.004	.579	1.728
	FIRE_NO	-8.759E-02	.003	-.097	-29.443	.000	-.093	-.082	.713	1.403
	CF_AVINC	2.822E-06	.000	.175	34.103	.000	.000	.000	.291	3.440
	PARK_CAP	5.721E-02	.002	.112	30.635	.000	.054	.061	.578	1.729
	SENIORS	1.152E-04	.000	.081	25.557	.000	.000	.000	.772	1.295

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
11	(Constant)	6.058	.093		64.818	.000	5.874	6.241		
	CT_AVP	.437	.008	.320	56.055	.000	.422	.453	.230	4.347
	NO_WASH	9.163E-02	.001	.237	63.368	.000	.089	.094	.536	1.864
	FIRE_MLT	.148	.004	.113	37.147	.000	.141	.156	.806	1.240
	DETACH	8.991E-02	.003	.093	30.644	.000	.084	.096	.812	1.231
	BEDS	6.131E-02	.002	.131	39.314	.000	.058	.064	.670	1.492
	D_CBD	-4.860E-03	.000	-.148	-41.053	.000	-.005	-.005	.577	1.733
	FIRE_NO	-7.964E-02	.003	-.088	-26.954	.000	-.085	-.074	.705	1.418
	CF_AVINC	2.804E-06	.000	.174	34.310	.000	.000	.000	.291	3.440
	PARK_CAP	5.117E-02	.002	.100	27.521	.000	.048	.055	.569	1.756
	SENIORS	1.212E-04	.000	.085	27.191	.000	.000	.000	.770	1.298
	AIR_CON	6.561E-02	.003	.076	25.861	.000	.061	.071	.875	1.142
12	(Constant)	5.859	.093		62.743	.000	5.676	6.042		
	CT_AVP	.459	.008	.336	58.622	.000	.443	.474	.225	4.437
	NO_WASH	9.463E-02	.001	.245	65.514	.000	.092	.097	.530	1.886
	FIRE_MLT	.140	.004	.107	34.944	.000	.132	.147	.796	1.257
	DETACH	8.388E-02	.003	.087	28.622	.000	.078	.090	.803	1.245
	BEDS	6.172E-02	.002	.132	39.842	.000	.059	.065	.670	1.492
	D_CBD	-5.083E-03	.000	-.155	-43.025	.000	-.005	-.005	.572	1.750
	FIRE_NO	-8.101E-02	.003	-.089	-27.598	.000	-.087	-.075	.705	1.419
	CF_AVINC	2.253E-06	.000	.140	26.179	.000	.000	.000	.259	3.865
	PARK_CAP	5.669E-02	.002	.111	30.339	.000	.053	.060	.556	1.798
	SENIORS	1.339E-04	.000	.094	29.908	.000	.000	.000	.754	1.327
	AIR_CON	7.056E-02	.003	.081	27.860	.000	.066	.076	.866	1.154
	IMMIGRNT	-2.430E-05	.000	-.061	-19.331	.000	.000	.000	.753	1.329
13	(Constant)	6.225	.094		66.068	.000	6.040	6.410		
	CT_AVP	.432	.008	.316	54.839	.000	.416	.447	.219	4.560
	NO_WASH	9.492E-02	.001	.245	66.249	.000	.092	.098	.530	1.886
	FIRE_MLT	.140	.004	.107	35.323	.000	.132	.148	.796	1.257
	DETACH	8.795E-02	.003	.091	30.193	.000	.082	.094	.800	1.251
	BEDS	6.005E-02	.002	.129	39.033	.000	.057	.063	.669	1.496
	D_CBD	-5.208E-03	.000	-.159	-44.393	.000	-.005	-.005	.570	1.754
	FIRE_NO	-7.011E-02	.003	-.077	-23.713	.000	-.076	-.064	.683	1.464
	CF_AVINC	1.651E-06	.000	.103	18.351	.000	.000	.000	.233	4.295
	PARK_CAP	5.906E-02	.002	.115	31.810	.000	.055	.063	.554	1.805
	SENIORS	9.896E-05	.000	.069	20.891	.000	.000	.000	.662	1.510
	AIR_CON	7.349E-02	.003	.085	29.214	.000	.069	.078	.864	1.158
	IMMIGRNT	-3.824E-05	.000	-.095	-27.116	.000	.000	.000	.588	1.700
	UNIVERS	7.472E-05	.000	.087	21.154	.000	.000	.000	.428	2.339

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
14	(Constant)	6.788	.099		68.243	.000	6.593	6.983		
	CT_AVP	.387	.008	.284	46.934	.000	.371	.404	.197	5.068
	NO_WASH	9.572E-02	.001	.248	67.127	.000	.093	.099	.530	1.888
	FIRE_MLT	.141	.004	.107	35.640	.000	.133	.148	.796	1.257
	DETACH	9.066E-02	.003	.094	31.239	.000	.085	.096	.797	1.254
	BEDS	5.971E-02	.002	.128	39.019	.000	.057	.063	.668	1.496
	D_CBD	-4.676E-03	.000	-.142	-38.685	.000	-.005	-.004	.531	1.882
	FIRE_NO	-6.930E-02	.003	-.077	-23.560	.000	-.075	-.064	.683	1.464
	CF_AVINC	1.554E-06	.000	.097	17.326	.000	.000	.000	.232	4.312
	PARK_CAP	5.754E-02	.002	.112	31.117	.000	.054	.061	.553	1.809
	SENIORS	8.718E-05	.000	.061	18.303	.000	.000	.000	.648	1.543
	AIR_CON	6.979E-02	.003	.081	27.784	.000	.065	.075	.857	1.166
	IMMIGRNT	-2.377E-05	.000	-.059	-14.465	.000	.000	.000	.429	2.333
	UNIVERS	1.096E-04	.000	.128	26.901	.000	.000	.000	.318	3.147
	MALE3034	-2.459E-04	.000	-.076	-16.908	.000	.000	.000	.359	2.789
15	(Constant)	6.736	.099		67.846	.000	6.542	6.931		
	CT_AVP	.392	.008	.287	47.578	.000	.376	.408	.197	5.079
	NO_WASH	9.555E-02	.001	.247	67.191	.000	.093	.098	.530	1.888
	FIRE_MLT	.136	.004	.104	34.403	.000	.128	.144	.788	1.268
	DETACH	8.849E-02	.003	.092	30.519	.000	.083	.094	.794	1.259
	BEDS	5.921E-02	.002	.127	38.783	.000	.056	.062	.668	1.497
	D_CBD	-4.755E-03	.000	-.145	-39.396	.000	-.005	-.005	.530	1.887
	FIRE_NO	-6.811E-02	.003	-.075	-23.208	.000	-.074	-.062	.682	1.466
	CF_AVINC	1.488E-06	.000	.092	16.610	.000	.000	.000	.231	4.328
	PARK_CAP	5.723E-02	.002	.112	31.033	.000	.054	.061	.553	1.810
	SENIORS	8.674E-05	.000	.061	18.261	.000	.000	.000	.648	1.543
	AIR_CON	6.809E-02	.003	.079	27.143	.000	.063	.073	.855	1.170
	IMMIGRNT	-2.406E-05	.000	-.060	-14.680	.000	.000	.000	.429	2.333
	UNIVERS	1.099E-04	.000	.128	27.036	.000	.000	.000	.318	3.147
	MALE3034	-2.352E-04	.000	-.073	-16.195	.000	.000	.000	.357	2.799
	POOL_UG	5.679E-02	.005	.034	12.368	.000	.048	.066	.938	1.066

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
16	(Constant)	6.770	.099		68.308	.000	6.576	6.965		
	CT_AVP	.393	.008	.287	47.752	.000	.376	.409	.197	5.079
	NO_WASH	9.596E-02	.001	.248	67.603	.000	.093	.099	.529	1.890
	FIRE_MLT	.133	.004	.102	33.792	.000	.126	.141	.786	1.272
	DETACH	8.838E-02	.003	.092	30.550	.000	.083	.094	.794	1.259
	BEDS	5.872E-02	.002	.126	38.532	.000	.056	.062	.667	1.498
	D_CBD	-4.469E-03	.000	-.136	-36.271	.000	-.005	-.004	.506	1.975
	FIRE_NO	-6.882E-02	.003	-.076	-23.496	.000	-.075	-.063	.682	1.466
	CF_AVINC	1.516E-06	.000	.094	16.951	.000	.000	.000	.231	4.331
	PARK_CAP	5.847E-02	.002	.114	31.714	.000	.055	.062	.551	1.816
	SENIORS	5.987E-05	.000	.042	11.224	.000	.000	.000	.512	1.955
	AIR_CON	6.865E-02	.003	.079	27.418	.000	.064	.074	.854	1.170
	IMMIGRNT	-1.627E-05	.000	-.041	-9.132	.000	.000	.000	.361	2.772
	UNIVERS	1.147E-04	.000	.134	28.115	.000	.000	.000	.314	3.184
	MALE3034	-2.734E-04	.000	-.084	-18.344	.000	.000	.000	.338	2.960
	POOL_UG	5.548E-02	.005	.033	12.107	.000	.047	.064	.938	1.067
	FAAVKID	-3.601E-02	.003	-.039	-10.979	.000	-.042	-.030	.566	1.766
17	(Constant)	6.856	.099		69.026	.000	6.661	7.050		
	CT_AVP	.387	.008	.283	47.030	.000	.371	.403	.196	5.104
	NO_WASH	9.589E-02	.001	.248	67.671	.000	.093	.099	.529	1.890
	FIRE_MLT	.135	.004	.103	34.125	.000	.127	.142	.785	1.274
	DETACH	8.805E-02	.003	.091	30.487	.000	.082	.094	.794	1.259
	BEDS	5.879E-02	.002	.126	38.642	.000	.056	.062	.667	1.498
	D_CBD	-4.630E-03	.000	-.141	-37.314	.000	-.005	-.004	.497	2.010
	FIRE_NO	-6.937E-02	.003	-.077	-23.720	.000	-.075	-.064	.682	1.467
	CF_AVINC	1.499E-06	.000	.093	16.789	.000	.000	.000	.231	4.333
	PARK_CAP	5.804E-02	.002	.113	31.531	.000	.054	.062	.550	1.817
	SENIORS	5.979E-05	.000	.042	11.229	.000	.000	.000	.512	1.955
	AIR_CON	6.718E-02	.003	.078	26.834	.000	.062	.072	.851	1.175
	IMMIGRNT	-1.939E-05	.000	-.048	-10.728	.000	.000	.000	.350	2.860
	UNIVERS	1.151E-04	.000	.134	28.256	.000	.000	.000	.314	3.184
	MALE3034	-2.600E-04	.000	-.080	-17.404	.000	.000	.000	.335	2.984
	POOL_UG	5.730E-02	.005	.034	12.515	.000	.048	.066	.936	1.068
	FAAVKID	-3.701E-02	.003	-.040	-11.298	.000	-.043	-.031	.566	1.768
	BEACH	-3.363E-02	.003	-.028	-9.818	.000	-.040	-.027	.898	1.113

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
18	(Constant)	6.626	.101		65.333	.000	6.427	6.825		
	CT_AVP	.404	.008	.296	48.304	.000	.388	.420	.189	5.298
	NO_WASH	9.596E-02	.001	.248	67.862	.000	.093	.099	.529	1.890
	FIRE_MLT	.132	.004	.101	33.588	.000	.125	.140	.783	1.277
	DETACH	9.075E-02	.003	.094	31.368	.000	.085	.096	.788	1.269
	BEDS	5.763E-02	.002	.124	37.864	.000	.055	.061	.664	1.506
	D_CBD	-4.497E-03	.000	-.137	-36.134	.000	-.005	-.004	.492	2.031
	FIRE_NO	-6.910E-02	.003	-.076	-23.676	.000	-.075	-.063	.682	1.467
	CF_AVINC	1.545E-06	.000	.096	17.322	.000	.000	.000	.230	4.343
	PARK_CAP	6.000E-02	.002	.117	32.503	.000	.056	.064	.545	1.835
	SENIORS	2.984E-05	.000	.021	4.967	.000	.000	.000	.400	2.498
	AIR_CON	6.815E-02	.003	.079	27.260	.000	.063	.073	.850	1.176
	IMMIGRNT	-1.511E-05	.000	-.038	-8.178	.000	.000	.000	.333	3.001
	UNIVERS	1.017E-04	.000	.119	23.918	.000	.000	.000	.287	3.485
	MALE3034	-3.431E-04	.000	-.106	-20.408	.000	.000	.000	.263	3.796
	POOL_UG	5.518E-02	.005	.033	12.066	.000	.046	.064	.934	1.070
	FAAVKID	-3.304E-02	.003	-.036	-10.043	.000	-.039	-.027	.558	1.791
	BEACH	-3.917E-02	.003	-.032	-11.329	.000	-.046	-.032	.878	1.139
	DIVORCED	2.183E-04	.000	.052	10.694	.000	.000	.000	.304	3.285
19	(Constant)	6.647	.101		65.594	.000	6.449	6.846		
	CT_AVP	.403	.008	.295	48.206	.000	.386	.419	.189	5.299
	NO_WASH	9.596E-02	.001	.248	67.942	.000	.093	.099	.529	1.890
	FIRE_MLT	.133	.004	.101	33.725	.000	.125	.140	.783	1.277
	DETACH	9.142E-02	.003	.095	31.622	.000	.086	.097	.787	1.270
	BEDS	5.749E-02	.002	.123	37.816	.000	.055	.060	.664	1.506
	D_CBD	-4.548E-03	.000	-.139	-36.536	.000	-.005	-.004	.491	2.036
	FIRE_NO	-6.912E-02	.003	-.076	-23.711	.000	-.075	-.063	.682	1.467
	CF_AVINC	1.541E-06	.000	.096	17.298	.000	.000	.000	.230	4.343
	PARK_CAP	5.996E-02	.002	.117	32.515	.000	.056	.064	.545	1.835
	SENIORS	2.611E-05	.000	.018	4.338	.000	.000	.000	.398	2.513
	AIR_CON	6.915E-02	.003	.080	27.657	.000	.064	.074	.848	1.179
	IMMIGRNT	-1.471E-05	.000	-.037	-7.972	.000	.000	.000	.333	3.003
	UNIVERS	1.021E-04	.000	.119	24.032	.000	.000	.000	.287	3.486
	MALE3034	-3.466E-04	.000	-.107	-20.628	.000	.000	.000	.263	3.798
	POOL_UG	5.564E-02	.005	.033	12.181	.000	.047	.065	.934	1.070
	FAAVKID	-3.337E-02	.003	-.036	-10.155	.000	-.040	-.027	.558	1.791
	BEACH	-3.730E-02	.003	-.031	-10.777	.000	-.044	-.031	.874	1.144
	DIVORCED	2.217E-04	.000	.052	10.874	.000	.000	.000	.304	3.287
	HWAY_1	-2.293E-02	.003	-.021	-7.911	.000	-.029	-.017	.981	1.019

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
20	(Constant)	6.652	.101		65.687	.000	6.453	6.850		
	CT_AVP	.403	.008	.295	48.216	.000	.386	.419	.189	5.299
	NO_WASH	9.545E-02	.001	.247	67.526	.000	.093	.098	.528	1.896
	FIRE_MLT	.131	.004	.100	33.399	.000	.124	.139	.781	1.280
	DETACH	9.138E-02	.003	.095	31.632	.000	.086	.097	.787	1.270
	BEDS	5.756E-02	.002	.123	37.892	.000	.055	.061	.664	1.506
	D_CBD	-4.569E-03	.000	-.139	-36.720	.000	-.005	-.004	.491	2.037
	FIRE_NO	-6.938E-02	.003	-.077	-23.815	.000	-.075	-.064	.681	1.467
	CF_AVINC	1.531E-06	.000	.095	17.190	.000	.000	.000	.230	4.344
	PARK_CAP	5.979E-02	.002	.117	32.446	.000	.056	.063	.545	1.836
	SENIORS	2.570E-05	.000	.018	4.273	.000	.000	.000	.398	2.514
	AIR_CON	6.920E-02	.002	.080	27.696	.000	.064	.074	.848	1.179
	IMMIGRNT	-1.481E-05	.000	-.037	-8.030	.000	.000	.000	.333	3.003
	UNIVERS	1.027E-04	.000	.120	24.187	.000	.000	.000	.287	3.487
	MALE:I034	-3.456E-04	.000	-.107	-20.584	.000	.000	.000	.263	3.799
	POOL_UG	5.672E-02	.005	.034	12.418	.000	.048	.066	.933	1.072
	FAAVKID	-3.312E-02	.003	-.036	-10.086	.000	-.040	-.027	.558	1.791
	BEACH	-3.793E-02	.003	-.031	-10.963	.000	-.045	-.031	.873	1.145
	DIVORCED	2.217E-04	.000	.052	10.881	.000	.000	.000	.304	3.287
	HWAY_1	-2.276E-02	.003	-.021	-7.856	.000	-.028	-.017	.981	1.019
	POOL_IND	.155	.024	.017	6.501	.000	.108	.201	.985	1.015

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
21	(Constant)	6.729	.102		65.776	.000	6.528	6.929		
	CT_AVP	.397	.008	.290	47.125	.000	.380	.413	.185	5.394
	NO_WASH	9.556E-02	.001	.247	67.627	.000	.093	.098	.527	1.896
	FIRE_MLT	.131	.004	.100	33.361	.000	.124	.139	.781	1.280
	DETACH	9.041E-02	.003	.094	31.248	.000	.085	.096	.784	1.275
	BEDS	5.790E-02	.002	.124	38.095	.000	.055	.061	.663	1.509
	D_CBD	-4.639E-03	.000	-.141	-37.083	.000	-.005	-.004	.485	2.062
	FIRE_NO	-6.961E-02	.003	-.077	-23.904	.000	-.075	-.064	.681	1.468
	CF_AVINC	1.586E-06	.000	.099	17.692	.000	.000	.000	.227	4.407
	PARK_CAP	5.958E-02	.002	.116	32.338	.000	.056	.063	.544	1.837
	SENIORS	2.456E-05	.000	.017	4.083	.000	.000	.000	.397	2.517
	AIR_CON	6.904E-02	.002	.080	27.644	.000	.064	.074	.848	1.179
	IMMIGRNT	-1.379E-05	.000	-.034	-7.438	.000	.000	.000	.329	3.037
	UNIVERS	1.026E-04	.000	.120	24.191	.000	.000	.000	.287	3.487
	MALE3034	-3.558E-04	.000	-.110	-21.059	.000	.000	.000	.260	3.852
	POOL_UG	5.686E-02	.005	.034	12.455	.000	.048	.066	.933	1.072
	FAAVKID	-3.392E-02	.003	-.037	-10.322	.000	-.040	-.027	.557	1.795
	BEACH	-4.020E-02	.003	-.033	-11.533	.000	-.047	-.033	.859	1.164
	DIVORCED	2.262E-04	.000	.053	11.096	.000	.000	.000	.304	3.293
	HWAY_1	-2.116E-02	.003	-.020	-7.267	.000	-.027	-.015	.970	1.031
	POOL_IND	.154	.024	.017	6.479	.000	.107	.201	.985	1.015
	MALL	-1.229E-02	.002	-.014	-5.183	.000	-.017	-.008	.910	1.099

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
22	(Constant)	6.738	.102		65.884	.000	6.538	6.939		
	CT_AVP	.396	.008	.290	47.057	.000	.380	.413	.185	5.396
	NO_WASH	9.509E-02	.001	.246	67.158	.000	.092	.098	.525	1.905
	FIRE_MLT	.131	.004	.100	33.187	.000	.123	.138	.780	1.282
	DETACH	9.195E-02	.003	.095	31.596	.000	.086	.098	.775	1.291
	BEDS	5.622E-02	.002	.121	36.047	.000	.053	.059	.629	1.590
	D_CBD	-4.525E-03	.000	-.138	-35.542	.000	-.005	-.004	.468	2.137
	FIRE_NO	-6.913E-02	.003	-.076	-23.736	.000	-.075	-.063	.681	1.469
	CF_AVINC	1.571E-06	.000	.098	17.522	.000	.000	.000	.227	4.412
	PARK_CAP	6.045E-02	.002	.118	32.664	.000	.057	.064	.539	1.855
	SENIORS	2.722E-05	.000	.019	4.507	.000	.000	.000	.394	2.538
	AIR_CON	6.973E-02	.003	.080	27.884	.000	.065	.075	.845	1.183
	IMMIGRNT	-1.286E-05	.000	-.032	-6.899	.000	.000	.000	.326	3.071
	UNIVERS	1.026E-04	.000	.120	24.182	.000	.000	.000	.287	3.488
	MALE3034	-3.602E-04	.000	-.111	-21.295	.000	.000	.000	.259	3.863
	POOL_UG	5.741E-02	.005	.035	12.576	.000	.048	.066	.932	1.073
	FAAVKID	-3.352E-02	.003	-.036	-10.201	.000	-.040	-.027	.557	1.796
	BEACH	-4.029E-02	.003	-.033	-11.563	.000	-.047	-.033	.859	1.164
	DIVORCED	2.177E-04	.000	.051	10.645	.000	.000	.000	.301	3.318
	HWAY_1	-2.090E-02	.003	-.019	-7.178	.000	-.027	-.015	.970	1.031
	POOL_IND	.155	.024	.017	6.520	.000	.108	.202	.985	1.015
	MALL	-1.329E-02	.002	-.016	-5.584	.000	-.018	-.009	.903	1.107
	THREE_ST	2.829E-02	.006	.014	4.769	.000	.017	.040	.761	1.314

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
23	(Constant)	6.745	.102		65.944	.000	6.544	6.945		
	CT_AVP	.396	.008	.290	46.996	.000	.379	.412	.185	5.398
	NO_WASH	9.501E-02	.001	.246	67.107	.000	.092	.098	.525	1.906
	FIRE_MLT	.130	.004	.099	33.125	.000	.123	.138	.780	1.282
	DETACH	9.166E-02	.003	.095	31.484	.000	.086	.097	.774	1.292
	BEDS	5.617E-02	.002	.120	36.018	.000	.053	.059	.629	1.590
	D_CBD	-4.535E-03	.000	-.138	-35.614	.000	-.005	-.004	.468	2.138
	FIRE_NO	-6.901E-02	.003	-.076	-23.695	.000	-.075	-.063	.680	1.470
	CF_AVINC	1.572E-06	.000	.098	17.542	.000	.000	.000	.227	4.412
	PARK_CAP	6.054E-02	.002	.118	32.713	.000	.057	.064	.539	1.855
	SENIORS	2.865E-05	.000	.020	4.731	.000	.000	.000	.392	2.553
	AIR_CON	6.979E-02	.003	.081	27.913	.000	.065	.075	.845	1.183
	IMMIGRNT	-1.277E-05	.000	-.032	-6.854	.000	.000	.000	.326	3.072
	UNIVERS	1.027E-04	.000	.120	24.212	.000	.000	.000	.287	3.488
	MALE3034	-3.587E-04	.000	-.111	-21.204	.000	.000	.000	.259	3.866
	POOL_UG	5.762E-02	.005	.035	12.622	.000	.049	.067	.932	1.073
	FAAVKID	-3.341E-02	.003	-.036	-10.169	.000	-.040	-.027	.557	1.797
	BEACH	-4.823E-02	.004	-.040	-11.167	.000	-.057	-.040	.559	1.788
	DIVORCED	2.119E-04	.000	.050	10.318	.000	.000	.000	.299	3.346
	HWAY_1	-2.086E-02	.003	-.019	-7.166	.000	-.027	-.015	.970	1.031
	POOL_IND	.154	.024	.017	6.497	.000	.108	.201	.985	1.016
	MALL	-1.311E-02	.002	-.015	-5.508	.000	-.018	-.008	.903	1.108
	THREE_ST	2.870E-02	.006	.015	4.836	.000	.017	.040	.761	1.315
	BEACH_1	1.897E-02	.006	.011	3.110	.002	.007	.031	.595	1.681

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
24	(Constant)	6.726	.102		65.654	.000	6.525	6.927		
	CT_AVP	.397	.008	.291	47.100	.000	.380	.413	.185	5.414
	NO_WASH	9.500E-02	.001	.246	67.108	.000	.092	.098	.525	1.906
	FIRE_MLT	.130	.004	.099	33.107	.000	.123	.138	.780	1.283
	DETACH	9.171E-02	.003	.095	31.505	.000	.086	.097	.774	1.292
	BEDS	5.612E-02	.002	.120	35.993	.000	.053	.059	.629	1.591
	D_CBD	-4.528E-03	.000	-.138	-35.558	.000	-.005	-.004	.467	2.139
	FIRE_NO	-6.906E-02	.003	-.076	-23.717	.000	-.075	-.063	.680	1.470
	CF_AVINC	1.566E-06	.000	.097	17.464	.000	.000	.000	.227	4.415
	PARK_CAP	6.050E-02	.002	.118	32.695	.000	.057	.064	.539	1.856
	SENIORS	2.938E-05	.000	.021	4.850	.000	.000	.000	.391	2.557
	AIR_CON	6.957E-02	.003	.080	27.816	.000	.065	.074	.844	1.184
	IMMIGRNT	-1.317E-05	.000	-.033	-7.053	.000	.000	.000	.324	3.087
	UNIVERS	1.022E-04	.000	.119	24.088	.000	.000	.000	.286	3.492
	MALE3034	-3.571E-04	.000	-.110	-21.104	.000	.000	.000	.258	3.870
	POOL_UG	5.753E-02	.005	.035	12.605	.000	.049	.066	.932	1.073
	FAAVKID	-3.336E-02	.003	-.036	-10.155	.000	-.040	-.027	.557	1.797
	BEACH	-5.024E-02	.004	-.041	-11.503	.000	-.059	-.042	.547	1.829
	DIVORCED	2.114E-04	.000	.050	10.296	.000	.000	.000	.299	3.346
	HWAY_1	-2.648E-02	.003	-.024	-7.697	.000	-.033	-.020	.694	1.440
	POOL_IND	.155	.024	.017	6.504	.000	.108	.201	.985	1.016
	MALL	-1.355E-02	.002	-.016	-5.685	.000	-.018	-.009	.899	1.112
	THREE_ST	2.896E-02	.006	.015	4.880	.000	.017	.041	.760	1.315
	BEACH_1	2.101E-02	.006	.012	3.424	.001	.009	.033	.588	1.701
	HWAY	8.461E-03	.003	.010	3.065	.002	.003	.014	.675	1.482

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
25	(Constant)	6.690	.103		64.762	.000	6.487	6.892		
	CT_AVP	.400	.008	.293	47.101	.000	.383	.416	.182	5.489
	NO_WASH	9.450E-02	.001	.244	66.217	.000	.092	.097	.516	1.938
	FIRE_MLT	.129	.004	.099	32.608	.000	.122	.137	.775	1.290
	DETACH	9.175E-02	.003	.095	31.523	.000	.086	.097	.774	1.293
	BEDS	5.661E-02	.002	.121	36.070	.000	.054	.060	.620	1.612
	D_CBD	-4.510E-03	.000	-.137	-35.374	.000	-.005	-.004	.466	2.145
	FIRE_NO	-6.912E-02	.003	-.076	-23.739	.000	-.075	-.063	.680	1.470
	CF_AVINC	1.545E-06	.000	.096	17.167	.000	.000	.000	.225	4.448
	PARK_CAP	6.069E-02	.002	.118	32.779	.000	.057	.064	.538	1.858
	SENIORS	2.902E-05	.000	.020	4.788	.000	.000	.000	.391	2.559
	AIR_CON	6.857E-02	.003	.079	27.127	.000	.064	.074	.826	1.210
	IMMIGRNT	-1.361E-05	.000	-.034	-7.260	.000	.000	.000	.322	3.109
	UNIVERS	1.021E-04	.000	.119	24.077	.000	.000	.000	.286	3.493
	MALE3034	-3.515E-04	.000	-.108	-20.619	.000	.000	.000	.255	3.927
	POOL_UG	5.662E-02	.005	.034	12.372	.000	.048	.066	.927	1.079
	FAAVKID	-3.310E-02	.003	-.036	-10.074	.000	-.040	-.027	.556	1.798
	BEACH	-4.978E-02	.004	-.041	-11.390	.000	-.058	-.041	.546	1.832
	DIVORCED	2.103E-04	.000	.050	10.242	.000	.000	.000	.299	3.347
	HWAY_1	-2.647E-02	.003	-.024	-7.695	.000	-.033	-.020	.694	1.440
	POOL_IND	.155	.024	.017	6.503	.000	.108	.201	.985	1.016
	MALL	-1.357E-02	.002	-.016	-5.694	.000	-.018	-.009	.899	1.112
	THREE_ST	2.958E-02	.006	.015	4.982	.000	.018	.041	.759	1.317
	BEACH_1	2.088E-02	.006	.012	3.404	.001	.009	.033	.588	1.701
	HWAY	8.363E-03	.003	.010	3.029	.002	.003	.014	.674	1.483
	BSMT_FIN	6.495E-03	.002	.008	2.720	.007	.002	.011	.890	1.124

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
26	(Constant)	6.688	.103		64.746	.000	6.485	6.890		
	CT_AVP	.400	.008	.293	47.128	.000	.383	.416	.182	5.489
	NO_WASH	9.450E-02	.001	.244	66.225	.000	.092	.097	.516	1.938
	FIRE_MLT	.130	.004	.099	32.832	.000	.122	.137	.775	1.290
	DETACH	9.189E-02	.003	.095	31.569	.000	.086	.098	.773	1.293
	BEDS	5.665E-02	.002	.122	36.098	.000	.054	.060	.620	1.612
	D_CBD	-4.531E-03	.000	-.138	-35.466	.000	-.005	-.004	.464	2.154
	FIRE_NO	-6.910E-02	.003	-.076	-23.733	.000	-.075	-.063	.680	1.470
	CF_AVINC	1.544E-06	.000	.096	17.163	.000	.000	.000	.225	4.448
	PARK_CAP	6.071E-02	.002	.119	32.791	.000	.057	.064	.538	1.858
	SENIORS	2.925E-05	.000	.020	4.826	.000	.000	.000	.391	2.559
	AIR_CON	6.837E-02	.003	.079	27.036	.000	.063	.073	.826	1.211
	IMMIGRNT	-1.361E-05	.000	-.034	-7.262	.000	.000	.000	.322	3.109
	UNIVERS	1.024E-04	.000	.120	24.127	.000	.000	.000	.286	3.494
	MALE3034	-3.522E-04	.000	-.109	-20.659	.000	.000	.000	.255	3.928
	POOL_UG	5.661E-02	.005	.034	12.371	.000	.048	.066	.927	1.079
	FAAVKID	-3.282E-02	.003	-.036	-9.983	.000	-.039	-.026	.556	1.800
	BEACH	-4.972E-02	.004	-.041	-11.376	.000	-.058	-.041	.546	1.832
	DIVORCED	2.092E-04	.000	.049	10.184	.000	.000	.000	.299	3.349
	HWAY_1	-2.673E-02	.003	-.025	-7.768	.000	-.033	-.020	.694	1.442
	POOL_IND	.154	.024	.017	6.495	.000	.108	.201	.985	1.016
	MALL	-1.595E-02	.003	-.019	-6.223	.000	-.021	-.011	.778	1.285
	THREE_ST	2.946E-02	.006	.015	4.962	.000	.018	.041	.759	1.317
	BEACH_1	2.075E-02	.006	.012	3.382	.001	.009	.033	.588	1.701
	HWAY	7.609E-03	.003	.009	2.740	.006	.002	.013	.667	1.500
	BSMT_FIN	6.411E-03	.002	.008	2.684	.007	.002	.011	.890	1.124
	MALL_25	1.004E-02	.004	.007	2.522	.012	.002	.018	.816	1.225

Coefficients[a,b]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		Collinearity Statistics	
		B	Std. Error	Beta			Lower Bound	Upper Bound	Tolerance	VIF
27	(Constant)	6.684	.103		64.705	.000	6.481	6.886		
	CT_AVP	.400	.008	.293	47.119	.000	.383	.416	.182	5.489
	NO_WASH	9.451E-02	.001	.244	66.236	.000	.092	.097	.516	1.938
	FIRE_MLT	.129	.004	.099	32.781	.000	.122	.137	.775	1.291
	DETACH	9.207E-02	.003	.095	31.622	.000	.086	.098	.773	1.294
	BEDS	5.669E-02	.002	.122	36.124	.000	.054	.060	.620	1.612
	D_CBD	-4.424E-03	.000	-.135	-32.499	.000	-.005	-.004	.409	2.446
	FIRE_NO	-6.903E-02	.003	-.076	-23.709	.000	-.075	-.063	.680	1.470
	CF_AVINC	1.551E-06	.000	.096	17.230	.000	.000	.000	.225	4.453
	PARK_CAP	6.085E-02	.002	.119	32.852	.000	.057	.064	.537	1.860
	SENIORS	2.964E-05	.000	.021	4.889	.000	.000	.000	.390	2.561
	AIR_CON	6.875E-02	.003	.079	27.130	.000	.064	.074	.822	1.217
	IMMIGRNT	-1.270E-05	.000	-.032	-6.631	.000	.000	.000	.308	3.250
	UNIVERS	1.012E-04	.000	.118	23.678	.000	.000	.000	.282	3.546
	MALE3034	-3.544E-04	.000	-.109	-20.755	.000	.000	.000	.254	3.941
	POOL_UG	5.685E-02	.005	.034	12.422	.000	.048	.066	.927	1.079
	FAAVKID	-3.256E-02	.003	-.035	-9.900	.000	-.039	-.026	.555	1.802
	BEACH	-4.930E-02	.004	-.040	-11.271	.000	-.058	-.041	.545	1.836
	DIVORCED	2.043E-04	.000	.048	9.892	.000	.000	.000	.295	3.386
	HWAY_1	-2.614E-02	.003	-.024	-7.577	.000	-.033	-.019	.690	1.450
	POOL_IND	.155	.024	.017	6.514	.000	.108	.201	.985	1.016
	MALL	-1.631E-02	.003	-.019	-6.352	.000	-.021	-.011	.775	1.290
	THREE_ST	2.813E-02	.006	.014	4.716	.000	.016	.040	.752	1.330
	BEACH_1	2.243E-02	.006	.013	3.631	.000	.010	.035	.579	1.726
	HWAY	8.049E-03	.003	.009	2.892	.004	.003	.014	.663	1.507
	BSMT_FIN	6.731E-03	.002	.008	2.814	.005	.002	.011	.887	1.128
	MALL_25	1.010E-02	.004	.007	2.537	.011	.002	.018	.816	1.225
	SWAY_1	9.129E-03	.004	.008	2.274	.023	.001	.017	.615	1.625

a. Dependent Variable: LOG_PRIC

b. Weighted Least Squares Regression - Weighted by ROOMS

Residuals Statistics[b,c]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	11.3196	14.5143	12.2424	.3642	26976
Std. Predicted Value[a]	.	.	.	.	0
Standard Error of Predicted Value	3.214E-03	2.602E-02	5.680E-03	1.444E-03	26976
Adjusted Predicted Value	11.3197	14.5220	12.2424	.3642	26976
Residual	-2.1509	1.3813	-4.5826E-03	.1809	26976
Std. Residual[a]	.	.	.	.	0
Stud. Residual	-8.467	9.767	-.012	1.000	26976
Deleted Residual	-2.1523	1.3839	-4.5855E-03	.1812	26976
Stud. Deleted Residual	-8.478	9.784	-.012	1.000	26976
Mahal. Distance	3.353	2056.197	26.999	35.495	26976
Cook's Distance	.000	.069	.000	.001	26976
Centered Leverage Value	.000	.076	.001	.001	26976

a. Not computed for Weighted Least Squares regression.

b. Dependent Variable: LOG_PRIC

c. Weighted Least Squares Regression - Weighted by ROOMS

Variable	Code	Description	Variable	Code	Description
TYPE	A	Attached/Row/Street townhouse	GARAGE	2	Four Attached
	B	Business		3	Four Built-in
	D	Detached		4	Four Detached
	F	Link		5	Five Attached
	G	Cottage		6	Five Built-in
	J	Duplex		7	Five Detached
	K	Triplex		8	1 1/2 Attached
	L	Farm		A	Carport Double
	M	Multiplex		B	Carport Tandem
	N	Fourplex		C	Carport
	O	Other		D	Double Attached
	R	Rural residential		E	1 1/2 Detached
	S	Semi-Detached		H	Oversized Attached
	V	Vacant Land		J	Oversized Detached
	X	Mobile/Trailer		K	Single Built-in
	Y	Store with Apt/Office		L	Double Built-in
				M	Triple Built-in
STYLE	0	Other		N	None
	1	Bungalow		O	Other
	2	2-Storey		P	Tandem
	3	3-Storey		Q	1 1/2 Built-in
	4	Backsplit (All levels)		R	Oversized Built-in
	5	Sidesplit (All levels)		S	Single Attached
	6	Multilevel		T	Triple Attached
	7	1 1/2 Storey		X	Single Detached
	A	Backsplit (3 level)		Y	Double Detached
	B	Backsplit (4 level)		Z	Triple Detached
	C	Backsplit (5 level)			
	D	Sidesplit (3 level)	DRIVE	C	Circular
	E	Sidesplit (4 level)		D	Private Double
	F	Sidesplit (5 level)		F	Facilities
	H	Frontsplit		L	Lane
	K	Raised Bungalow		M	Mutual
	M	2 1/2-Storey		N	None
				O	Other
				P	Private
				R	Right-of-way
				Y	Front Yard (Legal)
EXTERIOR	A	Aluminum Siding	BASEMENT	A	Apartment
	B	Brick		C	Crawlspace
	C	Concrete		D	Partial Basement
	F	Brick Front		F	Finished
	G	Shingle		H	Half
	L	InsulBrick		K	Walk-up
	M	Metal/Steel Siding		L	Full
	O	Other		N	None
	P	Stucco (Plaster)		O	Other
	S	Stone		P	Partially Finished
	V	Vinyl Siding		S	Separate Entrance
	W	Wood		U	Unfinished
				W	Walk-out

HEAT	0	Other	FIREPLACE	M	Multiple
	1	Hot Water Oil		N	None
	2	Forced Air Oil		O	Other
	3	Hot Water Gas		R	Roughed in
	4	Forced Air Gas		Y	Yes
	5	Electric Baseboard			
	6	Forced Air Electric	CAC	N	No
	7	Electric Radiant	Centralised Air	Y	Yes
	8	Hot Water Electric	Conditioning		
	W	Wood-Burning			
POOL	A	Above-ground			
	H	Indoor			
	I	Inground			
	N	None			