An Investigation into the Household and Resident Composition of Higher Density Residential Districts in the Greater Toronto Area

by

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Author's Declaration

I hereby declare that I am the sole author of this thesis. This is a true copy of the thesis, including any required final revisions, as accepted by my examiners.

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Abstract

The intensification of existing urban areas has become a common strategy used by planners to combat the negative aspects associated with unrestrained urban growth. This paper investigates the cultural and socio-economic characteristics of higher density households and residents of both owned and rented tenures in the Greater Toronto Area's three constituent urban zones, the central city, the inner suburbs and the outer suburbs, between 2001 and 2006. Canada census data at the dissemination area level is used to produce descriptive statistics for the 100 variables included in the analysis. Although research relating to higher density housing is abundant, the consideration and affirmation of higher density housing sub-markets in the Greater Toronto Area based on location and tenure makes this study unique. It becomes clear that the diversity of the higher density housing market must be regarded during the planning process. The findings will be useful to planners for the purposes of infrastructure planning, community planning and aid in the implementation of urban intensification strategies in the Greater Toronto Area.

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1.0 Introduction

The idea of creating a compact city through intensification has been a common strategy among planners in an effort to reduce the amount of land consumed through urban expansion. Provincial legislation in Ontario is mandating municipalities accommodate a greater proportion of its growth through the intensification of existing built-up areas (Ministry of Public Infrastructure Renewal, 2005). This, along with increased population growth and higher demand, has resulted in higher density residential development occurring throughout the Greater Toronto Area (GTA), including the central city, inner suburbs and outer suburbs. The outer suburbs surrounding the City of Toronto have traditionally been the domain of the single family detached home, however higher density development has emerged as a significant presence here as well. The form this higher density development has taken on is often, and perhaps most visibly, that of high rise condominium apartments, but also includes low rise housing such as town homes, other attached homes and low rise condominium apartments. All of these higher density housing types are available under both owned and rented tenures. At present, Toronto is considered to be the largest condominium market in North America (Toronto City Planning, Policy and Research Department, 2007). This type of higher density development activity is generally applauded by planners, environmentalists and others as a viable strategy of achieving a more sustainable urban environment.

The higher density housing market in the GTA is complex and has been especially active over the past several years. An understanding of the characteristics of the residents occupying these higher density dwellings is important for several reasons. It will help to assess demand for particular forms of higher density housing in different parts of the city, provide insight on how to accommodate residents' needs more appropriately, assist in planning communities with a preferred mix of residents, aid in infrastructure planning and finally, may allow for the forecasting of future trends related to higher density housing. "The built city changes only slowly, but the households in those buildings change all the time. In economic language, a somewhat fixed supply of housing adapts constantly to shifting demand" (Metro Planning, 1996). Numerous studies that examine the profile of higher density and other urban residents have been undertaken. However, due to the dynamic nature of the higher density housing market in the GTA, updated and targeted research will prove to be valuable.

1.1 Goal

The goal of this research study is to provide insight into the household and resident composition of the higher density housing market in the GTA, examining its evolution from 2001 to 2006 in an effort to evaluate trends in the household and resident profiles of this sector of the housing market, using this information to provide suggestions for improving the implementation of urban intensification strategies in the GTA.

1.2 Objectives

Objectives to achieve the stated goal include the following:

(1) To identify all census dissemination areas in the GTA's three component geographic areas, including the central city, the inner suburbs and the outer suburbs, that primarily contain higher density housing forms and that primarily maintain a distinct type of housing tenure, either owned or rented dwellings;

(2) To obtain demographic data from the 2001 and 2006 Canada Censuses for all residents of these higher density dissemination areas;

(3) To obtain demographic data from the 2001 and 2006 Canada Censuses for the general population of the GTA and its three component geographic areas including the central city, the inner suburbs and the outer suburbs, to be used as comparable groups;

(4) To identify the relevant variables representing household and resident characteristics;

(5) To analyze the data to identify, evaluate and forecast relationships and patterns among the household and resident characteristics of those living in primarily higher density housing in the GTA; and

(6) To make recommendations for the implementation of urban intensification strategies in the GTA.

1.3 Research Questions

The research questions that are considered throughout the study in an effort to maintain sight of its goal and objectives are outlined below. Each of the research questions corresponds to the goal and at least one of the objectives. They include questions related to housing, household and personal characteristics of residents, and overcoming related challenges.

- What is the location of the dissemination areas in the GTA that are relatively homogenous based on a higher density type of dwelling, as well as according to tenure?
- What is the household and resident profile of these dissemination areas?
- What is the household and resident profile of the general population of the GTA and its three component areas, the central city, inner suburbs and outer suburbs?
- Does the household and resident profile of higher density districts differ from that of the general population?
- Are the residents of higher density dissemination areas in the GTA a homogenous group or do they differ based on their location of residence in the three urban zones and whether they live in a rented or owned dwelling?
- Does the household and resident profile of higher density districts appear to be changing over time and is there a recognizable pattern?

- How can the answers to the above questions be applied to planning problems?

Answers to each of these research questions contribute to the attempt to develop a complete and valuable demographic and socio-economic profile of the households and residents of higher density housing in the GTA.

1.4 Hypothesis

The hypothesis for this research study is based on the indications of prior research and the inferences made from these earlier studies. It will be tested by the analysis process used in this research study. Considering the results of the Toronto City Planning, Policy and Research Department (2007) study and the Metropolitan Toronto Planning Department (1994) study, it is anticipated that there will be extensive differences between the characteristics of higher density households and residents in the central city, inner suburbs and outer suburbs of the GTA and also between the general population of the GTA. Furthermore, by taking into account the results of the Canada Mortgage and Housing Corporation (September, 2008) report and the Toronto Urban Development Service's (2000) study, a comparison of the characteristics of households and residents in owned and rented higher density districts in the three urban zones is expected to provide results indicating equally pronounced differences. Differences in characteristics such as a younger age, greater numbers of immigrants, lower household income and smaller household size among higher density districts in general are expected to be particularly apparent, considering the results of the

studies noted above. Furthermore, it is expected that the proportion of immigrants among higher density rental housing will be greater than among owned higher density housing. However, it remains difficult to make a comprehensive hypothesis on the nature of these differences among the tenure and location based sub-markets within the larger higher density market at this point. This will be investigated as part of this research study. Nevertheless, it is anticipated that the emergence of higher density housing sub-markets within the GTA, based on location and tenure, will become apparent, based on the existence of demographic diversity among the higher density housing market suggested by the studies noted above. Finally, this study is expected to yield results confirming previous findings, such as those of the Metropolitan Toronto Planning Department (1994) study, indicating the existence of a higher density housing population within the GTA that is distinct from the general population as a whole.

1.5 Summary of Research Process

The research process used in this study will be comprised of eight steps. Each step builds on the previous one and the inclusion of all steps in sequence is essential to successfully reaching the goal and objectives of this study. The research steps include:

(1) Literature review

(2) Definition of goal and objectives

(3) Definition of research methodology

(4) Sample selection

(5) Data collection

(6) Transfer and consolidation of raw data into database

(7) Data analysis and results

(8) Conclusions

2.0 Literature Review

A survey of the literature related to the goal and objectives of this research study will provide the foundations on which this study is based. The review of this key literature offers a background into the subject matter involved, explains the study's relevance and context, and will provide the rationale for its process and structure. The content of the literature review is diverse and includes both recent and older sources that are relevant to this study for the reasons stated above. It should be noted that the majority of this literature review was undertaken prior to the onset of the economic slowdown arising in the fall of 2008. These current economic conditions have created uncertainty in the housing market, likely changing prior expectations, however they are not reflected in the literature review. The literature review has five major components. The literature relating to the compact city and the strategies used by governments in an effort to achieve it are outlined in the first part of this section. The important role of housing is also explained. Secondly, the status and environment of condominium housing in the GTA and other major urban centers is reviewed. Thirdly, the rental housing market in the GTA and other major urban centers is examined. Furthermore, studies that have investigated the attitude, preferences and future plans of higher density residents are examined. Finally, research relating to the demographic and socio-economic characteristics of higher density housing residents is reviewed and considered as a potential model for this study.

2.1 The Compact City and Housing Policy

There has been a strong interest among planners and researchers regarding the relationship between urban form and sustainability. The development of the compact city is considered by Jabareen (2006) to be an efficient strategy in reducing the amount of sprawling urban areas, thereby preserving the natural environment and creating a more livable and sustainable city. Furthermore, Brueckner (2000) has identified the negative aspects of urban sprawl and suggests that compact urban areas contribute to social and economic diversity and vitality. In addition, he claims that the concentration of related urban activities such as traffic and industry have various economic, environmental and social benefits. Smart growth principles, which include encouraging greater density through the intensification of existing urban areas, mixed use development, transit orientation and open space systems, have generally provided the basis for the strategy for achieving a more compact city (Daniels and Lapping, 2005).

Trying to reach the goal of sustainable development by creating compact cities through intensification is now a common strategy accepted by governments throughout the world (Canada Mortgage and Housing Corporation, December, 2005). The government of Ontario has taken an active approach in attempting to guide the growth of the province and its municipalities. Ontario provincial legislation gives priority to compact built form, general redevelopment, brownfield redevelopment and greater urban intensification. Through the Places

to Grow Act, 2005, the Province acquires the power to designate geographical growth areas, and to develop Growth Plans for those designated areas that reflect the needs and future projections of the different regions of the province and the province as a whole (Ministry of Public Infrastructure Renewal, 2005).

Figure 2.1 illustrates the urban centers in the Greater Golden Horseshoe that have been identified by the province as places where intensification should take place. These numerous centers have been targeted for intensification because they are the hubs of already built up areas, maintaining fundamental infrastructure such as transportation connections, existing municipal services, employment opportunities, an extensive housing stock, while also possessing the capacity to undergo further intensification, among other reasons. Municipalities must comply with these provincial initiatives regarding growth in their jurisdictions (Ministry of Public Infrastructure Renewal, 2005). As a result, the City of Toronto and the suburban municipalities surrounding it must outline in their official plans policies for land to be developed in a manner consistent with provincial initiatives. These initiatives, among other forces, have resulted in abundant higher density housing being built in nodes and along corridors throughout the City of Toronto and targeted growth centers in surrounding municipalities (City of Toronto, 2007).

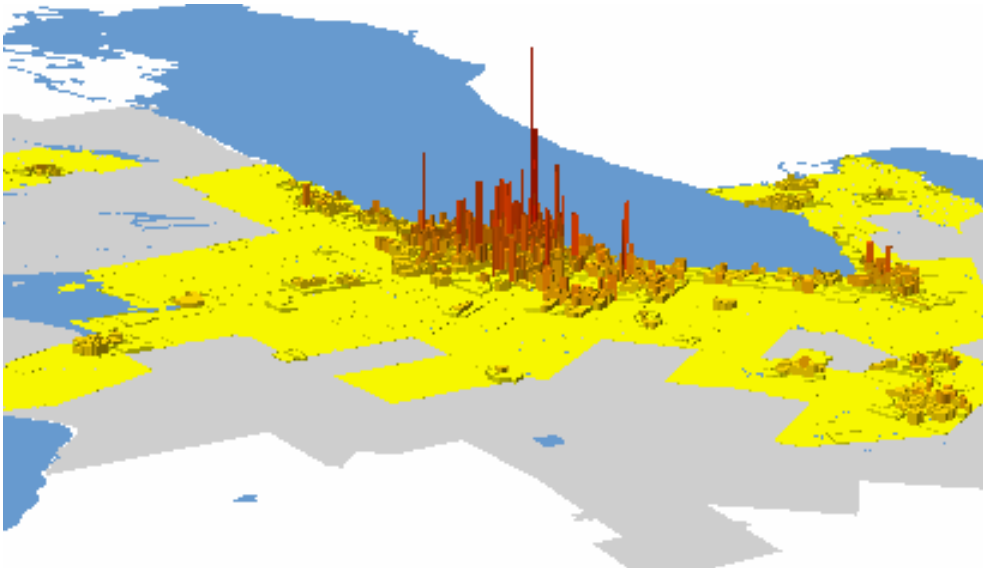
Figure 2.1 – Map of Targeted Urban Growth Centers in the Greater Golden Horseshoe

(Ministry of Public Infrastructure Renewal, 2005)

The lower the overall density of new development, the more land is required to accommodate a given amount of population increase. Between 2001 and 2006, 40 percent of total newcomers to Canada settled in the GTA, and this trend is expected to continue (Canada Mortgage and Housing Corporation, Spring, 2008). Furthermore, it is expected that an increasing amount of households, up to 68,000, will migrate into the GTA by the end of 2009 (Hess et al, 2007). Considering the large scale of growth that is expected to take place in the GTA and surrounding areas in the coming decades, even a small increase in density could greatly reduce the amount of overall land consumption. Figure 2.2

illustrates the substantially higher population density of the City of Toronto in relation to the much lower population densities of the other municipalities in the GTA. The overall population density of the City of Toronto exceeds 35 persons per hectare, while containing many census tracts with a population density of more than 200 persons per hectare (Hess et al, 2007).

Figure 2.2 – Population Density by Census Tract



(Hess et al, 2007)

Numerous jurisdictions in the United States also recognize the benefits of compact cites. A number of state legislatures in rapidly developing areas have adopted urban growth management plans, similar to those existing in Ontario. In his research, Anthony (2004) investigated the effectiveness of these state growth management initiatives in controlling the level of urban sprawl in the states in which they were implemented. His findings, however, showed that governmental growth management initiatives did not have a statistically significant effect on reducing sprawl. In addition, Lopez and Hynes (2003)

develop a methodology allowing them to compute levels of sprawl. Their results support Anthony's (2004) findings, suggesting that even with the presence of growth management legislation, urban sprawl remains a significant concern and current attempts to reduce it are not proving to be successful in all cases. Furthermore, their research indicates that the ratio of metropolitan areas with increasing levels of sprawl in comparison with those with decreasing levels of sprawl was nearly 2 to 1 over the past decade. Anthony (2004) recommends that states adopt better defined requirements and incentives to encourage more successful implementation of state policy and legislation. Better implementation strategies should therefore support growth management legislation.

The Canada Mortgage and Housing Corporation (December, 2005) conducted a study to determine which Canadian cities have made significant efforts to manage growth, and to significantly alter their development patterns. The study focused on six urban areas, including Toronto. The findings indicate that limited intensification is occurring in most jurisdictions and that the populations of their core areas are increasing. The conversion of industrial land in older urbanized areas has shown to be a major source of intensification opportunity in most cities, including Toronto. The researchers argue that significant opportunity for more intensification exists in the central cities of these urban areas because they are serviced to accommodate much larger populations than their infrastructure is currently servicing. The study concludes that a challenge for intensification remains declining household sizes. In many

jurisdictions, populations have been declining despite strong evidence of intensification activity. Additionally, Tomalty (1997) maintains that the population density of Toronto's central city, although the densest of any Canadian city, is still moderate by international standards. He also believes that there exist ample opportunities for greater intensification in the cores of Canadian cities, including Toronto, and that intensification will yield economic, environmental and social benefits.

Appropriate housing policy is an essential element in successfully achieving the goal of urban intensification. Jackson (2004) has investigated housing policy and examined the reasons why it is relevant to Canadians. He believes housing has become a key factor in social inclusion, population health, child development and the creation of supportive and cohesive communities. Jackson (2004) continues that housing affordability and community attributes closely linked to housing, such as diversity and safety, are connected to the attractiveness of cities and their regions from an investment perspective. He suggests that the availability of a wide choice of affordable housing not only contributes to the quality of life of Canadians, but also drives business investment and growth and influences where people choose to live and work. Jackson (2004) concludes that housing is about more than basic shelter needs. It is also about the creation of homes and inclusive, diverse and strong communities that build supportive social networks. The Canada Mortgage and Housing Corporation (2004) study agrees that the availability of housing of

varying sizes, types, tenures and prices constitutes an important part of inclusive communities capable of accommodating residents with diverse housing needs and economic means, being an essential aspect of a community's quality of life. The study concludes that increased investment in housing and related infrastructure is required in order to maintain a high quality of life in Canadian cities (Canada Mortgage and Housing Corporation, 2004).

In addition, Pomeroy (2004) has identified affordability as a primary housing need. He suggests that to be affordable, the related shelter costs of a dwelling must be less than 30 percent of household income. Pomeroy cautions that the decreasing stock of lower rent housing in Canada may diminish the standard of living of Canadians in general. He concludes that the development of improved indicators of the availability of lower rent housing options would be useful for creating a more successful housing policy (Pomeroy, 2004). It is, however, encouraging to note that average household incomes are increasing at a greater rate than average rents, thereby helping to offset the reduction in the supply of lower rent housing (Canada Mortgage and Housing Corporation, September, 2008).

2.2 Condominium Housing in the Greater Toronto Area

Higher density housing development, particularly high-rise condominium development, has been prevalent throughout the GTA in the early part of this century. Condominium apartments are now a common feature in urban areas throughout Canada. They are a popular tenure choice, particularly for first time

buyers in urban areas, where house prices are high and land available for new construction is scarce and costly (Canada Mortgage and Housing Corporation, 2005). However, turnover of condominium units among both investors and owner-occupants has been high. Many residents who purchased small one-bedroom units have put their units on the market, possibly as a result of their housing requirements having changed (Canada Mortgage and Housing Corporation, 2003).

While apartment housing is a building form commonly associated with the rental tenure, the share that are owner occupied has increased considerably with the emergence of condominiums in the 1960's, with virtually all newer apartment housing being condominiums (Canada Mortgage and Housing Corporation, 2004). The construction of low-rise housing has become less popular in the GTA in recent years, although it remains the housing type of choice in the outer suburbs and beyond. In 2008, low-rise starts are accounting for 80 percent or more of all home starts in York, Durham and Halton Regions (Canada Mortgage and Housing Corporation, September, 2008). While condominium apartment development is occurring in most parts of the GTA to varying degrees, the demand for centrally located condominium apartments has been particularly strong (Toronto City Planning, Policy and Research Department, 2007). The increased level of construction of centrally located condominiums contrasts sharply with the predominantly suburban locations condominiums used to occupy. Initially, condominiums were built primarily in suburban areas, intending

to provide an affordable ownership housing option to a moderate income market (McLaughlin, 1982).

In other major urban centers such as Montreal, the condominium market is also expected to sustain a less significant decline in demand than single family houses over the next year, likely due to greater affordability. Condominiums are the only housing type in Montreal that is registering an increase in sales for 2008 (Canada Mortgage and Housing Corporation, Fall, 2008). Furthermore, in Vancouver, condominium apartments are making up the majority of new housing projects. As in other major centers, buyers in Vancouver are opting to purchase a less expensive type of home (Canada Mortgage and Housing Corporation, Fourth Quarter, 2008).

The Southeast False Creek condominium development, although located in Vancouver, shares many of the same characteristics as high density condominium apartment developments in Toronto. The Southeast False Creek Project is considered by the Canada Mortgage and Housing Corporation (May, 2001) as being a prime example of sustainable high density housing in a central city area, contributing to many social, environmental and economic goals. A local example typical of many projects in Toronto's central city is the Portland Park Village. The plan for this development was consistent with the Province and City's intention to encourage intensification on infill sites. Prior to development, the brownfield site stood vacant for a number of years because previous

development proposals did not include high enough densities to satisfy the Province or the City (Canada Mortgage and Housing Corporation, 2001).

Studies investigating the higher density condominium market in the GTA have been undertaken since the creation of the condominium as a new housing alternative in the 1960's. An early research study by Hitchcock and Lewis (1981) looked into the existing condominium market in Toronto and the pace at which new or proposed condominium units are being absorbed by consumers. They concluded that the condominium market is growing in importance relative to other forms of housing in the overall metropolitan area and has found success particularly in areas where demand for a higher density form of home ownership was not being satisfied. They believe that the growth in this housing sector is being fueled by strong investor and owner occupant demand, and will continue to be high provided the financing environment is favourable. Finally, Hitchcock and Lewis (1981) suggest that there may be a point at which the condominium market will attempt to provide a substitute for rental accommodation, possibly contributing to negative social implications. Evidence of this has been observed in recent years through a higher demand for both condominium ownership and rental and will be explained in the following section.

2.3 The Rental Housing Environment in the Greater Toronto Area

The proportion of residential rental units to owned units in the GTA is high, although lower than some other major urban centers in Canada. Tenants make up nearly half of the City of Toronto's population while comprising a lesser

proportion of residents in Toronto's surrounding suburban municipalities (Toronto Shelter, Support and Housing Administration, 2006). By comparison, in the City of Montreal, the proportion of tenants is substantially higher than in Toronto, currently totaling approximately 70 percent of all residents (**Canada Mortgage and Housing Corporation, 2007).

In Toronto, approximately 75 percent of the rental housing supply is comprised of primary rental housing, meaning housing units built with the intention of being used as rental units. An overwhelming majority of the units in the primary rental housing supply are located in higher density environments such as high rise apartment buildings. The remaining 25 percent of the rental supply is comprised of secondary rental housing, meaning they were not specifically intended for rental use when they were built. These include detached houses, town houses, semi-detached houses, duplexes, as well as accessory apartments, such as basement apartments or coach houses, among other types. Furthermore, in recent decades the large amount of condominium apartment construction has increased the supply of the secondary rental market because of the high investor presence in the condominium market, averaging approximately 20 percent in recent years (Toronto Shelter, Support and Housing Administration, 2006). A major difference between the primary and secondary rental markets is their degree of permanence as a long term housing option. Secondary rental units are less permanent than their primary counterparts because the owners of these units may re-occupy or sell their units to new owners, who may remove

them from the rental supply, at any time (Metropolitan Toronto Planning Department, 1993). In addition, average rents for condominium apartments are generally higher than average rents for apartments in the primary rental market (*Canada Mortgage and Housing Corporation, 2007).

The supply of primary rental housing in Toronto has been decreasing due to primary rental apartment buildings being converted to condominium status, other uses or undergoing major repairs. In 2006, there were 2,713 fewer primary rental units in Toronto than there were in 1996 (Toronto Shelter, Support and Housing Administration, 2006). This trend is not being offset by new units entering the rental market. In 2007, only 217 new rental units in four projects were completed in Toronto (*Canada Mortgage and Housing Corporation, 2007). Private rental construction has been declining dramatically since 1990, largely due to the cancellation of tax incentives for rental apartment developers, even though the regulatory environment for landlords has become more favourable. In addition, there has also been a decline in government subsidized rental housing construction since the early 1990's due to the cancellation of federal and provincial funding for this form of housing (Will Dunning Inc., 2005). This is consistent with the situation in other major urban centers such as Montreal and Vancouver, where the rental stock has become smaller even with the construction of new units. Toronto's decrease in the stock of primary rental housing is also not being offset by new condominium apartment units being offered for rent by their owners. A higher proportion of buyers are occupying

their condominium units as opposed to renting them out (Will Dunning Inc., 2005).

Vacancy rates for privately held rental units in the City of Toronto's primary rental market have remained relatively low throughout the 1980's and 1990's, rarely exceeding 1.0 percent, but started to increase significantly since 2002. Toronto's vacancy rate in October of 2007 was 3.2 percent (*Canada Mortgage and Housing Corporation, 2007). By comparison, the demand for rental housing in Montreal remains stronger, with a vacancy rate of 2.9 percent in October of 2007 (**Canada Mortgage and Housing Corporation, 2007). Furthermore, the vacancy rate in Vancouver during the same period was substantially lower at 0.7 percent. A strong economy, high levels of immigration and increasing home prices are primary reasons for Vancouver's tight rental market (***Canada Mortgage and Housing Corporation, 2007). Toronto's increasing vacancy rates are due to a decline in demand for rental housing because of several major factors. Due to a favourable climate for home purchasers, with low interest rates and increased choices in the housing market, both low and high rise, more households are opting to buy instead of rent. However, an important factor offsetting the impact of increased homeownership on rental demand was an increase in youth employment, those between the ages of 15 and 24, an age demographic that tends to rent initially upon gaining employment and leaving their parental home. In addition, increased levels of immigration to the GTA and lower rental housing costs relative to income were a

positive factor influencing rental demand over the past couple of years (Canada Mortgage and Housing Corporation, September, 2008).

Furthermore, the secondary rental market influences conditions in the primary rental market and may be drawing demand away from the primary rental market, possibly because of the appeal of newer units and greater amenities available in condominiums. It is important to note that there is variation in rental market conditions across different sub-markets in the GTA. For example, vacancy rates in the central city have historically been lower than in the rest of the GTA (*Canada Mortgage and Housing Corporation, 2007). As in Toronto, the vacancy rates in both Montreal and Vancouver are also lower in the city center. Although it is expected that the above noted trends will continue, the rental market is dynamic, indicating that demand can quickly bounce back as a result of many factors. It is therefore important to encourage the development of new primary rental housing to ensure a long term supply (Toronto Urban Development Services, 2000).

2.4 Attitudes and Preferences Toward Higher Density Living

Numerous studies have been completed with their primary purpose being to identify the attitudes and preferences of residents toward living in higher density accommodations and environments. An investigation into high density, city centre living in the United Kingdom is undertaken by Heath (2001). A survey in the form of "on street interviews" distributed among different locations within various cities was used to explore the attitudes and preferences of residents with

regard to city centre living. The key question asked by the researcher was whether the respondent would consider living in a higher density environment in the city centre. Heath (2001) concludes that a significant minority of respondents, 27 per cent, would be willing to reside in the city centre. Proximity to place of employment, proximity to transit and the range of leisure and social options appear to be largely responsible for positive attitudes toward city centre living. Deterrents to city centre living included higher noise, traffic and pollution levels, the perception of higher crime rates and concern for personal safety.

Furthermore, the Metropolitan Toronto Planning Department (1994) conducted a survey of owner-occupant families with children in condominium apartments in the former municipality of Metropolitan Toronto. The intent of the study was to provide information on the occupant's housing preferences and their level of satisfaction with condominium apartment housing. A telephone survey was conducted using a sample of owner-occupants of high-rise condominium towers in suburban areas of the city, in addition to the owner-occupants of detached houses in those same areas. Condominium living was regarded by many residents as an interim stage and not a long term goal. It is still a choice that families make when they are young, lack money for a detached house and when their children are few and small. The long term goal of most families remains buying a detached house. In addition, an early study undertaken by Condominium Research Associates (1970) shared similar results, suggesting that the long term preferences of condominium owners are single

family detached dwellings. However, the results of the Metropolitan Toronto Planning Department (1994) research study also suggest that attitudes and preferences may be changing in ways that favour higher density living by larger numbers of households. A majority of respondents indicated that if they were to move, they would move to another location within Metropolitan Toronto, possibly into another higher density housing environment.

The following two studies examine household mobility patterns in an effort to determine the attitudes and preferences of residents toward higher density living. A Canada Mortgage and Housing Corporation (2006) research study investigates the rate of residential mobility by age group. The study looked into the specific reasons why people change residences. The two most common reasons given by households for moving in the past six years were a desire for a larger dwelling and the desire to live in a preferred neighbourhood. However, the study's results also indicated that a significant number of respondents over age 55 were looking to move into a smaller dwelling. As indicated by this study, while desire for greater living space may draw some demand away from higher density dwelling types, household downsizing may act to partially compensate for this demand reduction. Additionally, an early American study conducted by Sumichrast, Sheehan and Ahluwalia (1979) looking into the characteristics, attitudes and housing origins of condominium dwellers discovered results indicating that approximately 40 percent of respondents from their sample moved from a single family detached home which they previously owned into a

condominium apartment for reasons that included the presence of greater amenities and a preferred lifestyle.

2.5 Characteristics of Residents Living in High Density Housing

The studies discussed in the previous section included examinations of household and resident characteristics as part of their analysis. However, several key studies have also been undertaken, whose primary purpose was to expose the demographic characteristics of higher density households and residents for reasons other than to evaluate attitudes and preferences. "While financial considerations determine the housing choices that people are able to make, demographic factors, such as age, family, and ethnic background help shape residents' basic housing preferences" (Canada Mortgage and Housing Corporation, 2004). The Toronto City Planning, Policy and Research Department (2007), was prompted by the abundant condominium apartment growth in the downtown Toronto area to conduct a research study examining the characteristics of the occupants who are moving into these new units and whether or not they are any different from those who live in older downtown housing. The City Planning department wants to develop a clearer understanding of the impact that new residential developments will have on both emerging and existing downtown neighbourhoods. The study discovered that a large proportion of people moving into newer downtown housing tend to be young adults, occupying households independently or as a couple family, but very frequently without children. These new residents also tend to be employed in the downtown

core, are highly educated and are a part of households with a relatively high income. The Toronto City Planning, Policy and Research Department (2007) study has identified a marked difference between residents of older and newer downtown housing, which may indicate that ongoing housing development in the downtown core, will have an impact on existing and emerging downtown neighbourhoods. The study also points out that while these are some general trends that stand out, the complete profile of downtown residents living in newer housing reveals varied demographic characteristics.

In his study, Andrejs Skaburskis (1999) examines the demand for higher density building types in the Ottawa area by analyzing 1991 Census Canada data. The study found several major factors that differentiate single-family home owners from their higher density counterparts. The greater presence of children in the household, higher average ages and in particular, higher incomes are the key characteristics differentiating single family home owners from their higher density counterparts. Skaburskis's research suggests that the compactness of a city is largely determined by the affluence of its residents. Accordingly, he determines that the greatest challenge in developing more compact cities is in developing homeownership options within higher density housing that attracts family households with an above average annual income, an income bracket showing the greatest propensity to occupy single-family detached dwellings. Skaburskis suggests that with the likelihood of increasing annual incomes, it

must therefore be policy, and not demographics, that will change the pattern of urban development.

Another key study is David F. Lewis's (1974) investigation into the development of housing in new communities in the United States. Lewis compares the socio-economic characteristics of residents in new communities with those residents living in older housing. Motivating this study is the common assumption among planners and social scientists that new communities offer a means to alter traditional urban socio-economic and racial segregation patterns. The study used the 1970 United States census as the primary source of data. Data was gathered at the census tract level and comparisons were made between census tracts comprised mainly of older residential communities and those comprised primarily of recently constructed residential communities. Lewis's study concluded that there exist pronounced similarities between the socio-economic profiles of the residents of these two types of census tracts and as a result, he determines that the ability of new community development to alter existing socio-economic patterns is reduced. The methodology employed by Lewis's study is similar to that which is used in this study.

Furthermore, David Baxter (1997) investigates the relationship between demographics and housing demand in Ontario and attempts to forecast market activity to 2021. He asserts that the extent and nature of housing demand in Ontario will be primarily determined by two factors, demographics and socio-economics. He believes that changes in the age composition of the province's

population will have a significant impact on housing demand because of the strong relationship existing between people's age and the probability that they will maintain a household and the type of housing they will be likely to occupy. Baxter indicates that the most significant growth in demand will be for owner occupancy, both in the form of ground oriented and apartment housing types. That being said, he also recognizes the continuing diversity of Ontario's population and that there will continue to be shifts in preference and choice among all elements of the population. Baxter concludes that continuing urbanization in Ontario will encourage more households to move toward higher density forms of housing. Baxter suggests that the value of these projections resulting from his study lie in the information they provide about what might happen under a set of particular circumstances. Decision makers can then respond by developing strategic responses to those projections.

Lastly, Toronto Urban Development Services (2000) completed a research study examining the demographic profile of those residents either moving into or out of Toronto. The researchers determined that during the 1990's, 11 percent of its population moved either into or out of the city every year. With this high rate of mobility comes the potential for rapid change in the characteristics of the population. The study found that the majority of the people moving out of the city were young couple households with children, moving to one of the surrounding regional municipalities. In addition, almost half of the people moving into Toronto were immigrant families or single persons likely destined for living in

rental accommodations. An understanding of the dynamics of population change and composition is critical to produce successful municipal policy and programs, such as determining the type and location of required services. The study concludes in agreement with Jackson (2004) and Pomeroy (2004) that addressing the demand for affordable housing, both rented and owned, is critical to maintaining the economic health and social vitality of the city.

2.6 Summary

A number of strategies to guide the growth of urban areas have been proposed by planners, including the development of a compact city through the intensification of existing built up areas. This has been the strategy adopted by the Province of Ontario, as well as other jurisdictions in North America, contributing to the development of higher density housing in targeted growth centers in Southern Ontario, including communities within the GTA. Furthermore, there exists evidence in the literature to suggest that unrestrained urban growth continues to be a significant problem in the United States despite efforts put forth by numerous governments. This suggests that the ability of current strategies at addressing this concern may be inadequate. Literature related to higher density residential development in the GTA and other Canadian urban centers yielded information indicating that although there is a significant presence of higher density housing, there is still ample opportunity for more of this type of development, which is seen as a positive model for large metropolitan areas. In addition, the rental housing market in the GTA, although

less substantial than in other Canadian urban centers such as Montreal, is extensive and is a vital component of the overall housing market and needs to be maintained. Toronto, like Montreal and Vancouver, has experienced a decline in the supply of rental housing and a substantial increase in the amount of condominium development.

Furthermore, the literature indicates that attitudes and preferences among higher density housing residents vary, depending on individual characteristics. People have been shown to have different reasons for residing in higher density housing as well as having various plans for future relocation. Higher density housing of both tenures is often seen as a short term housing option by many residents. In addition, an evaluation of the characteristics of higher density and city center residents suggests the existence of a distinct segment of the housing market. In relation, the presence of distinct sub-markets for higher density housing in downtown Toronto based on newer and older, existing housing stock was discovered. Finally, annual income and age have been shown to have a particularly strong influence over residents choosing higher density housing over a detached, single-family house. However, the year and context in which these various studies were conducted should be considered, as they may have had an influence over results.

With one major exception, the Toronto City Planning, Policy and Research Department (2007) study, there is a noticeable lack in the research relating to a specific investigation into the possible presence of sub-markets within the larger

higher density housing market. The Toronto Urban Development Services (2000) and the Canada Mortgage and Housing Corporation's (September, 2008) studies both suggest higher density housing market heterogeneity, although this condition was not investigated extensively in those studies. Additionally, the current higher density housing environment in the GTA is likely quite different than when some of these studies were conducted, potentially yielding different results. More complete, updated and localized information will be particularly helpful for the Province of Ontario and its municipalities in increasing their prospects for success at implementing urban intensification strategies in the Greater Golden Horseshoe and the GTA. The information gained from undertaking this literature review is key to providing the background information, foundation and influence for the process and structure of this research study.

3.0 Methodology

The following sections outline in detail the research methodology used in this study. The chapter begins with a review and description of the study area's geography that is relevant to the research. Subsequently, the process of selecting the study sample from the study areas described above is explained in detail and the composition of the sample is summarized. The source of the data, the method used to collect it and the process of preparing it for use in the analysis is then outlined. Furthermore, the variables that are included as part of the analysis are summarized. Finally, the method of analysis is explained and rationalized.

3.1 Definition of Study's Geography

The following four sections describe the character and outline the boundaries of the relevant geographic areas that are examined in this study. The focus on the GTA and its three distinct urban zones; the central city, inner suburbs and outer suburbs is rationalized.

3.1.1 Greater Toronto Area

For the purposes of this study, the Greater Toronto Area will be composed of the City of Toronto, along with the surrounding regional municipalities of Durham, York, Peel and Halton. See Figure 3.1. This is the most commonly agreed upon definition of the GTA (Metro Planning, 1996). This definition of the GTA does not correspond with the Toronto census metropolitan area (CMA). A CMA is an area that consists of one or more neighbouring municipalities that are

situated around a major urban core. To be included in a CMA, adjacent municipalities must demonstrate a significant degree of social and economic integration with the urban core (Statistics Canada, 2008). The Toronto CMA is smaller in area and population than the GTA. More specifically, the Toronto CMA does not include the far eastern portion of Durham region, which encompasses Whitby and Oshawa, in addition to the western portion of Halton Region, which includes Burlington. These municipalities are included in the boundaries of the GTA. The boundaries of the GTA are more similar to those of Statistics Canada's definition of an Economic Region, with the exception that the GTA includes Burlington, while the Toronto Economic Region does not. The Economic Region is a grouping of census divisions created as a standard geographic unit for the analysis of regional economic activity (Statistics Canada, 2008). The GTA is comprised of three distinct divisions, the central city, the inner suburbs and the outer suburbs, which will be outlined in the subsequent sections. The GTA is the dominant urban area in Canada, as well as a major center in the North American context, attracting an overwhelming proportion of new immigrants to Canada. It is an important metropolitan area in economic, industrial and cultural terms. The selection of the GTA and its three component urban zones, to be discussed in subsequent sections, as the relevant geographies for this research study, was also appropriate because of the consistency between their boundaries and the requirements of the method of data collection to be used, which will also be discussed in a subsequent section.

Figure 3.1 – Map of the Greater Toronto Area

3.1.2 Central City

The central city is considered to be the collection of census tracts that correspond with the boundaries of the former cities of Toronto, York and East York that comprised the former City of Metropolitan Toronto, prior to amalgamation in 1998. See Figure 3.2. This area maintains characteristics that make it distinct from the rest of the former city of Metropolitan Toronto, such as a principal housing stock constructed in the pre-war period, as well as a more urban orientation with regard to physical layout and higher residential densities.

3.1.3 Inner Suburbs

The inner suburbs are considered to be the collection of census tracts that comprise the three remaining municipalities in the former city of Metropolitan

Toronto; Scarborough, North York and Etobicoke. See Figure 3.2. These three former municipalities maintain distinct characteristics differentiating them from the central city, as well as the outer suburbs. The primary component of the housing stock was constructed in the post-war era. In addition, the neighbourhoods within the inner suburbs maintain a more suburban orientation, including larger residential lots, curvilinear street patterns and lower residential densities than the central city. The inner suburbs, however, possess key elements of urban infrastructure that differentiate it from the outer suburbs, such as a comprehensive and extensive public transportation system that includes a subway.

Figure 3.2 – Map of the Former City of Metropolitan Toronto

3.1.4 Outer Suburbs

The outer suburbs are considered to be those municipalities that surround the present City of Toronto; the Regional Municipalities of Durham, York, Peel and Halton. See Figure 3.1. Within the GTA, these four regional municipalities are the most suburban in character. Their boundaries include both rural and more urbanized areas. They include established residential areas and historic settlements constructed in the pre-war period and numerous housing tracts that were constructed in the post-war period; however, the dominant housing stock in the outer suburbs was constructed in the last quarter of the twentieth century. All four municipalities in the outer suburbs continue to experience a high rate of growth, including greenfield development.

3.2 Sample Selection

The sample for this study will be selected from the total number of dissemination areas in the GTA. The size of the sample will depend upon the number of dissemination areas that conform to the parameters established by the researcher. The parameters for the selection of dissemination areas to be included in the sample are determined based on the proportions of various types of structural dwellings in each of the dissemination areas, in addition to the proportions of dwellings occupied under owned or rented tenures in each of the dissemination areas. The data required to apply the parameters to sample selection was obtained from the 2001 and 2006 Canada censuses. The process of data collection will be discussed in more detail in a subsequent section.

For the purposes of this study, a dwelling refers to a set of living quarters in which a person or persons reside or could reside. It must be a separate set of living quarters with a separate entrance either from outside or from a common area such as a hallway inside a building. Furthermore, tenure refers to whether any member of the household owns or rents the dwelling. An owned dwelling is considered to be one that is owned or being bought by a member of the household, while a rented dwelling is considered to be one not owned by a member of the household, even if it is provided without payment. Condominiums, which have become a common form of home ownership in higher density urban environments, are residential complexes in which dwellings are owned individually, while the land on which the building is situated is owned jointly with other residents (Statistics Canada, 2008).

A dissemination area is a geographic unit that is generally compact in size. Its targeted population averages between 400 to 700 residents, although higher and lower populations are common. The dissemination area is the smallest standard geographic area for which all census data are provided. Census data is aggregated to protect the anonymity of respondents, and as a result it cannot provide complete population information on a scale smaller than the dissemination area. All of the territory in Canada is divided into dissemination areas (Statistics Canada, 2008). Using a small geographic unit such as the dissemination area allows for the achievement of a sample that maintains observations with a relatively homogenous structural dwelling type and housing

tenure. They are more likely to have a consistent urban form. This is critical for a successful analysis. For example, many of the dissemination areas included in this study were composed of only several rental or condominium apartments, thereby simplifying the definition of that dissemination area. Wherever possible, Statistics Canada has attempted to maintain stability and uniformity among the boundaries of dissemination areas, thereby maximizing their usefulness for data analysis.

Population density is generally defined as the number of persons per square kilometer. However, it should be noted that the definitions of density are diverse and the reasons for studying density influence the way in which it is measured, as is the case in this study (Hess et al, 2007). For the purposes of this study, the proportions of various types of structural dwellings in each dissemination area will be used by the researcher to define the residential density of that dissemination area. To be considered predominantly higher density, a minimum of 50 percent of a dissemination areas' dwelling units must be located in buildings with 5 or more stories, a maximum of 45 percent of that dissemination areas dwelling units can be located in buildings with less than 5 stories, be row houses, semi-detached dwellings, or duplexes and finally, a maximum of 5 percent of its dwelling units can be single-family detached or movable dwellings.

Some clarification of the terms defining the type of structural dwelling is required. A single-family detached dwelling is not attached to any other dwelling

or structure. A semi-detached dwelling refers to one of two dwellings that are attached side by side. Furthermore, a row house is considered to be one of three or more dwellings joined side by side. Similar to a semi-detached dwelling, a duplex is one of two dwellings located above or below one another. An apartment with fewer than five storeys refers to a dwelling unit attached to other dwelling units or other non-residential units in a building with less than five storeys. This includes dwelling units that are located directly above commercial spaces. Apartments with five or more storeys generally refer to high-rise apartment buildings. Finally, a movable dwelling is a single dwelling that is designed to be transported and is capable of being moved on short notice, such as a mobile home, recreational vehicle or a houseboat (Statistics Canada, 2008).

This combination of structural dwelling types allows for a dissemination area to be of a predominantly higher density nature, however, it does consider that the presence of at least a small proportion of single-family detached dwellings in many dissemination areas is often very common, particularly in the inner and outer suburbs. In addition, permitting the presence of a small proportion of single-family detached dwellings in predominantly higher density dissemination areas allows for the possible existence of misreporting during the census. As a result, the size of the sample of dissemination areas is maximized.

Furthermore, to be considered a predominantly rented dissemination area, the researcher has determined that no more than 10 percent of its dwelling units may be owned, while predominantly owned dissemination areas are considered

to be those with a minimum of 70 percent of its dwelling units being owned. Permitting a maximum of 10 percent owned units to be included in what are considered to be predominantly rented dissemination areas allows for the possibility of misreporting during the census, as well as accounts for the possible owned tenure of any single-family detached dwellings or other lower rise housing that may exist in that dissemination area. For dissemination areas that are considered to be composed of predominantly owned dwellings, permitting the presence of a maximum of 30 percent rented dwellings considers that approximately 20 percent of condominium units in the GTA are rented out by their owner, while also allowing an additional 10 percent for the possibility of misreporting during the census. These dwelling tenure parameters also increase the potential size of the sample of dissemination areas.

Table 3.1 – Sample Selection Parameters

Structural and Tenure Type of Dwelling	Higher Density Owned Dissemination Area	Higher Density Rented Dissemination Area
Hi-Rise Buildings (5 or more stories)	minimum of 50 %	minimum of 50 %
Low-rise, Higher Density (less than	maximum of 45 %	maximum of 45 %
5 stories, row houses, duplexes,		
semi-detached)		
Single Family or Movable Dwellings	maximum of 5 %	maximum of 5 %
Tenure Type	minimum of 70 % owned	minimum of 90 % rented

Four other sets of parameters to select appropriate dissemination areas for the sample were considered. These other parameters each maintained lower or higher proportions of each of the structural dwelling types, in addition to lower or higher proportions of rented or owned dwelling types. Upon the

consideration of each set of parameters, five dissemination areas within each of the GTA's three urban zones were randomly selected and visited by the researcher, who drove through the vicinity and observed the dwelling and tenure composition to determine whether the set of parameters under consideration was consistent with the goal of the study and to ensure a general correspondence between the set of parameters and the actual composition of the dissemination area. The approximate proportion of higher density housing types was visually estimated, while the confirmation of the proportions of rented or owned dwellings was also estimated, based on the presence of subtle cues such as a building's property management company, age and quality of a building, the presence of "vacancy" or "for rent" signs, among other indicators. While this method of verification is not as precise as counting the exact proportions of dwelling types or confirming the tenure of each building in each of the dissemination areas under consideration, it was the most practical considering the large number of dissemination areas that needed to be visited before the appropriate set of sample selection parameters was determined. The chosen parameters determining the sample of dissemination areas have been selected because it is believed that they best reflect and support the goal and objectives of this study by being reasonably representative of predominantly higher density residential districts. In addition, the parameters outlined above were also selected because they yielded the highest number of observations.

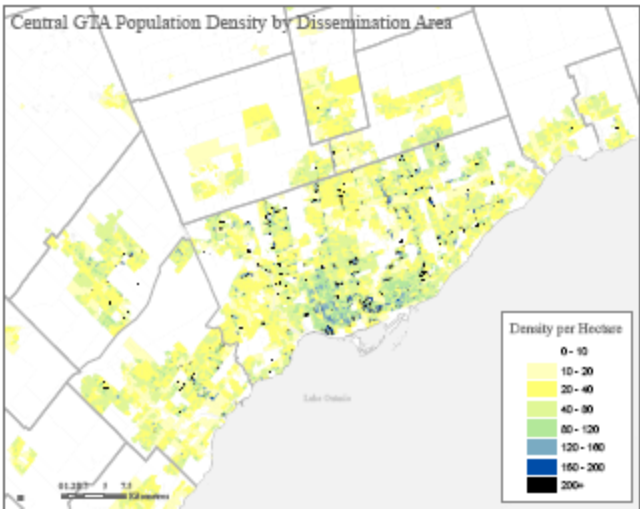
Through the chosen parameters outlined above, in 2001 the total number of observations is 721, and in 2006, the total number is 344. To further break down these totals, in 2001, in the central city there are 31 and 223 observations representing predominantly owned and rented dissemination areas respectively. In the same year there are 85 observations representing predominantly owned dissemination areas and 247 representing predominantly rented ones in the inner suburbs. Furthermore, in 2001, in the outer suburbs, 53 observations represent predominantly owned dissemination areas, while 82 observations represent predominantly rented ones. In 2006, 18 observations represented dissemination areas in the central city that are predominantly owned, while 111 observations represented those that are predominantly rented. Fifty-three and 102 observations represent dissemination areas in the inner suburbs that are predominantly owned and rented, respectively. Finally, in 2006, 26 observations represent dissemination areas that are located in the outer suburbs and are predominantly owned, while 34 observations represent those in the outer suburbs that are predominantly rented.

Table 3.2 – Sample Breakdown for Higher Density Districts

Census Year	2001	2006
Total Number of Observations	721	344
In the Central City	254	129
Owned	31	18
Rented	223	111
In the Inner Suburbs	332	155
Owned	85	53
Rented	247	102
In the Outer Suburbs	135	60
Owned	53	26
Rented	82	34

It is evident that there are significantly fewer observations for 2006 than there are for 2001. This may seem peculiar since the considerable increase in higher density housing construction throughout the GTA would suggest a likely increase in the number of predominantly higher density dissemination areas from 2001 to 2006. The lesser amount of observations in the latter sample may be partly explained by the consolidation and reorganization of dissemination area boundaries between 2001 and 2006. Another possible and more likely explanation is that between 2001 and 2006, some higher density dissemination areas became more heterogeneous with regard to their structural dwelling or tenure composition, thereby exceeding the established sample selection parameters. For example, the proportion of lower rise, higher density dwellings may have exceeded the 45 percent limit in some higher density dissemination areas by 2006, thereby rendering them inappropriate for inclusion in the sample. Figure 3.3 demonstrates a scattering of high density dissemination areas, those with more than 200 persons per hectare, over the inner core of the GTA, including portions of the outer suburbs, although the vast majority are located within the boundaries of the central city and the inner suburbs. The dissemination areas vary in size, some representing only a single building, while others represent clusters of higher density housing. The definition of higher density dissemination areas for the purposes of this study is not the same as the definition used for Figure 3.3.

Figure 3.3 – Population Density by Dissemination Area



(Hess et al, 2007)

As part of the analysis, the data from the sample of higher density dissemination areas is measured against a comparable group. The comparable group consists of the general population of the GTA, as well as its central city, inner suburbs and outer suburbs, represented by the total number of dissemination areas in each of these four urban zones. In the GTA for 2001, 7,636 observations represent the total number of dissemination areas. Also for 2001, 1,546 observations represent dissemination areas located in the central city, 2,335 represent those located in the inner suburbs, while 3,755 observations represent those dissemination areas located in the outer suburbs. For 2006, 7,651 observations represent the dissemination areas located within the GTA. For the same year, 1,450 observations represent those located in the central city, 2,101 represent those located in the inner suburbs and 4,100 represent those dissemination areas located in the outer suburbs.

Table 3.3 – Sample Breakdown for Comparable Groups

Census Year	2001	2006
Total GTA Observations	7,636	7,651
In the Central City	1,546	1,450
In the Inner Suburbs	2,335	2,101
In the Outer Suburbs	3,755	4,100

3.3 Data Collection

The data required to successfully achieve the goal and objectives of this study will be obtained from the 2001 and 2006 Canada census' cumulative data profile. The cumulative data profile provides a statistical overview of several geographic areas based on numerous detailed variables or groups of variables. The largest geographic area for which the cumulative data profile is available is at the national level, with the smallest being the dissemination area level. Component topics comprising the cumulative data profile for 2006 were released periodically after the completion of the 2006 census and built upon throughout the release cycle until the final release topic formed the completed cumulative data profile in May of 2008, enabling this study to utilize a complete and current set of data. All available data for the selected samples outlined above was retained and considered for use in this study.

The Canada census provides detailed statistical data for a single point in time, illustrating the demographic, socio-cultural and economic conditions of the population. The Canada census enumerates everyone living in Canada, including Canadian citizens, landed immigrants, non-permanent residents, as well as those citizens and landed immigrants who are temporarily outside the country during

the enumeration process. Because the Canada census measures an extensive range of standardized and nationally comparable statistics, it is a valuable source of cross-classified data that generally remains relatively stable over time (Statistics Canada, 2008). Access to the Canada census data was obtained through the University of Waterloo's licensing agreement with Statistics Canada granting students access to the 'Beyond 2020' electronic databases.

Canada census data has been determined to be particularly suitable for use in this study's analysis process for four primary reasons. Firstly, recent data was available from 2006, as well as earlier data from 2001, allowing for comparison over time and an evaluation of trends. Secondly, the data was easily accessible. Furthermore, the extensive range of information provided by the data allows for an in depth analysis on a broad range of topics. Finally, the ability to obtain a high number of observations may make the generalization of results to other urban areas possible, as well as increase the potential of achieving statistically significant results. Other data collection techniques, such as using the survey questionnaire or in-depth interviews, were considered. However, the cost effectiveness and expediency offered by using the census data made this the most practical option.

Collecting the data for observations representing dissemination areas in the outer suburbs is a straightforward process. The boundaries of Statistics Canada's census divisions and their constituent dissemination areas correspond with the boundaries of the four regional municipalities surrounding Toronto and

therefore with the boundaries of the outer suburbs as well. This allows the dissemination areas to be easily identified as lying within the boundaries of the outer suburbs. This is not the case with the dissemination areas lying within the central city and inner suburbs. After the amalgamation of the former City of Metropolitan Toronto, the boundaries of its component municipalities, which define the boundaries of the central city and inner suburbs, were no longer recognized in the 2001 and 2006 censuses. As a result, the dissemination areas lying within the City of Toronto are not directly identifiable as being a part of the central city or inner suburbs. However, due to 2001 and 2006 census tracts lying wholly within the boundaries of the municipalities of the former City of Metropolitan Toronto's, an identification of dissemination areas lying within the central city and inner suburbs was possible. The ranges of those census tracts lying within the central city and inner suburbs is known, thereby allowing the dissemination areas lying within those urban zones to be identified. A census tract, like a dissemination area, is a small and relatively stable geographic area. Census tracts, however, maintain a larger target population of between 2,500 to 8,000 persons, containing several dissemination areas. They are located only in larger urban centers (Statistics Canada, 2008).

The raw data obtained from the 2001 and 2006 Canada censuses is very extensive, disjointed and difficult to interpret. The overwhelming majority of variables present in the raw data are either not relevant to this study or are broken down to a level unnecessary for the purposes of this study. As a result, a

process for editing, organizing and transforming the data into a meaningful form, which can be easily employed during analysis, needs to be undertaken. This data preparation process is completed with the use of the Microsoft Excel spreadsheet program. Of the approximately 2,063 variables that are included in the 2001 and 2006 Canada census data, this study includes only 100 of them as part of its analysis. The variables chosen correspond closely with the research questions outlined earlier, providing a way to measure these concepts. The consolidation of variables will be discussed in greater detail in the following section. Observations for which missing fields for certain variables are present are retained for the analysis. Furthermore, upon visual data inspection with the aid of Microsoft Excel, certain observations contained fields for some variables that were clearly incorrect. In these particular cases, a blank field was included in its place. All other data fields in all the observations included in the analysis were taken to be correct. All original data records will be retained for at least one year following the completion of this research study.

3.4 Variables

There are 100 variables describing household and resident characteristics that are considered to be relevant to this study and will therefore be included in the analysis, which will be discussed in a subsequent section. The variables were selected with regard to those that were included in the previous studies that influenced the formulation of this study's hypothesis. Furthermore, this study's analysis method maintains no restrictions as to the number of variables that can

be used, as would have been the case with multiple regression analysis. As such, all variables that could reasonably be included based on their structure in the raw data, were included, even if there was a lack of precedent from other similar studies. These 100 variables can be organized to form 19 variable categories. They include: "location", "tenure", "structural dwelling type", "census year", "age", "family structure", "number and age of children", "household composition and structure", "number of bedrooms per dwelling", "languages spoken at home", "household mobility patterns", "immigrant status", "visible minority status", "employment statistics", "type of worker and occupation", "place of work and mode of transportation", "level of education", "income", "prevalence of low income and shelter costs". Some of these variable categories and the variables included in them are self explanatory, however there are others that require explanation and further clarification. They will be explained in greater detail as part of the analysis.

While the majority of the variables present in the raw data are not relevant to the study and are omitted, others are significant, however they are part of related groups of variables that are broken down to a degree that is unnecessary and would make the analysis cumbersome. As a result, many of the variables included in this study are the product of several variables from the raw data that were consolidated so that the analysis will be more comprehensible. For example, the original variables of "married couples" and "common law couples", and "female lone parent" and "male lone parent families" were

consolidated simply into the variables of "couple families" and "lone parent families". The large number of variables in the raw data relating to languages spoken at home were consolidated into simply "official only", "non-official only" and "official and non-official" languages spoken at home. Furthermore, the "occupation" variable category was substantially reduced to general variables indicating the broader occupational field. Finally, the numerous and inconsistent variables relating to education in the raw data for both 2001 and 2006 were consolidated into only 4 variables; "no certificate, diploma or degree", "high school or equivalent", "college apprenticeship or some university" and "bachelors degree and higher". This variable category is the only one in this study where consistency in the analysis was not able to be achieved between 2001 and 2006 data. The data for 2001 is based on information for all residents over the age of 15, while the data for 2006 is based on information for all residents over the age of 20. For this reason, the data for the education variables will not be compared across the 2001 and 2006 census years during the analysis. The variables referred to above are only some of those that have undergone transformation to make them more appropriate for use in the analysis.

Table 3.4 – Variables Used in Analysis

Variable Category	**Associated Variables**
Age	0 to 4
	5 to 9
	10 to 14
	15 to 19
	20 to 24
	25 to 29
	30 to 34
	35 to 39

	40 to 44
	45 to 49
	50 to 54
	55 to 59
	60 to 64
	65 to 69
	70 to 74
	75 to 79
	80 to 84
	85 and over
Family Structure	Couple Families
	Lone Parent Families
	Without Children at Home
	With Children at Home
Number and Age of Children	1 Child
	2 Children
	3 or More Children
	Under 6 years
	6 to 14 years
	15 to 17 years
	18 to 24 years
	25 years and over
Household Composition and Structure	Non-family Persons
	Family Persons
	Living Alone
	1 person in Household
	2 persons in Household
	3 persons in Household
	4 to 5 persons in Household
	6 or more persons in Household
Number of Bedrooms per Dwelling	Number of Bedrooms per Dwelling
Languages Spoken at Home	Official Only
	Non-official Only
	Official and Non-official
Household Mobility Patterns	Non-movers 1 year
	Movers 1 year
	Non-movers 5 year
	Movers 5 year
	Non-migrants 1 year
	Migrants 1 year
	Non-migrants 5 year
	Migrants 5 year
Immigrant Status	Non-immigrants
	Immigrants
	Non-permanent Residents
	Recent Immigrants
Visible Minority Status	Visible Minority Population
Employment Statistics	Unemployment Rate

Type of Worker and Occupation	Employees
	Self-Employed
	Unpaid Family Workers
	Management
	Business, Finance and Administration
	Natural and Applied Sciences
	Health
	Social Science, Education, Government, Religion
	Art, Culture, Recreation and Sport
	Sales and Service
	Trades, Transport and Equipment Operators
	Primary Industry
	Processing, Manufacturing and Utilities
Place of Work and Mode of Transportation	In CSD of Residence
	In Different CSD of Residence
	At Home
	Outside Canada
	No Fixed Workplace Address
	Car, Truck, Van as Driver
	Car, Truck, Van as Passenger
	Public Transit
	Walked
	Bicycle
	Motorcycle
	Taxicab
	Other Method
Level of Education	No Certificate, Diploma or Degree
	High School or Equivalent
	College, Apprenticeship or Some University
	Bachelors and Over
Income	Median Household Income
Prevalence of Low Income & Shelter Costs	Prevalence of Low Income
	Total Spending Over 30% on Household Expenditures
Location	GTA
	Central City
	Inner Suburbs
	Outer Suburbs
Tenure	Owned
	Rented
Structural Dwelling Type	Single-family or Movable Dwelling
	Low-rise, Higher Density Dwelling
	Hi-rise Dwelling
Census Year	2001
	2006

3.5 Analysis Method

Simple, descriptive statistics will be the method used to analyze the selected data obtained from the 2001 and 2006 Canada censuses. This analysis method is believed to be most appropriate based on the aggregated nature of the data available with the dissemination area as the statistical unit of analysis. The use of correlation analysis to support the descriptive statistics analysis was considered, but was deemed to be redundant, introducing a level of analysis that will not greatly improve the results and conclusions. Correlation analysis would indicate the strength and direction of a linear relationship between two variables (Brace, 2003). Also, the use of multiple regression was considered as an analysis method, as it is widely used in social research. The purpose of regression analysis is to learn more about the relationship between several independent variables and a dependent variable. Regression analysis relies heavily on underlying assumptions of relationship being satisfied (Brace, 2003). Because other similar studies have not commonly used this analysis method, the appropriate assumptions of which variables to include in the model cannot easily be verified. Furthermore, the nature of the aggregated, summary data would render the interpretation of the model parameters rather unclear. As a result, too much emphasis could not be placed on the results, and conclusions based on these results would be rather weak. Furthermore, the large number of variables included in the analysis would require far more observations than were obtained

through the sample selection parameters, to perform meaningful statistical analysis.

The descriptive statistics allow the researcher to identify, describe and compare the relationship between the variables within the categories identified in the previous section. They are used to describe the basic features of the data in a research study and together with simple graphic analysis, they form the basis of virtually every quantitative analysis of data (Brace, 2003). Descriptive statistics will be used to simplify the large amount of data contained within this study and present the results in a comprehensible and manageable form, so they may be more easily interpreted and to enable comparisons across observations to be more easily made. Furthermore, it will be important to recognize that a correlational relationship between variables does not imply a causal relationship. A correlational relationship simply indicates that two variables are associated and are performing in a coordinated manner and does not indicate whether one variable causes a change in the other (Brace, 2003).

Configuring the refined data into a form that can be used in the analysis required several steps. In preparation for creating the descriptive statistics, the sums of all the values of all selected variables for all observations in each sample group was determined. Subsequently, each of these sums was divided by the sum of that variable's total population. This produces the weighted proportions of the presence of each variable in a particular sample group. For those variables where a percentage or rate was provided for each observation, the weighted

average of these values was calculated for each variable in the sample group. This process was applied to all sample groups, including the six urban zone and tenure pairings, for both census years, as well as the general population data for the GTA and its three urban zones. The calculations outlined above and the conversion of the results into a more comprehensible visual form such as graphs was accomplished using Microsoft Excel.

3.6 Summary

The boundaries of the GTA have been determined as being most appropriate to define the extent of the geographic parameters of this research study. The central city, inner suburbs and outer suburbs are each unique geographic components of the GTA, with fundamental differences in their character, thereby providing the natural framework for the structure of this study. The chosen selection parameters determining the sample of dissemination areas were considered to best reflect the goal and objectives of this study. Furthermore, the use of Canada census data is considered to be a suitable source from which to easily acquire the data required to undertake the chosen method of analysis. The numerous variables were chosen with the guidance provided by other research and their inclusion in the analysis is believed to be valuable in reaching the goal and objectives of this study. Lastly, using simple, descriptive statistics has been recognized as an appropriate method of analysis to establish relationships between the numerous chosen variables. There are

many strengths and limitations associated with the research methodology employed by this study. These will be discussed in the final chapter.

4.0 Analysis

The following two sections and their component sub-sections outline the key findings of the analysis. The first section and its four sub-sections review the housing and population characteristics of the study areas. The second section and its fifteen sub-sections review the household and resident characteristics of higher density housing districts in the study areas. Figures and tables will be found throughout this section. The figures, which are graphs illustrating the data, only display the 2006 data, both for the higher density urban zone and tenure pairings and for the comparable groups. The tables include data from both the 2001 and 2006 census years.

4.1 Housing and Population Characteristics of Study Geographies

The following four sections outline the housing and population characteristics of the GTA and its central city, inner suburbs and outer suburbs. Furthermore, housing and population trends for these urban zones between the 2001 and 2006 Canada censuses are reviewed. It needs to be noted that the population figures provided in this section are based on the total number of persons that were enumerated during the census. These counts are lower than the actual population estimates. This is due primarily to the occurrence of net census under-coverage. While Statistics Canada tries to enumerate the entire population, a portion of the population is not counted for a variety of reasons. The re-evaluated population estimates that take under-coverage into account are released at a later date and only at certain geographic levels, not considering the

values of the individual variables making up the cumulative data profile for a level of geography. To maintain consistency within this study, the initial population counts provided during enumeration will be used. In 2006, after adjustments were made, the population of Canada was estimated to be 3.2 percent higher than the population enumerated during the census (Statistics Canada, 2008).

4.1.1 Greater Toronto Area

According to the Canada census, in 2006 the population of the GTA was 5,543,665. The population of this metropolitan region is growing rapidly, experiencing a 9.2 percent increase between the 2001 and 2006 censuses. Approximately 69 percent of dwellings in the GTA are owned, with the remaining 31 percent being rented dwellings in 2006. This represents a 5 percent decrease in the proportion of owned dwellings since 2001. In 2006, 44 percent of structural dwelling types were single family detached dwellings, a decrease of 2 percent since the previous census. The proportion of high rise dwellings in 2006, those in buildings with 5 or more stories, was 25 percent, representing a 1 percent decrease over the 5 year period since 2001. Finally, the proportion of lower rise, higher density dwellings in the GTA has increased significantly from 28 percent of all dwellings in 2001 to 32 percent in 2006.

Figure 4.1 – Population of the GTA and it's Urban Zones - 2006

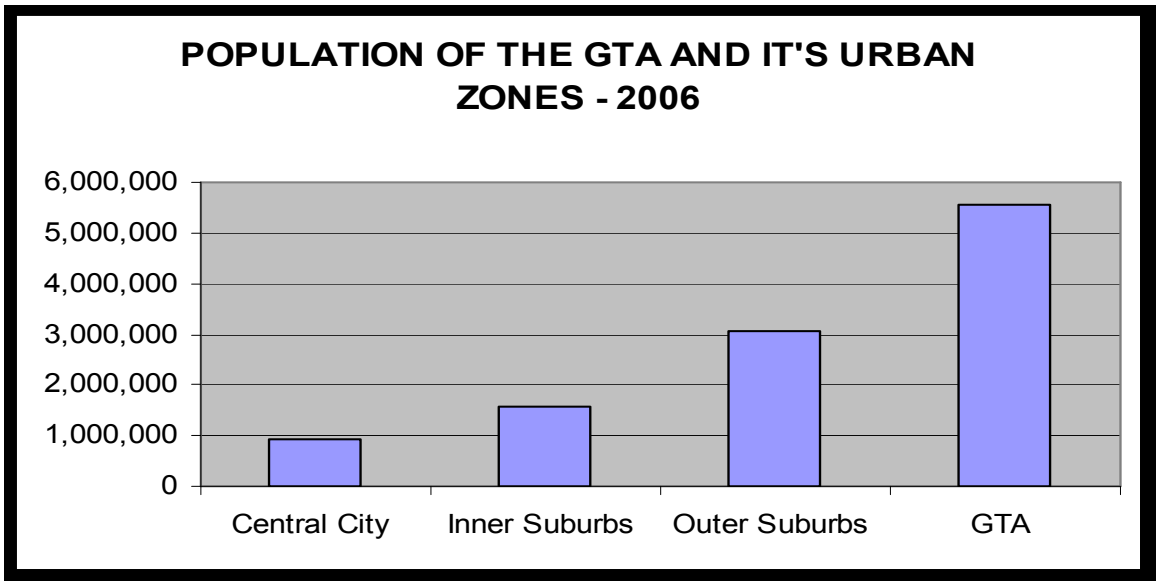


Figure 4.2 – Housing Tenures in the GTA and it's Urban Zones - 2006

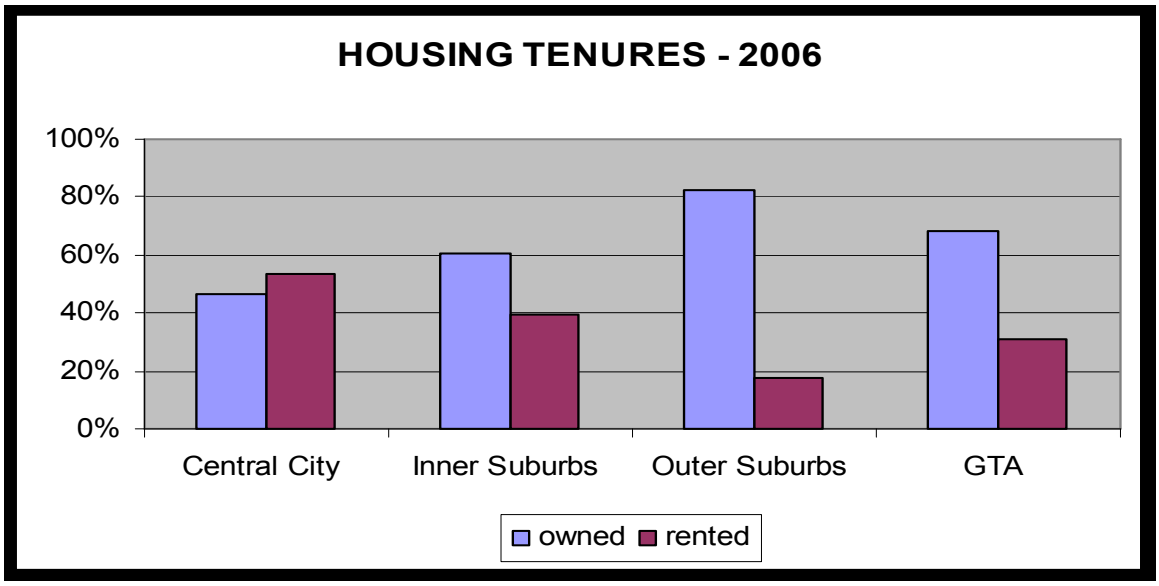


Figure 4.3 – Structural Dwelling Types in the GTA and it's Urban Zones - 2006

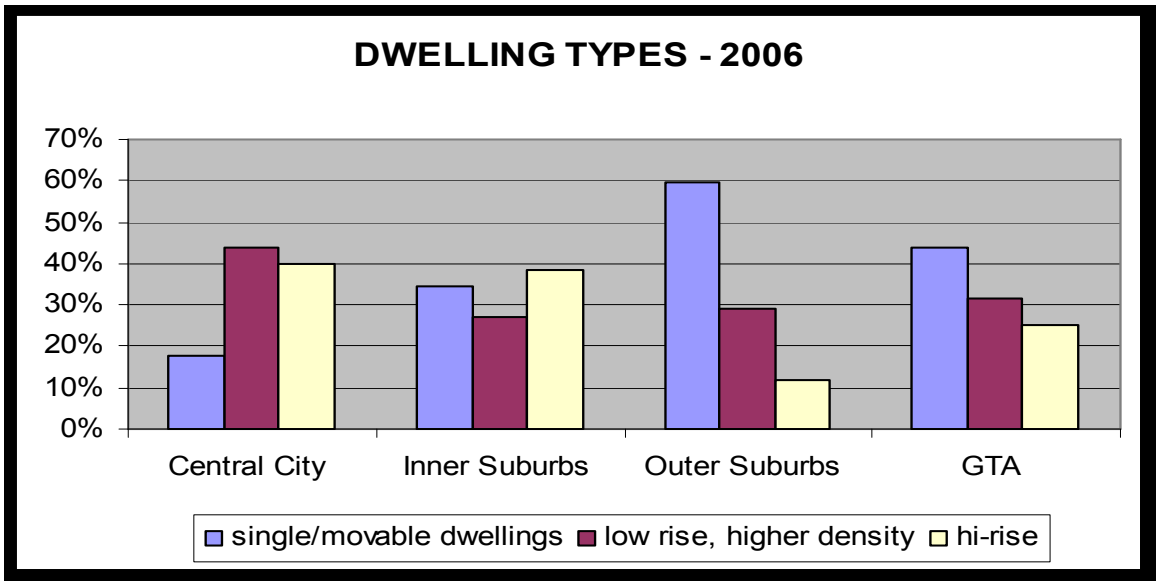


Table 4.1 – Population Data for the GTA and it's Urban Zones – 2001 & 2006

Census Year	2001	2006
GTA	5,077,933	5,543,665
Central City	940,854	927,435
Inner Suburbs	1,538,529	1,565,328
Outer Suburbs	2,598,550	3,050,902

Table 4.2 – Tenure and Dwelling Type Data for the GTA and it's Urban Zones – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Owned (2001)	42.2%	56.8%	79.4%	64.1%
Rented (2001)	56.9%	43.0%	20.6%	35.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Single/Movable (2001)	22.2%	39.3%	62.6%	46.4%
Low-rise, higher density (2001)	39.9%	23.3%	24.2%	27.5%
Hi-rise (2001)	37.9%	37.4%	13.2%	26.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Owned (2006)	46.6%	60.4%	82.5%	68.7%
Rented (2006)	53.3%	39.5%	17.4%	31.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Single/Movable (2006)	17.9%	34.7%	59.6%	43.7%
Low-rise, higher density (2006)	43.7%	27.3%	29.0%	31.6%
Hi-rise (2006)	39.7%	38.4%	11.9%	25.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.1.2 Central City

At the time of the most recent census in 2006, the population of the central city was 927,435. Between the 2001 and 2006 censuses, the population in this urban zone has actually experienced a small population decrease of 1.4 percent. However, it has been indicated that the population of the downtown core within the central city has increased substantially. The proportion of owned dwellings in this urban zone increased 5 percent between 2001 and 2006 to 47 percent of all dwellings. The central city has the lowest proportion of single-family detached dwellings among the three urban zones, being only 18 percent in 2006. This represents a decrease of 4 percent since 2001. The greatest proportion of structural dwellings types in the central city is maintained by lower rise, higher density housing. This structural dwelling type has increased from approximately 40 percent in 2001 to 44 percent in 2006. The proportion of dwellings located in buildings with 5 or more stories was 40 percent in 2006, an increase of less than 2 percent since 2001.

4.1.3 Inner Suburbs

In 2006, 1,565,328 persons resided in Toronto's inner suburbs. The population in this urban zone has remained relatively stable, although a small increase has occurred between the 2001 and 2006 censuses. The proportion of owned and rented dwellings in the inner suburbs in 2006 was 60 percent and 40 percent respectively. This represented an increase of 3 percent in favour of rented dwellings. The inner suburbs maintain a more even distribution of

structural dwelling types than the central city. In 2006, single-family detached dwellings possessed a 35 percent share of all dwellings in the inner suburbs, decreasing from 39 percent in 2001. The proportion of lower rise, higher density dwellings increased from 23 percent in 2001 to 27 percent in 2006. Finally, in the inner suburbs, the proportion of total dwellings in 2006 that were located in high rise buildings was 38 percent, representing only a marginal increase of approximately 1 percent since 2001.

4.1.4 Outer Suburbs

According to the 2006 Canada census, the population of the GTA's outer suburbs was 3,050,902. The overwhelming majority of the GTA's population increase from 2001 to 2006 was due to population growth in the outer suburbs. During this period, the population in the outer suburbs grew by 17.4 percent. The outer suburbs are still dominated by the single-family detached dwelling. In 2006, this structural dwelling type represented 60 percent of total dwellings in the outer suburbs, decreasing from 63 percent over the preceding 5 year period. Lower rise, higher density structural dwelling types were the only form of housing that experienced a proportional increase between the 2001 and 2006 censuses. In 2001, lower rise, higher density structural dwelling types accounted for 24 percent of all dwelling units, while by 2006 this had increased to 29 percent. Finally, the proportion of high rise dwellings in the outer suburbs, although remaining relatively stable during the 2001 to 2006 period, did

experience a marginal decrease of approximately 1 percent to 11.9 percent of total dwellings in this urban zone.

4.2 Household & Resident Characteristics of Higher Density Housing

The following fifteen sub-sections outline the demographic and socio-economic characteristics of the households and residents of the higher density dissemination areas that are predominantly owned and predominantly rented in the central city, inner suburbs and outer suburbs. A predominantly owned or rented dissemination area located in either the central city, inner suburbs or outer suburbs is regarded in this study as an urban zone and tenure pairing. In addition, the household and resident characteristics of the general population of the GTA and its three urban zones are reviewed. Furthermore, trends between the 2001 and 2006 censuses are examined.

4.2.1 Age

There are significant differences in the predominant age ranges of those residents living in the six urban zone and tenure pairings, as well as some notable changes between the 2001 and 2006 censuses. In 2006, owned dissemination areas in the central city maintained the highest proportion, almost 14 percent of its residents, of those between the ages of 30 to 34. Furthermore, approximately one third of those living in owned dissemination areas in the central city are young adults between the ages of 20 and 39. Among those living in rented dissemination areas in the central city in 2006, over 41 percent were a part of the 20 to 39 age range. The ages of residents in this urban zone and

tenure pairing were more evenly distributed within the 20 to 39 age range than in owned dissemination areas in the central city. These patterns are quite different from the 2001 age profile. In 2001, the 30 to 34 age bracket was dominated by those residing in rented, not owned dissemination areas, in the central city.

In 2006, the lowest proportion of those between 0 to 4 years old resides in owned dissemination areas in the central city, only 3.5 percent, followed by those living in owned dissemination areas in the outer suburbs and in the inner suburbs at 4.5 and 5.2 percent respectively. The 0 to 4 age bracket is the most dominant in rented dissemination areas in the inner suburbs. Furthermore, rented dissemination areas in all three urban zones maintain a higher proportion of the youngest age bracket than their owned counterparts. The proportions of those residents in the 0 to 4 age range in all urban zone and tenure pairings has remained fairly constant from 2001 to 2006.

In 2006, the segment of the population over the age of 60 maintains the highest proportional presence among owned dissemination areas in the outer suburbs at 28.9 percent, followed by owned dissemination areas in the inner suburbs and central city at 23.3 and 22.5 percent respectively. In 2001, rented dissemination areas in all three urban zones maintained significantly lower proportions of those over 60 years of age than their owned counterparts, although this gap has narrowed slightly by 2006.

Figure 4.4 – Age Profile of Higher Density Districts - 2006

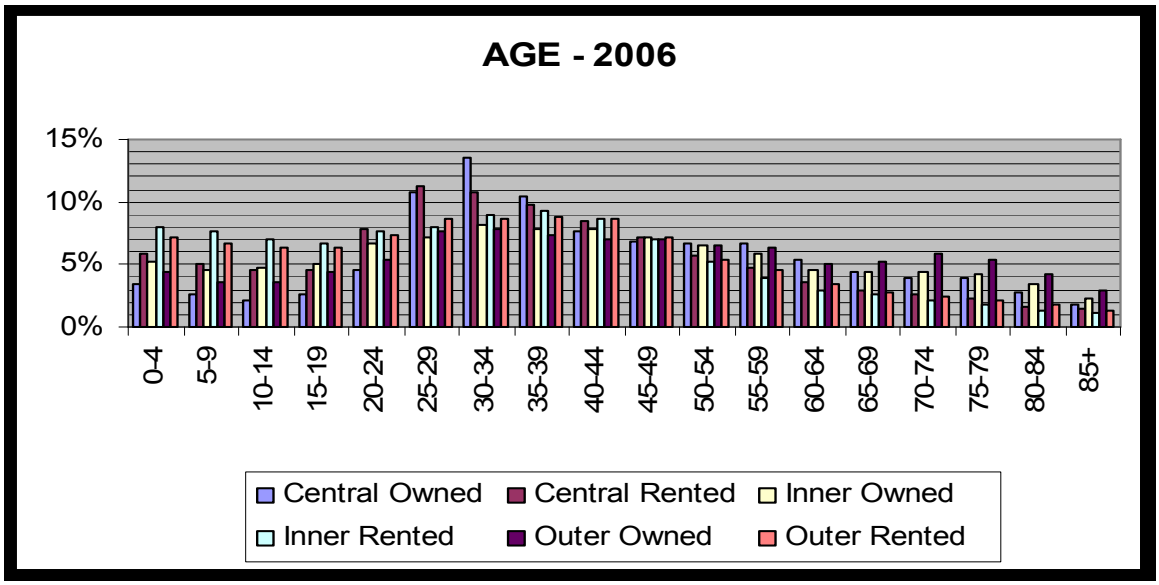


Table 4.3 – Age Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
0-4 (2001)	3.2%	6.2%	5.1%	8.2%	4.5%	7.6%
5-9 (2001)	2.9%	5.6%	5.0%	8.3%	4.0%	7.5%
10-14 (2001)	2.4%	4.3%	4.6%	6.9%	3.7%	6.3%
15-19 (2001)	2.9%	4.1%	4.7%	6.4%	4.3%	5.7%
20-24 (2001)	5.1%	7.0%	5.6%	6.8%	5.1%	7.4%
25-29 (2001)	9.2%	11.3%	6.4%	8.2%	6.6%	9.6%
30-34 (2001)	9.8%	12.3%	7.3%	9.8%	7.4%	9.8%
35-39 (2001)	8.9%	10.9%	7.5%	9.9%	7.3%	9.9%
40-44 (2001)	8.2%	8.7%	7.3%	8.2%	6.7%	8.2%
45-49 (2001)	7.9%	6.7%	6.7%	6.2%	6.3%	6.5%
50-54 (2001)	7.9%	5.2%	6.6%	4.7%	6.6%	4.9%
55-59 (2001)	6.4%	3.8%	5.2%	3.3%	5.9%	3.8%
60-64 (2001)	5.7%	3.2%	5.2%	3.0%	6.1%	3.0%
65-69 (2001)	5.1%	2.9%	5.6%	2.7%	6.4%	2.7%
70-74 (2001)	5.1%	2.6%	5.8%	2.5%	6.8%	2.4%
75-79 (2001)	4.3%	2.2%	5.3%	2.2%	6.4%	2.3%
80-84 (2001)	2.7%	1.5%	3.5%	1.5%	3.9%	1.5%
85+ (2001)	1.8%	1.5%	2.4%	1.2%	1.9%	1.1%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
0-4 (2006)	3.5%	5.9%	5.2%	8.0%	4.5%	7.2%
5-9 (2006)	2.5%	5.0%	4.6%	7.6%	3.6%	6.7%
10-14 (2006)	2.2%	4.5%	4.7%	7.0%	3.6%	6.4%
15-19 (2006)	2.6%	4.5%	5.1%	6.8%	4.4%	6.3%
20-24 (2006)	4.6%	7.9%	6.6%	7.7%	5.4%	7.3%
25-29 (2006)	10.8%	11.2%	7.2%	7.9%	7.6%	8.6%

30-34 (2006)	13.6%	10.7%	8.1%	8.9%	7.9%	8.6%
35-39 (2006)	10.4%	9.8%	7.8%	9.3%	7.3%	8.9%
40-44 (2006)	7.6%	8.5%	7.8%	8.6%	7.0%	8.7%
45-49 (2006)	6.8%	7.1%	7.2%	7.1%	7.1%	7.2%
50-54 (2006)	6.6%	5.7%	6.5%	5.3%	6.5%	5.4%
55-59 (2006)	6.6%	4.8%	5.9%	3.9%	6.4%	4.5%
60-64 (2006)	5.5%	3.5%	4.5%	2.9%	5.1%	3.4%
65-69 (2006)	4.5%	3.0%	4.4%	2.6%	5.3%	2.8%
70-74 (2006)	4.0%	2.6%	4.3%	2.1%	5.9%	2.4%
75-79 (2006)	3.9%	2.2%	4.2%	1.9%	5.4%	2.1%
80-84 (2006)	2.8%	1.6%	3.5%	1.4%	4.2%	1.8%
85+ (2006)	1.9%	1.5%	2.3%	1.1%	3.0%	1.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

In both 2001 and 2006, the general population of the central city maintains the largest proportion of those residents between the ages of 20 and 39. Furthermore, the proportions of those residents part of the 40 and over age profile have remained more evenly distributed among the three urban zones in both 2001 and 2006. Higher proportions of younger residents under the age of 20 live in the outer suburbs, followed by the inner suburbs and then the central city. Both owned and rented dissemination areas in the central city and inner suburbs maintain relatively similar age profiles to the general populations of the central city and inner suburbs, respectively. Finally, among the general population of the GTA in 2001, the most dominant age range is between 35 to 39, and by 2006, the most dominant age range increases to 40 to 44. Dissemination areas of both tenure types in the central city maintain significantly higher proportions of young adults than the general population of the GTA, while rented dissemination areas in both the inner and outer suburbs maintain age profiles that are more consistent with the GTA's general population.

Figure 4.5 – Age Profile of Comparable Groups - 2006

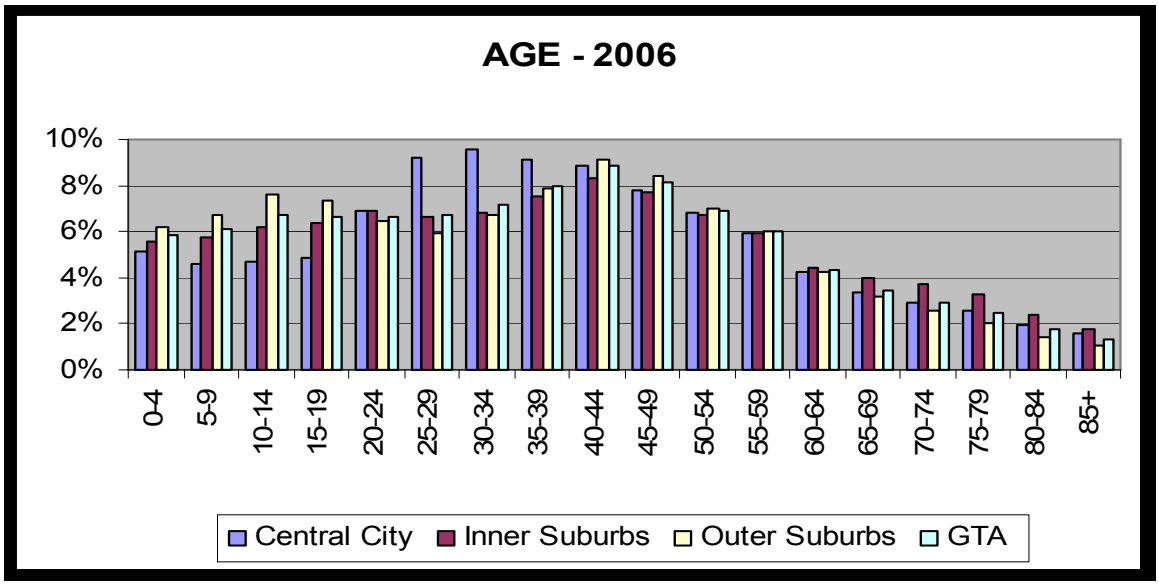


Table 4.4 – Age Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
0-4 (2001)	5.4%	6.0%	6.5%	6.2%
5-9 (2001)	5.2%	6.5%	7.6%	6.8%
10-14 (2001)	4.8%	6.2%	7.6%	6.7%
15-19 (2001)	4.9%	6.3%	7.2%	6.5%
20-24 (2001)	6.7%	6.6%	6.3%	6.5%
25-29 (2001)	9.7%	6.8%	6.2%	7.0%
30-34 (2001)	10.5%	7.6%	7.5%	8.1%
35-39 (2001)	10.1%	8.5%	9.3%	9.2%
40-44 (2001)	8.6%	8.0%	9.1%	8.7%
45-49 (2001)	7.3%	7.1%	7.8%	7.5%
50-54 (2001)	6.3%	6.5%	7.0%	6.7%
55-59 (2001)	4.6%	4.8%	4.9%	4.8%
60-64 (2001)	3.7%	4.4%	3.7%	3.9%
65-69 (2001)	3.4%	4.2%	3.0%	3.5%
70-74 (2001)	3.1%	3.9%	2.5%	3.0%
75-79 (2001)	2.6%	3.1%	1.9%	2.4%
80-84 (2001)	1.6%	1.8%	1.0%	1.4%
85+ (2001)	1.5%	1.4%	0.8%	1.1%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
0-4 (2006)	5.1%	5.5%	6.2%	5.8%
5-9 (2006)	4.6%	5.8%	6.7%	6.1%
10-14 (2006)	4.7%	6.2%	7.6%	6.7%
15-19 (2006)	4.9%	6.4%	7.4%	6.7%
20-24 (2006)	6.9%	6.9%	6.5%	6.7%
25-29 (2006)	9.2%	6.6%	6.0%	6.7%

30-34 (2006)	9.5%	6.8%	6.7%	7.2%
35-39 (2006)	9.1%	7.5%	7.9%	8.0%
40-44 (2006)	8.9%	8.3%	9.1%	8.8%
45-49 (2006)	7.8%	7.7%	8.4%	8.1%
50-54 (2006)	6.8%	6.7%	7.0%	6.9%
55-59 (2006)	5.9%	5.9%	6.0%	6.0%
60-64 (2006)	4.3%	4.4%	4.2%	4.3%
65-69 (2006)	3.4%	4.0%	3.2%	3.4%
70-74 (2006)	2.9%	3.7%	2.6%	3.0%
75-79 (2006)	2.6%	3.3%	2.0%	2.5%
80-84 (2006)	1.9%	2.4%	1.4%	1.8%
85+ (2006)	1.6%	1.8%	1.0%	1.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.2.2 Family Structure and Presence of Children

The proportions of families in the urban zone and tenure pairings that are either couple families or lone parent families have remained virtually unchanged from 2001 to 2006. Rented dissemination areas in all three urban zones have higher proportions of lone parent families. Accordingly, owned dissemination areas in the three urban zones maintain higher proportions of couple families, being approximately 10 percent higher than their rented counterparts. In 2006, the highest proportion of couple families resided in owned dissemination areas in the central city, while the lowest proportion resided in rented dissemination areas in the inner suburbs.

Figure 4.6 – Family Structure of Higher Density Districts - 2006

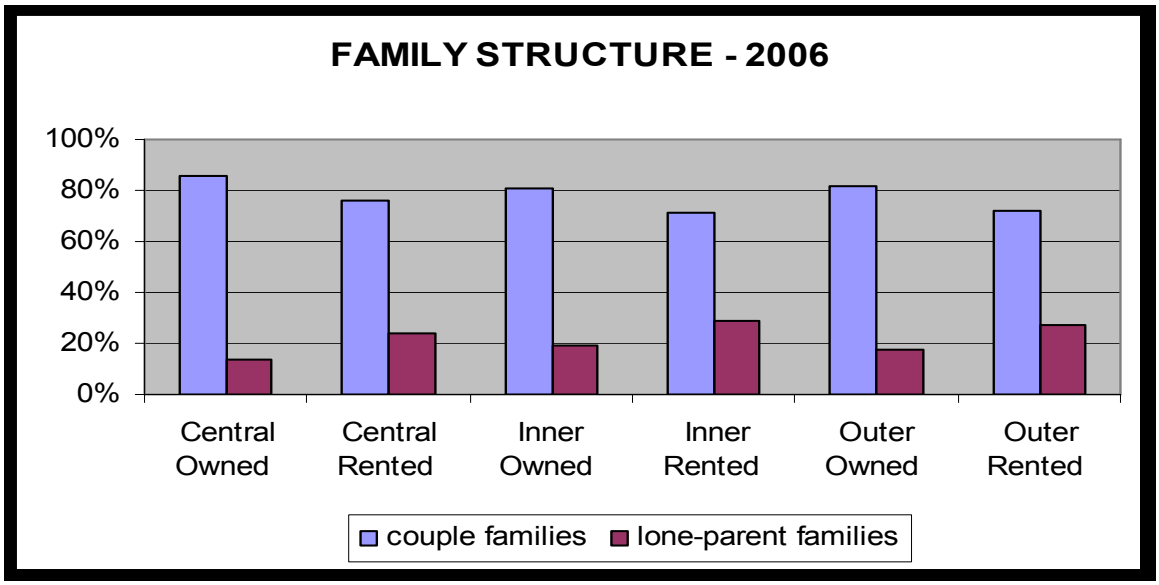


Table 4.5 – Family Structure Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Couple families (2001)	85.5%	75.0%	82.0%	71.5%	84.7%	73.1%
Lone-parent families (2001)	14.8%	25.0%	18.1%	28.6%	15.4%	27.1%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Couple families (2006)	85.7%	75.6%	80.7%	71.2%	81.8%	72.3%
Lone-parent families (2006)	13.7%	24.2%	19.0%	28.7%	17.9%	27.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

The highest proportion of those families without children, in both 2001 and 2006, resided in owned dissemination areas in the central city. Childless families in this urban zone and tenure pairing increased by approximately 7 percent between 2001 and 2006 to 68.5 percent of all families. In owned dissemination areas in the outer suburbs, those families that included children increased approximately 5 percent to almost 45 percent of all families in that urban zone and tenure pairing. Rented dissemination areas in the inner suburbs maintain the highest proportion of families with children at 66.9 percent in 2006,

representing only a marginal increase since 2001. It is only in owned dissemination areas in the central city and outer suburbs that childless families outnumber those with children in 2006.

Figure 4.7 – Presence of Children in Higher Density Districts - 2006

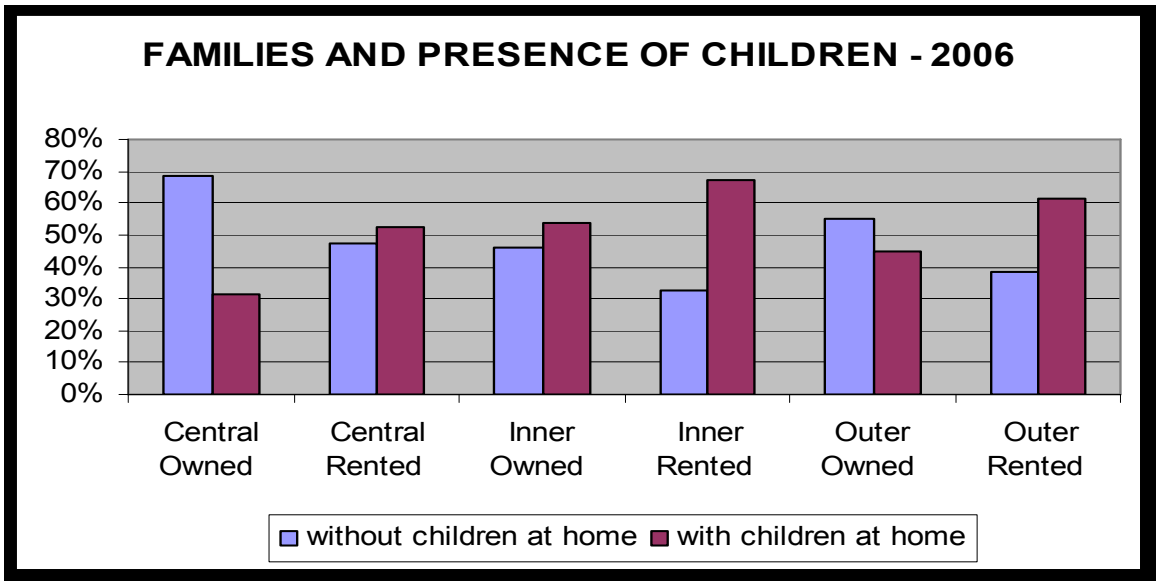


Table 4.6 – Presence of Children Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Without children at home (2001)	61.7%	47.5%	49.5%	33.6%	60.3%	41.4%
With children at home (2001)	37.8%	52.6%	50.7%	66.4%	39.9%	58.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Without children at home (2006)	68.5%	47.2%	45.8%	32.5%	54.7%	38.4%
With children at home (2006)	31.2%	52.4%	54.0%	66.9%	44.7%	61.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Among the general population of the central city, inner suburbs and outer suburbs, the proportions of couple and lone parent families has remained relatively unchanged from 2001 to 2006. In the three urban zones the proportions of lone parent families ranges between approximately 14 to 20 percent, with the outer suburbs hovering at the lower end of that range. Rented

dissemination areas in all urban zones maintain substantially higher proportions of lone parent families than the general populations of their respective urban zones, while owned dissemination areas maintain lower or marginally higher proportions. The proportion of the presence of children in families has also remained relatively constant among the general population of the three urban zones between both census years. In 2006, it ranges from 52.6 to 62 to 66.9 percent of all families in the central city, inner suburbs and outer suburbs respectively. Owned dissemination areas in the three urban zones all maintain substantially higher proportions of families without children than the general populations of their respective urban zones, while rented dissemination areas maintain proportions of families without children that are more consistent with the general populations of their respective urban zones. Among the general population of the GTA, the family structure has remained relatively constant between the two census years.

Figure 4.8 – Family Structure of Comparable Groups - 2006

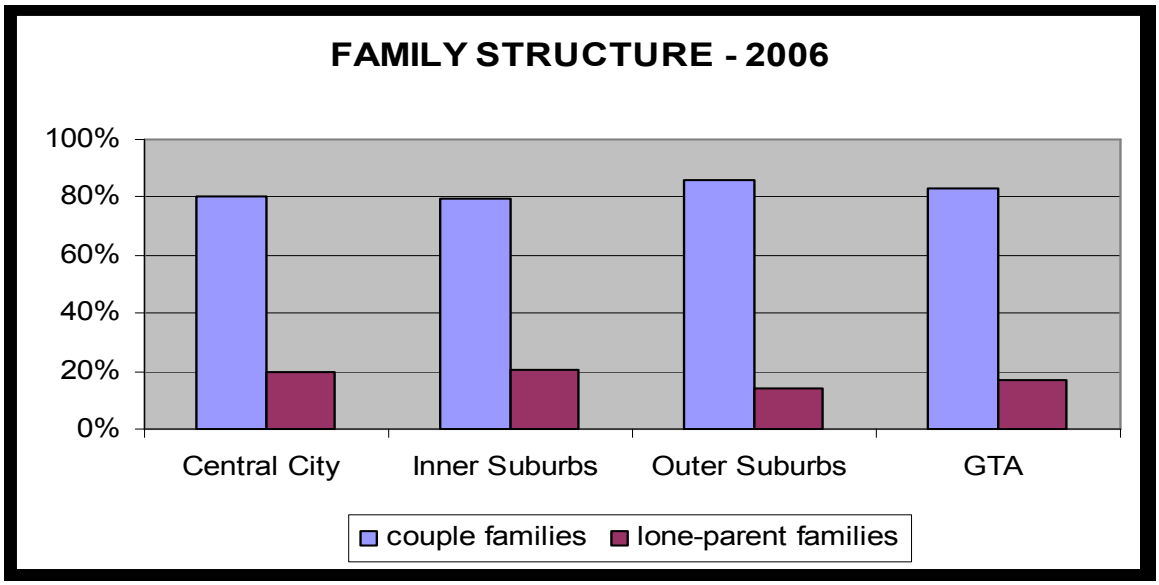


Figure 4.9 – Presence of Children in Comparable Groups - 2006

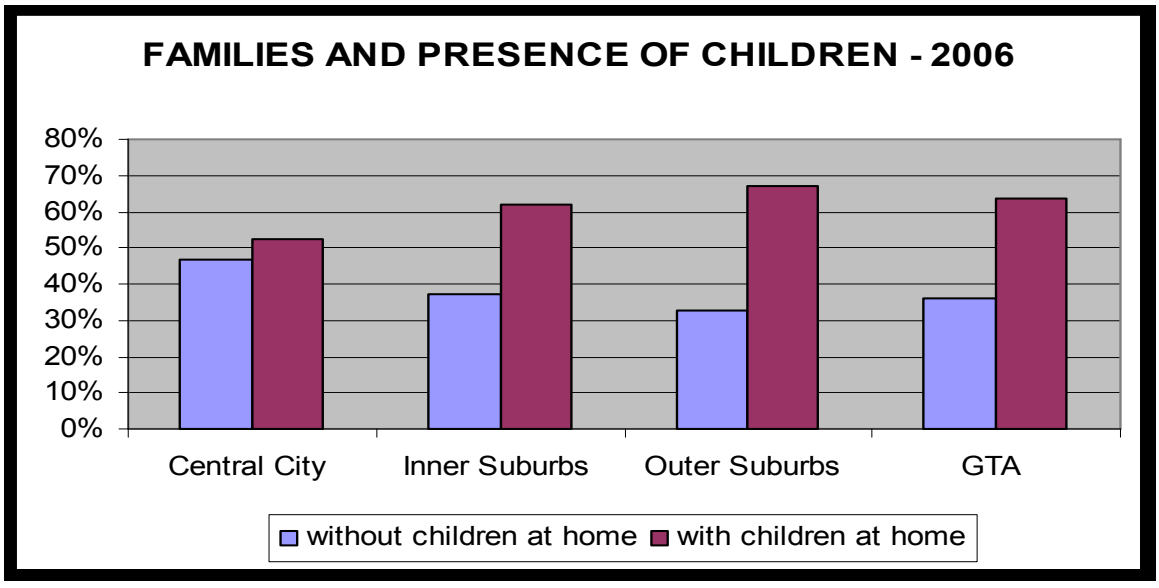


Table 4.7 – Family Structure and Presence of Children Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Couple families (2001)	80.4%	80.1%	86.9%	83.8%
Lone-parent families (2001)	19.6%	19.9%	13.0%	16.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Without children at home (2001)	45.0%	37.1%	32.8%	36.0%
With children at home (2001)	55.1%	62.9%	67.2%	64.0%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Couple families (2006)	80.1%	79.5%	85.9%	83.2%
Lone-parent families (2006)	19.7%	20.3%	13.9%	16.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Without children at home (2006)	46.7%	37.4%	32.6%	36.0%
With children at home (2006)	52.6%	62.0%	66.9%	63.5%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.2.3 Number and Age of Children

In all urban zone and tenure pairings in both 2001 and 2006, of those with children, 1 child families are the most common, followed by 2 children and finally by 3 or more children families. Owned dissemination areas in the central city maintain the lowest proportion of families with 3 or more children, followed by owned dissemination areas in the outer suburbs and then by those in the inner suburbs, while rented dissemination areas in the inner suburbs maintain the highest. Between 2001 and 2006, the proportion of families with 3 or more children in all three urban zone and tenure pairings has decreased. Owned dissemination areas in the central city maintain the lowest proportions of all numbers of children present in a family, while rented dissemination areas in the inner suburbs maintain the highest. In addition, the proportions of families with all three numbers of children have decreased in owned dissemination areas in the central city between 2001 and 2006.

Figure 4.10 – Number of Children in Higher Density Districts - 2006

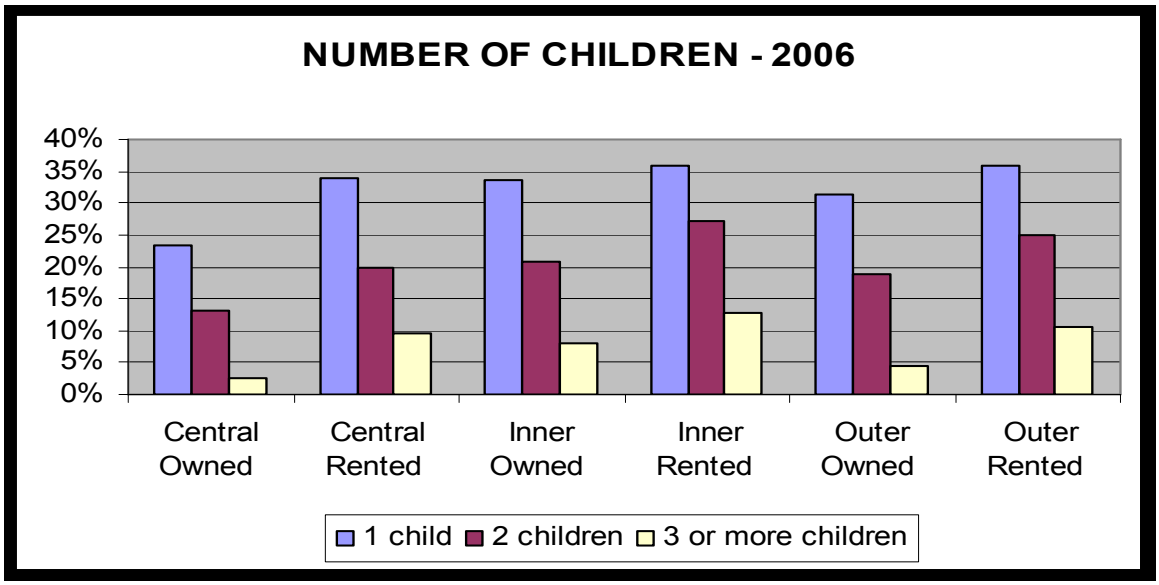


Table 4.8 – Number of Children Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
1 child (2001)	28.0%	35.0%	30.9%	35.6%	26.7%	34.8%
2 children (2001)	15.9%	20.7%	19.8%	26.4%	16.1%	24.0%
3 or more children (2001)	4.0%	9.2%	8.9%	14.6%	5.5%	11.1%
1 child (2006)	23.5%	33.8%	33.5%	36.0%	31.5%	35.8%
2 children (2006)	13.1%	19.8%	20.8%	27.1%	18.8%	25.1%
3 or more children (2006)	2.6%	9.5%	8.0%	12.7%	4.5%	10.5%

The most common age range for children living at home in 2006 for all urban zone and tenure pairings is 6 to 14 years old. This has remained unchanged since 2001. In 2006, rented dissemination areas in all three urban zones maintain higher proportions of children less than 6 years of age than their owned counterparts. Furthermore, in 2006, owned dissemination areas in all three urban zones maintain higher proportions of children in the oldest age range living at home, those that are 25 years and older, than their rented counterparts.

Figure 4.11 – Age of Children in Higher Density Districts - 2006

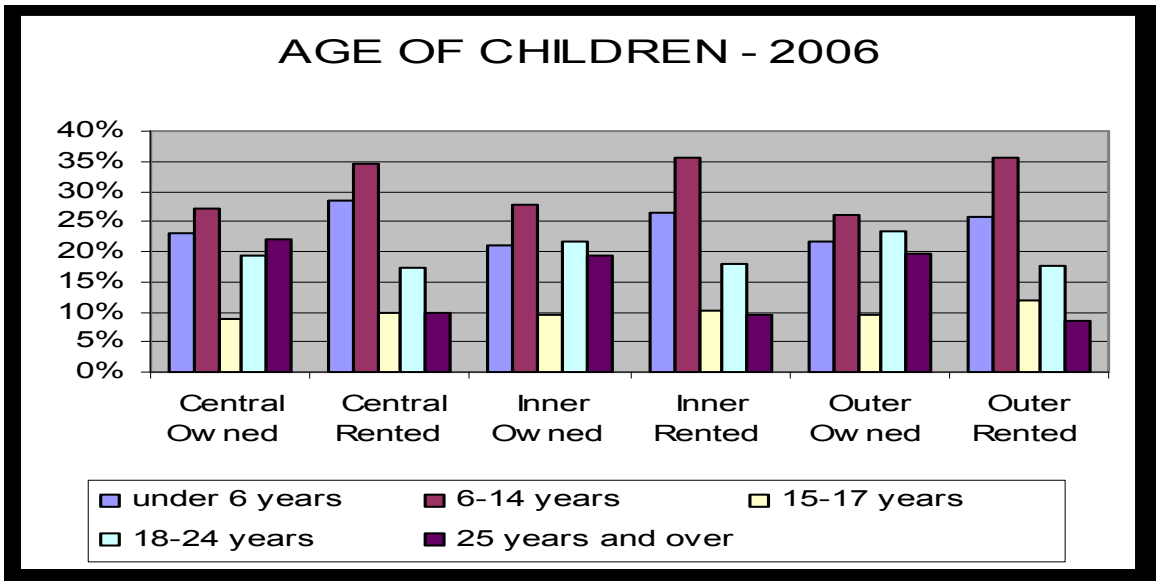


Table 4.9 – Age of Children Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Under 6 years (2001)	22.4%	30.5%	21.8%	27.4%	22.1%	29.7%
6-14 years (2001)	24.4%	35.0%	29.3%	36.9%	30.9%	37.2%
15-17 years (2001)	10.8%	9.6%	9.4%	10.4%	11.1%	10.1%
18-24 years (2001)	19.8%	15.2%	19.9%	16.1%	21.1%	15.1%
25 years and over (2001)	22.2%	9.7%	20.0%	8.9%	15.1%	7.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Under 6 years (2006)	23.0%	28.4%	21.0%	26.4%	21.7%	25.8%
6-14 years (2006)	27.1%	34.6%	27.7%	35.7%	26.0%	35.6%
15-17 years (2006)	8.9%	9.8%	9.6%	10.0%	9.3%	11.8%
18-24 years (2006)	19.4%	17.3%	21.7%	17.8%	23.3%	17.5%
25 years and over (2006)	22.0%	9.7%	19.5%	9.6%	19.5%	8.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Among the general population of the three urban zones in 2006, 1 child families are most common in the central city and inner suburbs, while 2 children households are most common in the outer suburbs. Families with 3 or more children are the least common in all urban zones, their proportions increasing with distance from the central city. Owned dissemination areas in all three urban

zones maintain lower proportions of families with three or more children than the general populations of their respective urban zones, while rented dissemination areas maintain higher or marginally lower proportions. The 6 to 14 age range is most common among the general population of all three urban zones in 2006. Furthermore, in 2006, the central city maintains the highest proportion of children under 6 years of age. All urban zone and tenure pairings maintain at least marginally higher proportions of children less than six years of age than the general populations of their respective urban zones. The number and age of children profile of the general population in the three urban zones has remained relatively stable between 2001 and 2006.

Figure 4.12 – Number of Children in Comparable Groups - 2006

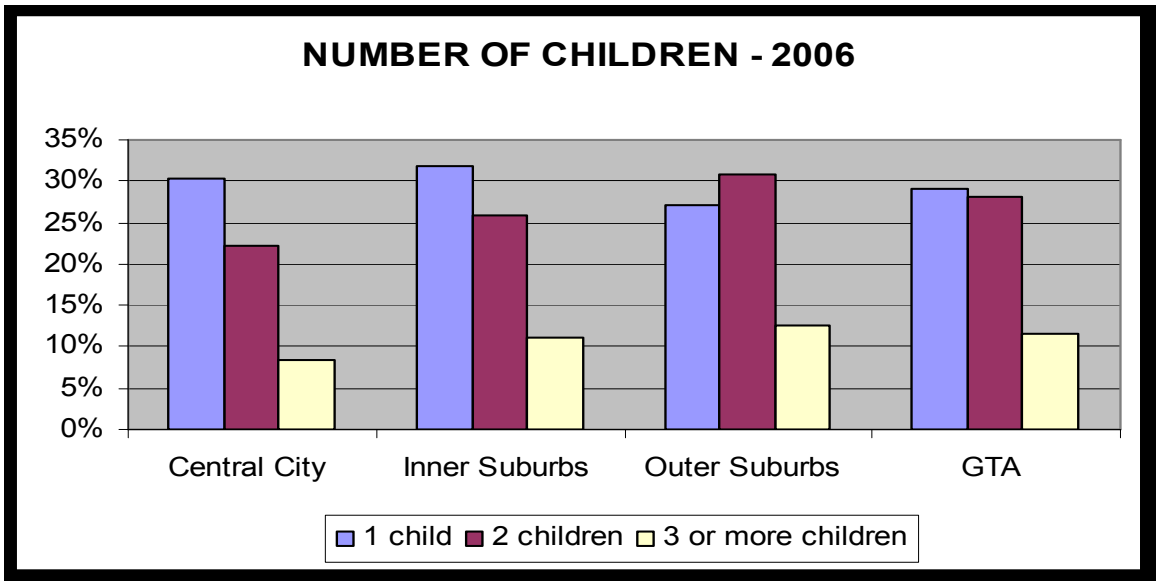


Figure 4.13 – Age of Children in Comparable Groups – 2006

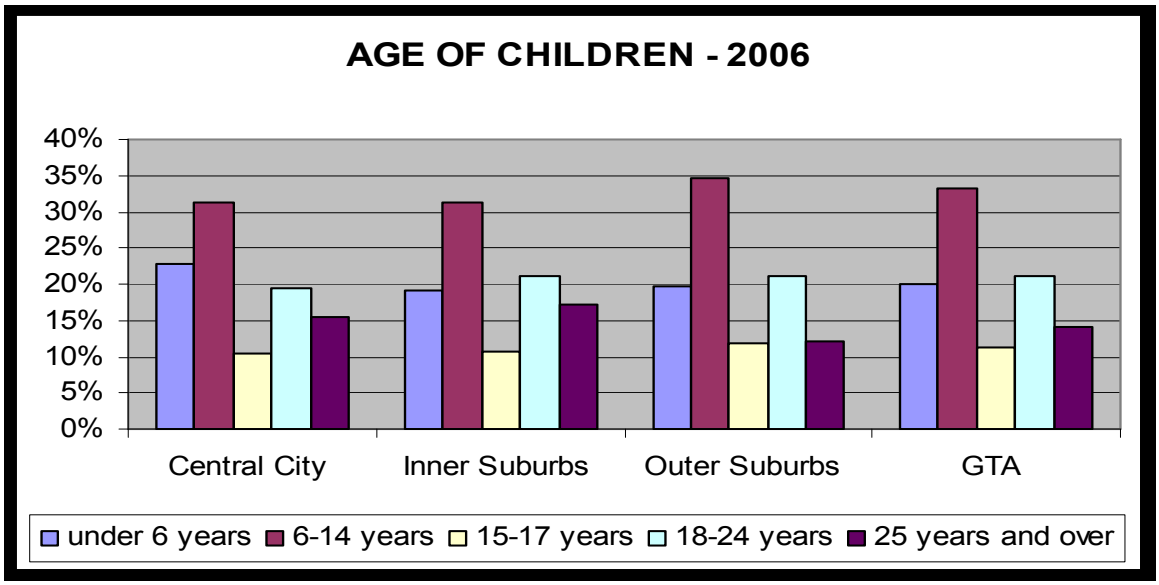


Table 4.10 – Number and Age of Children Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
1 child (2001)	30.8%	31.0%	26.6%	28.7%
2 children (2001)	23.4%	26.8%	31.1%	28.5%
3 or more children (2001)	9.8%	12.5%	13.7%	12.7%
Under 6 years (2001)	23.8%	20.8%	21.2%	21.4%
6-14 years (2001)	32.5%	32.0%	36.3%	34.5%
15-17 years (2001)	10.0%	10.4%	11.6%	11.0%
18-24 years (2001)	18.2%	20.2%	20.0%	19.8%
25 years and over (2001)	15.3%	16.6%	10.9%	13.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
1 child (2006)	30.4%	31.7%	27.2%	29.0%
2 children (2006)	22.2%	26.0%	30.8%	28.1%
3 or more children (2006)	8.3%	11.2%	12.6%	11.5%
Under 6 years (2006)	22.7%	19.1%	19.7%	19.9%
6-14 years (2006)	31.3%	31.2%	34.6%	33.2%
15-17 years (2006)	10.3%	10.6%	11.9%	11.3%
18-24 years (2006)	19.6%	21.2%	21.2%	21.0%
25 years and over (2006)	15.4%	17.3%	12.1%	14.0%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.2.4 Household Composition and Structure

Both owned and rented dissemination areas in the central city maintain the highest proportions of those households that are composed of non-family persons. The household is a statistical unit for which data are collected or derived and is a common element in the definition of several variables. It refers to a person or a group of persons who occupy the same dwelling and do not have a usual place of residence elsewhere in Canada. For census purposes, a person can only be a member of one household. Family persons and non-family persons refers to those individuals who are part of a census family and not part of a census family, respectively. This has remained unchanged from 2001 to 2006. Among owned and rented dissemination areas in the inner and outer suburbs, the distribution of non-family and family persons is relatively consistent and has remained so for both census years. In these urban zone and tenure pairings the proportion of non-family and family persons comprising a household hovers at approximately 20 and 80 percent respectively. Furthermore, the highest proportions of those who reside alone are in both owned and rented dissemination areas in the central city, followed by those in the outer suburbs and then by those in the inner suburbs. The most change among those living alone can be found among owned dissemination areas in the central city, with the proportion of those living alone increasing from 23.1 to 28.6 percent between 2001 and 2006. The proportions of those living alone in the other urban zone and tenure pairings remained relatively stable between the two censuses.

Figure 4.14 – Family Membership in Higher Density Districts - 2006

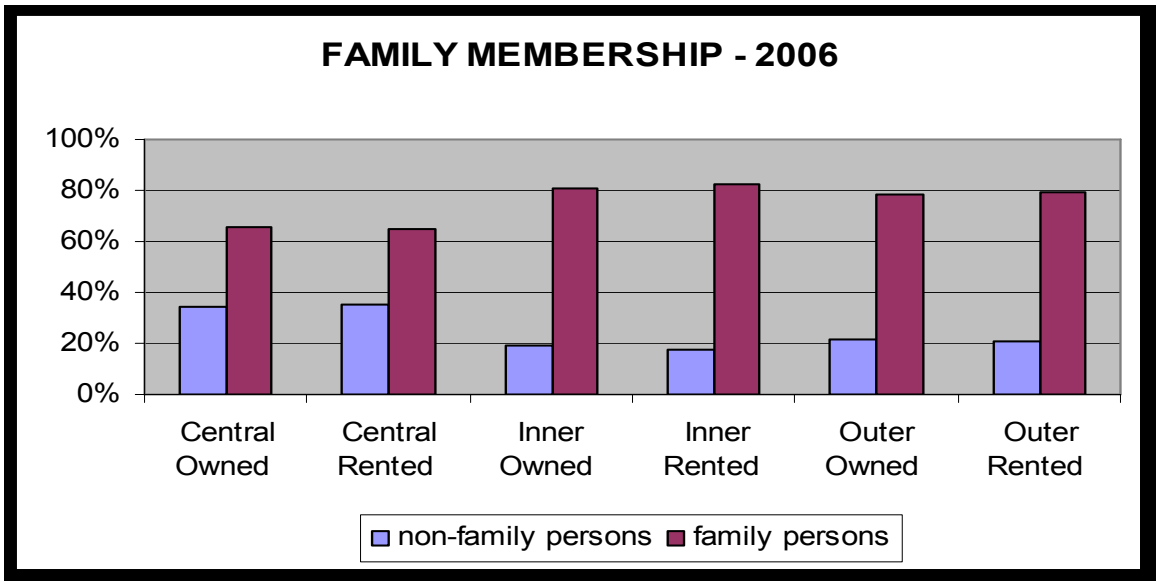


Figure 4.15 – Residents Living Alone in Higher Density Districts - 2006

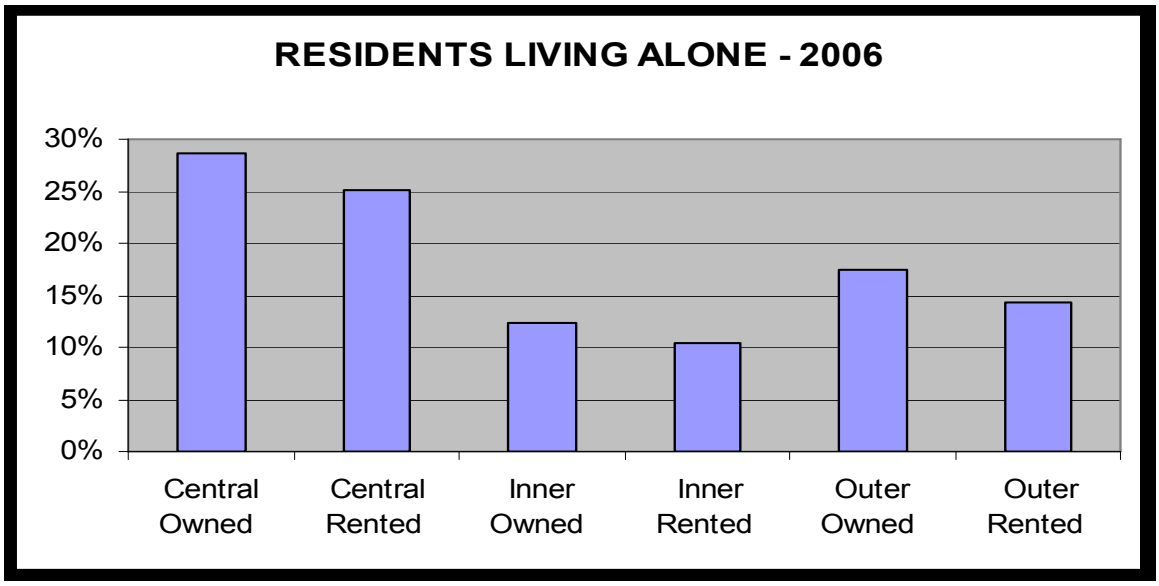


Table 4.11 – Family Membership and Lone Resident Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Non-family persons (2001)	30.6%	34.7%	18.8%	18.5%	22.1%	21.5%
Family persons (2001)	69.2%	65.4%	81.3%	81.5%	77.9%	78.5%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Living alone (2001)	23.1%	24.4%	12.4%	11.2%	16.5%	14.0%
Non-family persons (2006)	34.7%	35.1%	19.5%	17.7%	21.7%	21.0%
Family persons (2006)	65.3%	64.9%	80.5%	82.3%	78.2%	79.0%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Living alone (2006)	28.6%	25.1%	12.3%	10.5%	17.4%	14.3%

The smallest households can be found in owned and rented dissemination areas in the central city. Larger households of 6 or more persons occupy a small proportion of no more than 5 percent in all urban zone and tenure pairings. The highest proportions of households with 6 or more persons are found in both owned and rented dissemination areas in the inner suburbs. Two person households are relatively evenly distributed among both owned and rented dissemination areas in all three urban zones. The inner suburb's owned and rented dissemination areas maintain the highest proportions of those households containing 3 and 4 to 5 persons.

Figure 4.16 – Persons per Household in Higher Density Districts - 2006

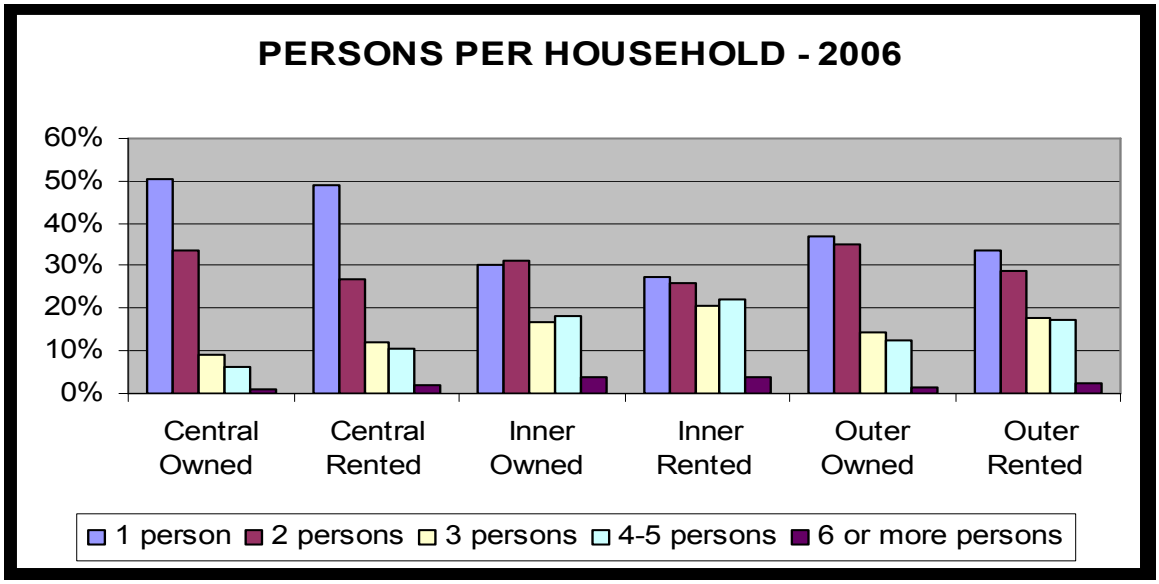


Table 4.12 – Persons Per Household Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
1 person (2001)	48.2%	48.0%	30.4%	29.3%	35.3%	33.0%
2 persons (2001)	32.5%	27.2%	33.2%	25.4%	37.9%	29.8%
3 persons (2001)	10.6%	12.2%	15.1%	18.7%	12.9%	16.8%
4-5 persons (2001)	7.7%	10.8%	17.4%	22.3%	12.0%	17.7%
6 or more persons (2001)	1.1%	1.7%	4.0%	4.3%	2.2%	2.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
1 person (2006)	50.2%	49.1%	30.2%	27.3%	37.0%	33.7%
2 persons (2006)	33.6%	26.7%	31.2%	25.9%	34.8%	28.8%
3 persons (2006)	8.9%	11.9%	16.7%	20.8%	14.5%	18.0%
4-5 persons (2006)	6.3%	10.4%	18.1%	22.2%	12.4%	17.5%
6 or more persons (2006)	0.8%	1.8%	3.6%	4.0%	1.5%	2.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Among the general population of the three urban zones in 2006, the highest proportion of non-family persons resides in the central city, followed by the inner and then the outer suburbs. In addition, the proportion of those living alone is highest in the central city, again followed by the inner and then the outer suburbs. The larger households are found in greater proportions among the inner and outer suburbs. In the outer suburbs, the highest proportion of households is composed of 4 to 5 persons. Furthermore, among the general populations of the central city, and inner and outer suburbs, the larger households with 3 and 4 to 5 persons are more dominant than in their respective higher density urban zone and tenure pairings, with the exception of 3 person households in rented dissemination areas in the inner suburbs. Finally, all higher density urban zone and tenure pairings maintain higher proportions of residents living alone than among the general populations of their respective urban zones.

Figure 4.17 – Family Membership in Comparable Groups - 2006

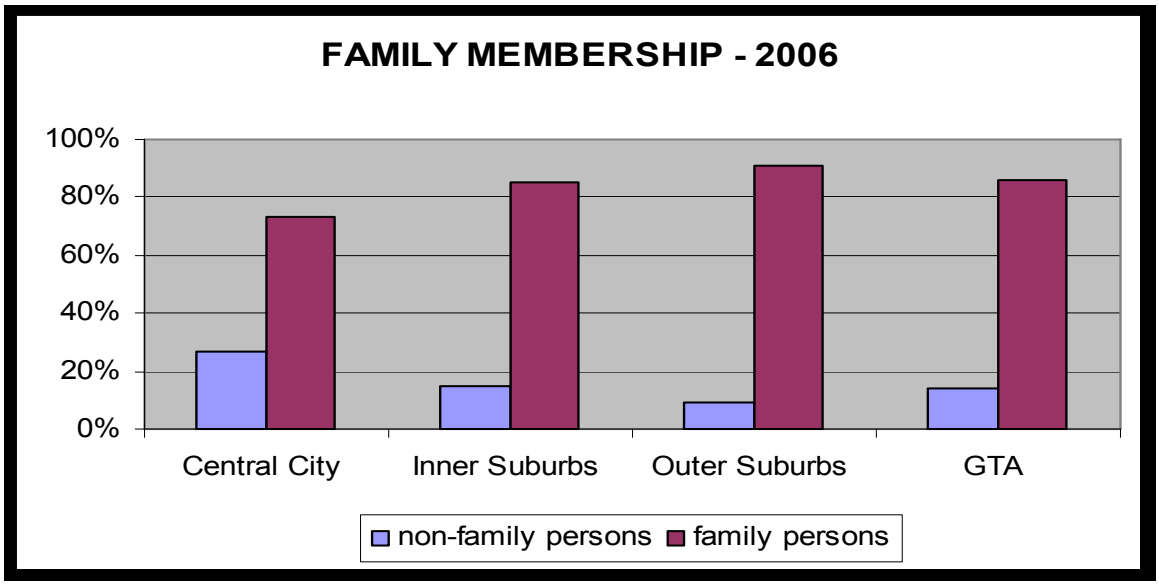


Figure 4.18 – Residents Living Alone in Comparable Groups - 2006

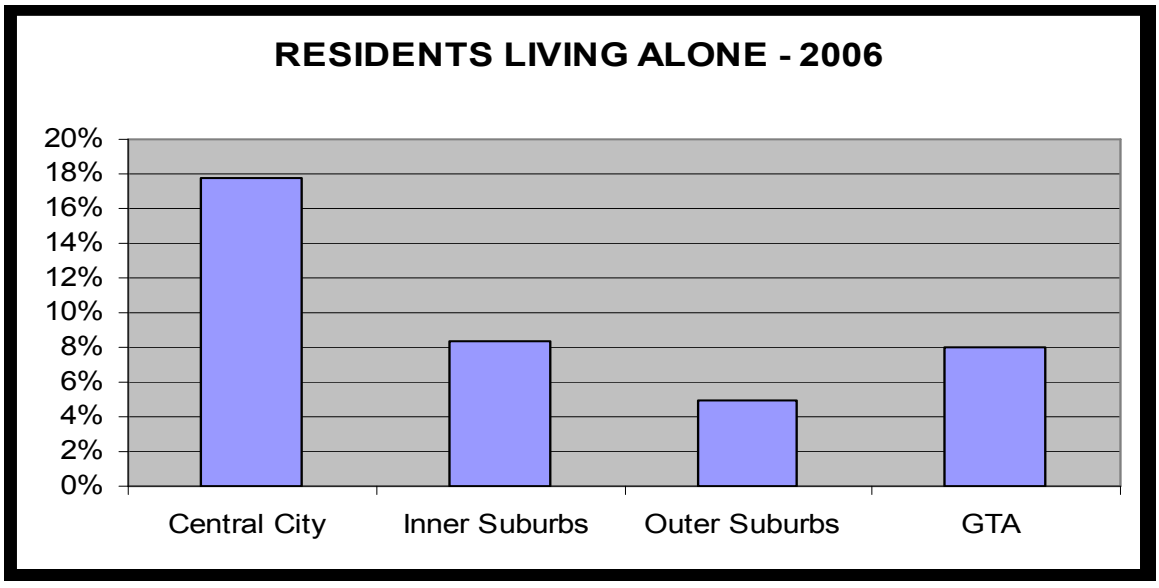


Figure 4.19 – Persons Per Household in Comparable Groups - 2006

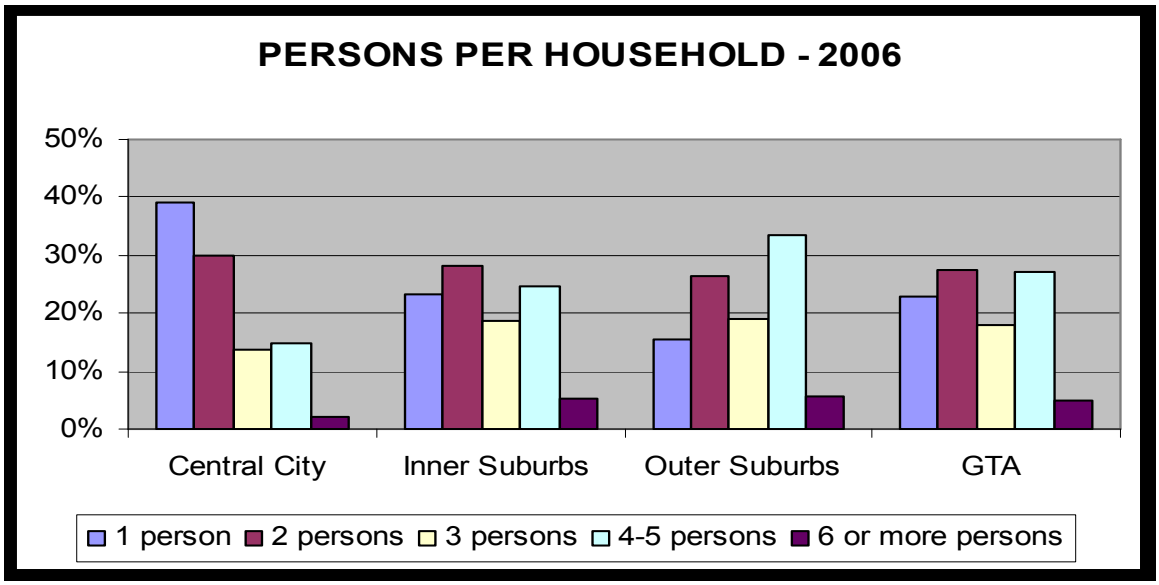


Table 4.13 – Household Composition and Structure Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Non-family persons (2001)	26.0%	13.9%	9.1%	13.7%
Family persons (2001)	74.0%	86.0%	90.9%	86.4%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Living alone (2001)	16.2%	7.6%	4.8%	7.7%
1 person (2001)	37.1%	21.6%	14.8%	21.9%
2 persons (2001)	29.7%	28.1%	26.7%	27.8%
3 persons (2001)	14.3%	18.4%	18.8%	17.6%
4-5 persons (2001)	16.1%	26.0%	34.1%	27.5%
6 or more persons (2001)	2.8%	5.8%	5.7%	5.0%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-family persons (2006)	27.0%	14.8%	9.2%	13.7%
Family persons (2006)	73.0%	85.1%	90.7%	86.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Living alone (2006)	17.8%	8.4%	5.0%	8.1%
1 person (2006)	39.2%	23.4%	15.4%	22.7%
2 persons (2006)	29.8%	28.1%	26.4%	27.6%
3 persons (2006)	13.8%	18.6%	19.1%	17.8%
4-5 persons (2006)	14.9%	24.7%	33.4%	27.0%
6 or more persons (2006)	2.3%	5.2%	5.7%	4.8%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.2.5 Number of Bedrooms per Dwelling

The average number of bedrooms per dwelling is highest among owned dissemination areas in the three urban zones, in 2006. Variation between the average numbers of bedrooms per dwelling is relatively minimal among the same tenure type, with the exception of rented dissemination areas in the central city, which maintain the lowest average number of bedrooms per dwelling among all urban zone and tenure pairings. The average numbers of bedrooms per dwelling have remained relatively stable across all urban zone and tenure pairings from 2001 to 2006, however, owned dissemination areas in the central city, inner and outer suburbs did experience small decreases. Among the general population of the three urban zones, the central city maintained the lowest average number of bedrooms per dwelling, while the outer suburbs maintained the highest. All higher density urban zone and tenure pairings maintained significantly lower average numbers of bedrooms per dwelling than the general populations of their respective urban zones. Furthermore, all higher density urban zone and tenure pairings maintained significantly lower average numbers of bedrooms per dwelling than the general population of the GTA overall.

Figure 4.20 – Number of Bedrooms per Dwelling in Higher Density Districts - 2006

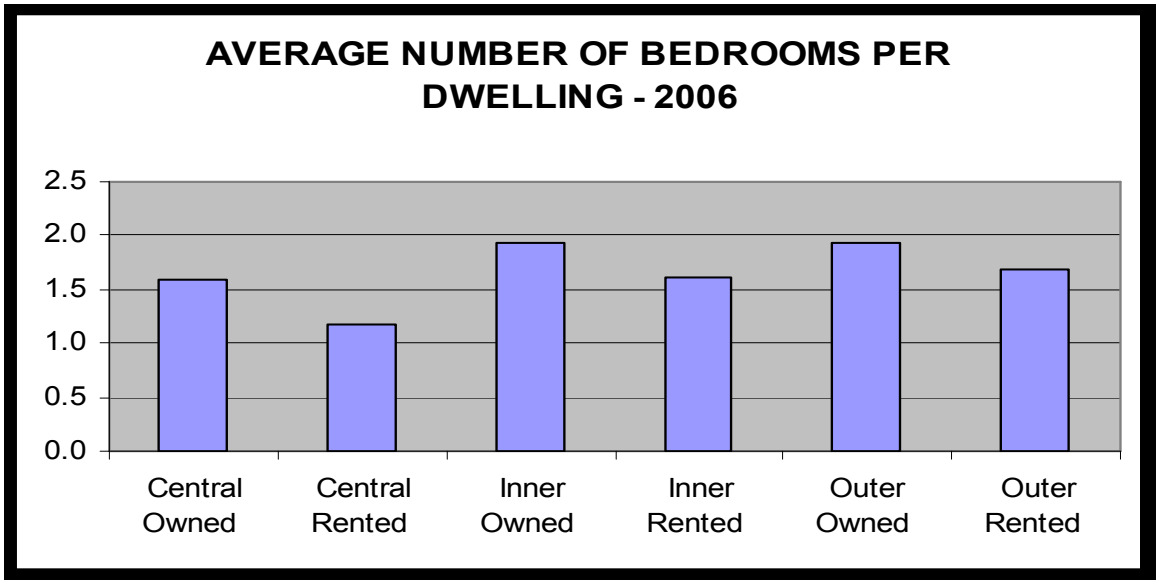


Table 4.14 – Number of Bedrooms per Dwelling Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Average number of bedrooms per dwelling (2001)	1.8	1.2	2.0	1.6	2.0	1.7
Average number of bedrooms per dwelling (2006)	1.6	1.2	1.9	1.6	1.9	1.7

Figure 4.21 – Number of Bedrooms per Dwelling in Comparable Groups - 2006

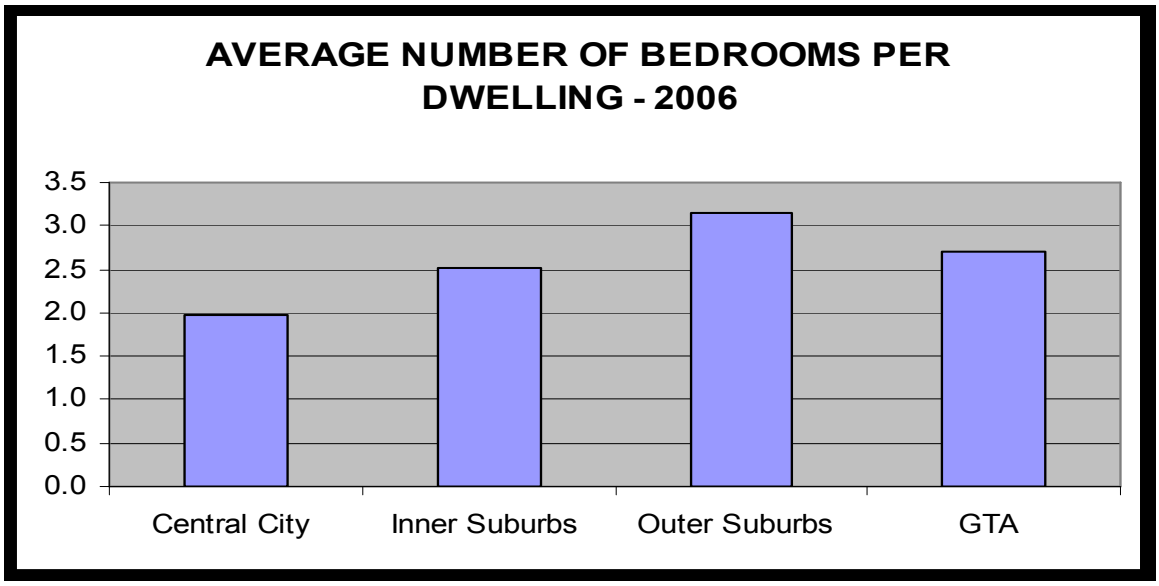


Table 4.15 – Number of Bedrooms per Dwelling Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Average number of bedrooms per dwelling (2001)	2.0	2.5	3.1	2.6
Average number of bedrooms per dwelling (2006)	2.0	2.5	3.1	2.7

4.2.6 Languages Spoken at Home

In 2001, among both owned and rented dissemination areas in all three urban zones, the highest proportion of languages spoken at home were official languages only, meaning English or French, or both. There was a dramatic change in this distribution by 2006. The proportion of non-official languages only spoken at home increased substantially in all urban zone and tenure pairings and even surpassed the proportion of official languages only spoken at home among owned dissemination areas in the inner suburbs. Furthermore, there has been a

significant narrowing of the gap between the proportion of those households where official languages only are spoken and those where non-official languages only are spoken, among both owned and rented dissemination areas in the outer suburbs. However, among owned dissemination areas in the central city, the proportion of households where only an official language is spoken increased by over 10 percent between 2001 and 2006 to 73.4 percent. There has been a significant reduction among all urban zone and tenure pairings of the proportion of households where both official and non-official languages are spoken. It has dwindled from a range of between 21.7 to 31.6 percent across all urban zone and tenure pairings to approximately 5 percent or less. Observing this dramatic change during only a 5 year period has prompted the researcher to verify the consistency between the 2001 and 2006 survey questionnaires. It has been confirmed that the questions relating to languages spoken at home have been asked in a uniform manner in both the 2001 and 2006 survey questionnaires. Overall, these trends are consistent with the trends of the general population across all three urban zones and with the trends of the general population of the GTA.

Figure 4.22 – Languages Spoken at Home in Higher Density Districts - 2006

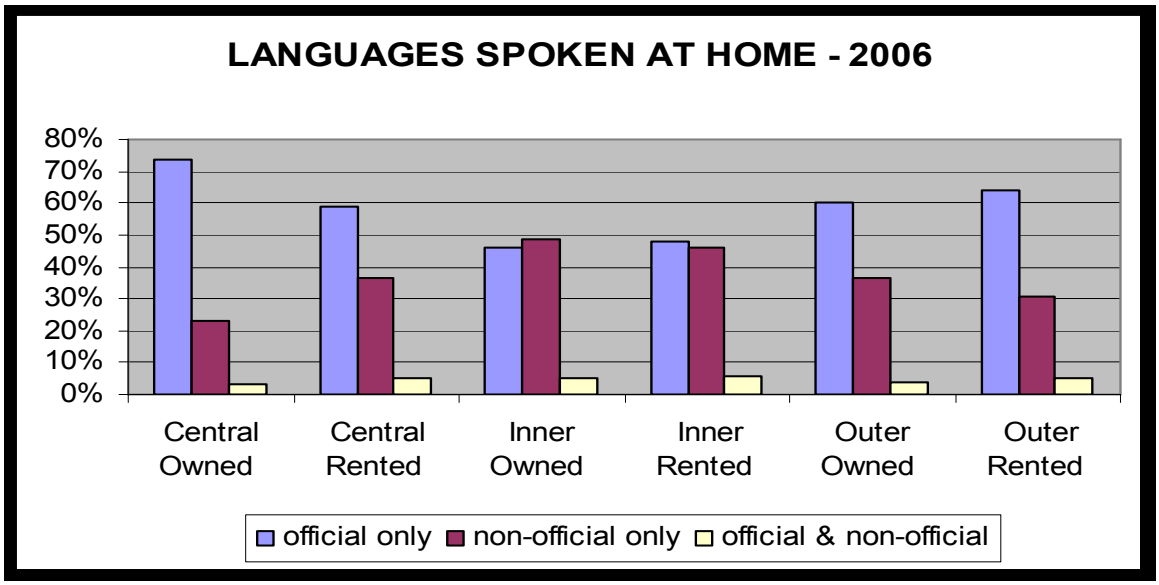


Table 4.16 – Home Language Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Official only (2001)	57.1%	51.5%	41.4%	44.6%	62.3%	61.0%
Non-official only (2001)	16.7%	22.3%	27.0%	26.8%	16.1%	15.5%
Official & non-official (2001)	25.8%	26.1%	31.6%	28.6%	21.7%	23.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Official only (2006)	73.7%	58.6%	46.2%	47.9%	59.9%	64.0%
Non-official only (2006)	22.9%	36.4%	48.7%	46.3%	36.3%	31.0%
Official & non-official (2006)	3.3%	4.9%	5.0%	5.7%	3.6%	4.9%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Figure 4.23 – Languages Spoken at Home in Comparable Groups - 2006

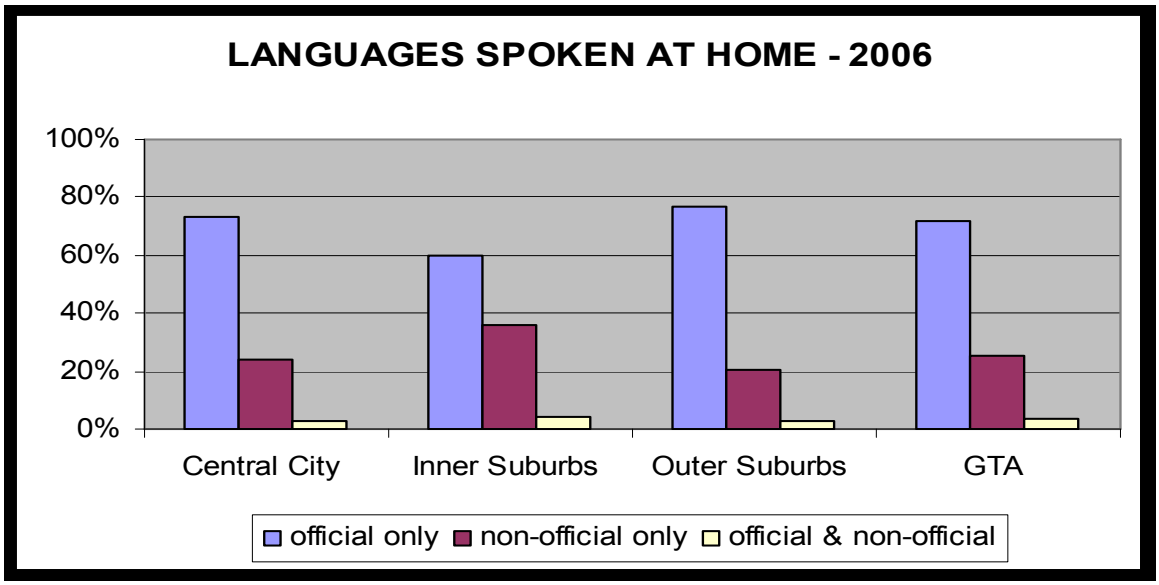


Table 4.17 – Home Language Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Official only (2001)	63.1%	53.9%	74.2%	66.0%
Non-official only (2001)	16.3%	20.4%	9.2%	13.9%
Official & non-official (2001)	20.5%	25.8%	16.6%	20.1%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Official only (2006)	73.4%	60.1%	76.8%	71.5%
Non-official only (2006)	23.6%	35.6%	20.1%	25.1%
Official & non-official (2006)	2.9%	4.3%	3.0%	3.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.2.7 Household Mobility Patterns

Between 2001 and 2006, the proportion of households who have changed their place of residence both within the year prior and 5 years prior to the census has increased for all urban zone and tenure pairings. In 2006, the proportions of those changing their place of residence within the year prior to the census is relatively constant among all urban zone and tenure pairings, although rented disseminations areas maintain higher proportions. Furthermore, in 2006, the

proportions of households that have changed their place of residence within five year period prior to the census also maintained relatively constant across urban zone and tenure pairings. However, the proportions of those households moving within a 5 year period prior to the census were also higher among rented dissemination areas. In 2006, the proportion of those households that have moved within the last 5 years sits in the 55 to 69 percent range, while those households moving within the last year sits in the 17 to 30 percent range.

Figure 4.24 – Household Mobility in Higher Density Districts – 1 Year - 2006

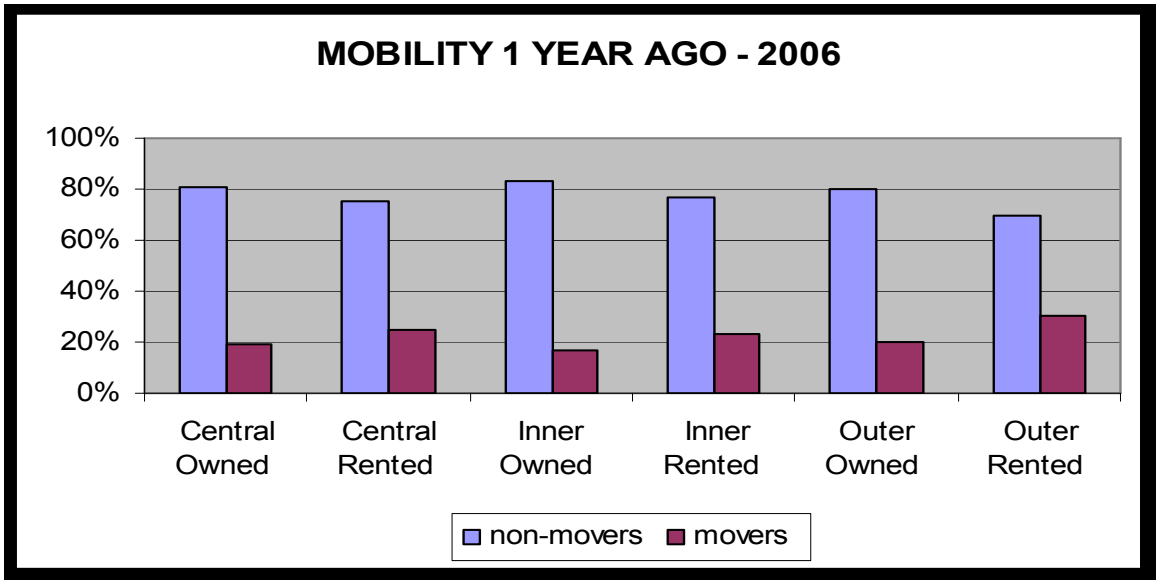


Figure 4.25 – Household Mobility in Higher Density Districts – 5 Year – 2006

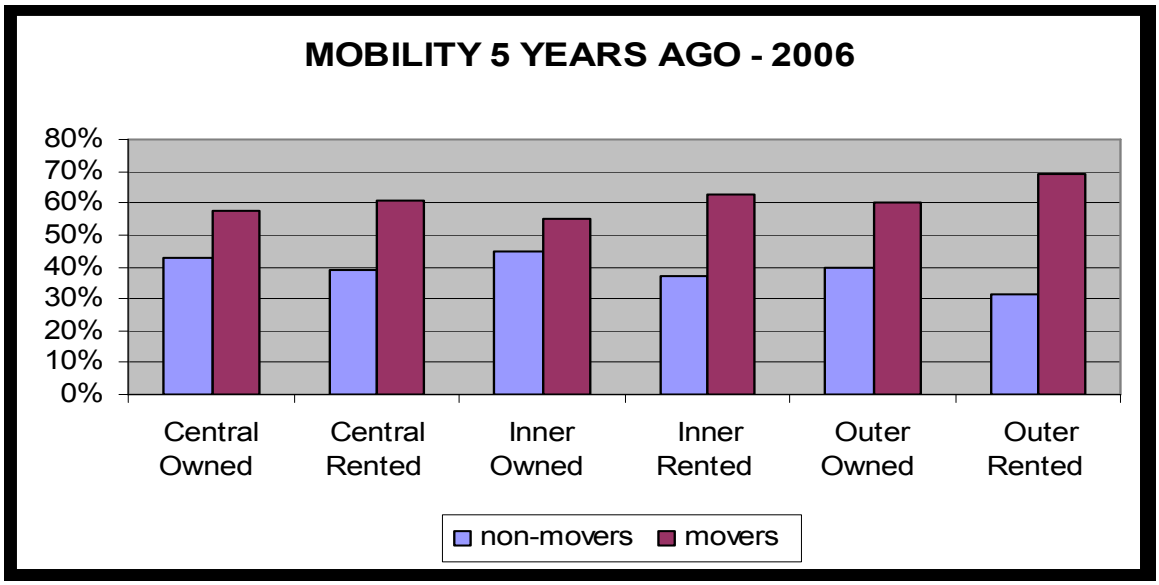


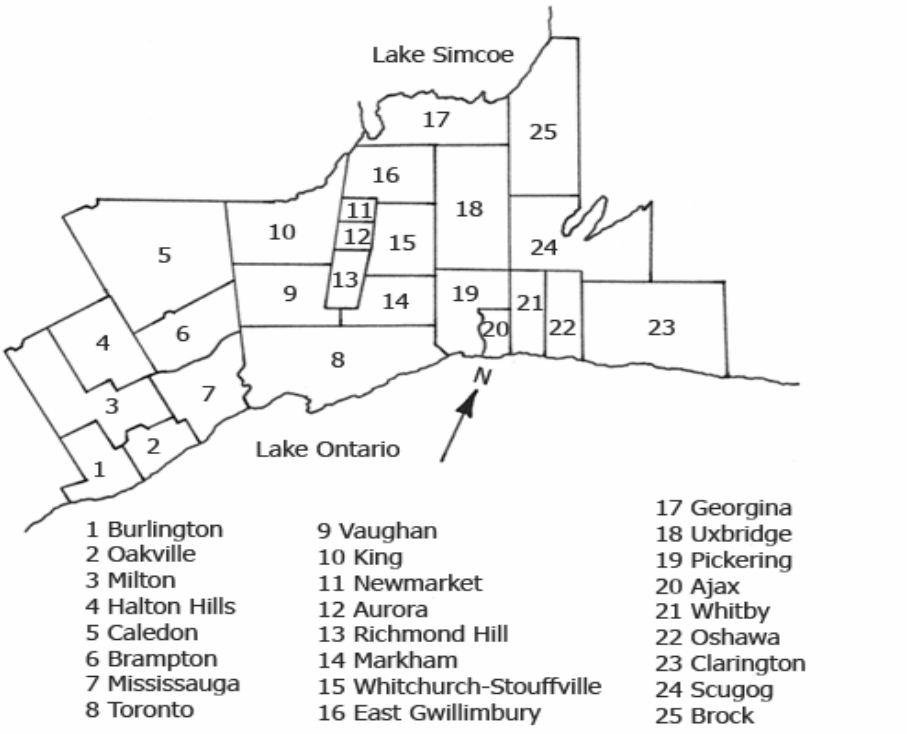
Table 4.18 – Mobility Data for Higher Density Districts – 1 and 5 Year – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Non-movers 1yr (2001)	84.5%	79.6%	84.1%	79.2%	80.8%	73.8%
Movers 1 yr (2001)	15.4%	20.4%	15.9%	20.8%	19.2%	26.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-movers 5 yr (2001)	47.9%	41.3%	48.2%	41.0%	43.6%	34.7%
Movers 5 yr (2001)	51.9%	58.7%	51.8%	58.9%	56.4%	65.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-movers 1yr (2006)	80.5%	75.1%	83.1%	76.8%	79.8%	69.7%
Movers 1 yr (2006)	19.5%	24.9%	16.9%	23.1%	20.2%	30.1%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-movers 5 yr (2006)	42.6%	38.9%	45.0%	37.1%	39.8%	31.2%
Movers 5 yr (2006)	57.4%	61.1%	55.0%	62.9%	60.1%	68.8%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

In 2006, both owned and rented dissemination areas in the outer suburbs maintained the highest proportions of households moving within a year of the census that were migrants. Migrants and non-migrants refer to those residents who have moved from a different census sub-division or within the same census

sub-division, respectively. See Figure 4.26. They were followed by rented dissemination areas in the central city and inner suburbs and then by owned

Figure 4.26 – Map of Census Sub-divisions in the GTA



dissemination areas in the central city and inner suburbs. This pattern represents a change since 2001 when the proportion of migrants in rented dissemination areas in the central city and inner suburbs were near the same level of the proportion of migrants in the outer suburbs. Furthermore, in 2006, among households moving within 5 years prior to the census, only owned dissemination areas in the central city and inner suburbs maintained proportions of non-migrants that were substantially higher than those of migrants. Among rented dissemination areas in the outer suburbs, the proportion of migrants is substantially higher than that of non-migrants.

Figure 4.27 – Migrant Status in Higher Density Districts – 1 Year – 2006

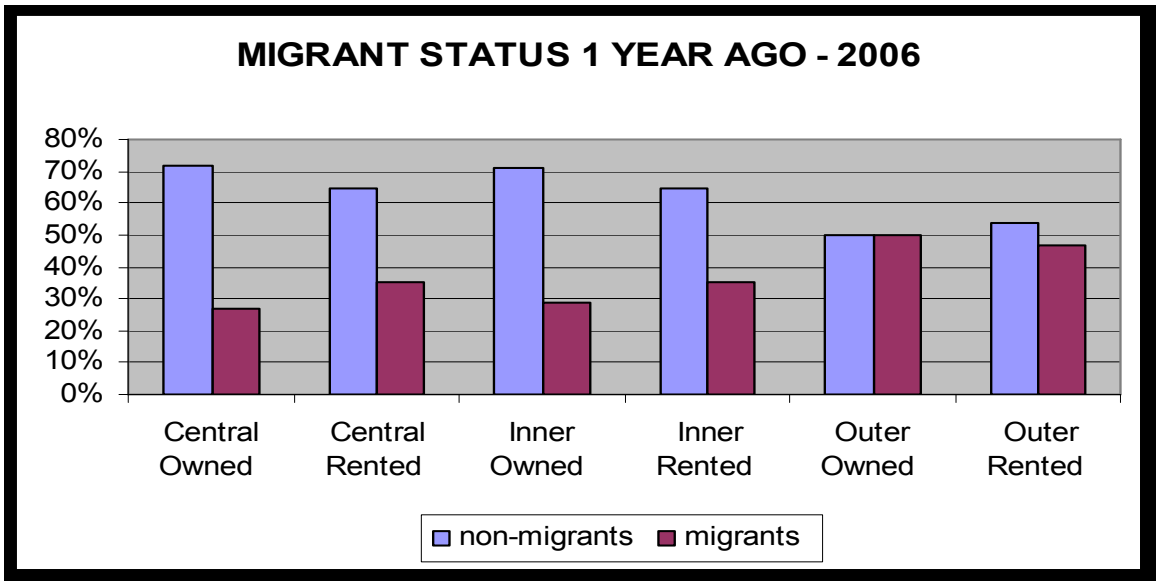


Figure 4.28 – Migrant Status in Higher Density Districts – 5 Year – 2006

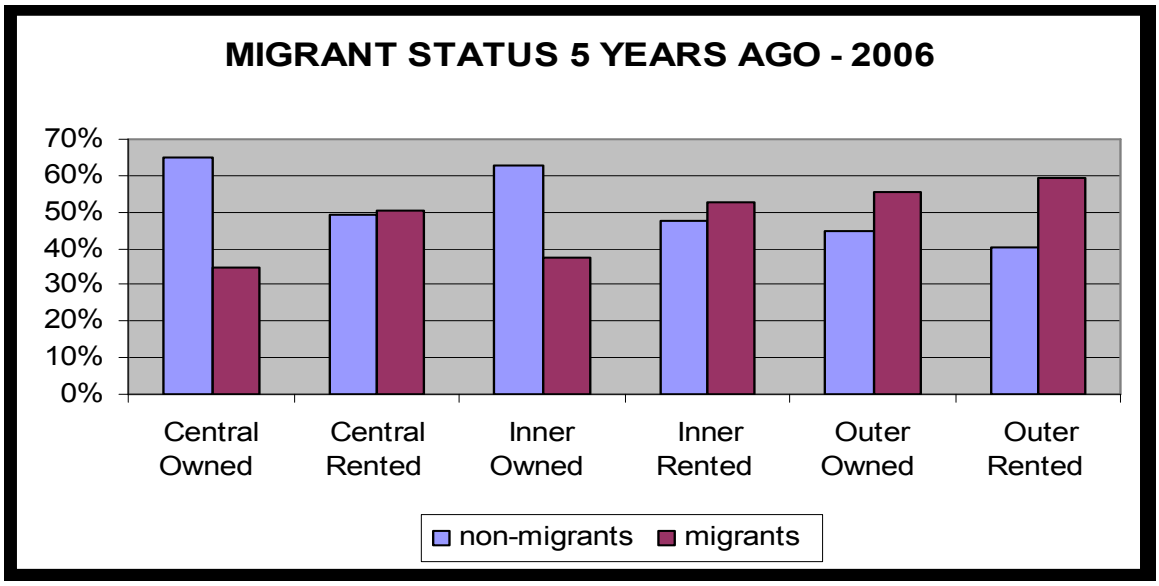


Table 4.19 – Migrant Status Data for Higher Density Districts – 1 and 5 Year – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Non-migrants 1 yr (2001)	69.2%	54.4%	69.0%	51.9%	51.5%	44.7%
Migrants 1yr (2001)	31.6%	45.8%	31.2%	48.1%	48.3%	55.4%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-migrants 5 yr (2001)	63.9%	45.5%	60.5%	43.6%	46.2%	37.8%
Migrants 5 yr (2001)	36.2%	54.5%	39.5%	56.4%	53.9%	62.1%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-migrants 1 yr (2006)	71.7%	64.7%	71.0%	64.4%	49.7%	53.5%
Migrants 1yr (2006)	26.8%	35.2%	28.9%	35.5%	50.2%	46.9%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-migrants 5 yr (2006)	65.0%	49.5%	62.4%	47.5%	44.9%	40.3%
Migrants 5 yr (2006)	34.7%	50.4%	37.6%	52.4%	55.2%	59.5%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

In both 2001 and 2006, the mobility of households in both the 1 year and 5 year periods prior to the census is substantially greater among the higher density dissemination areas of all urban zone and tenure pairings than of the general population of their respective urban zones. This is also true of the general population of the GTA. Furthermore, in 2006, among the general population of the three urban zones, only in the outer suburbs does the proportion of migrants outweigh that of non-migrants, both for those who changed their place of residence within 1 year and 5 years prior to the census. Among the general population of the inner suburbs and the central city, the proportion of non-migrants is substantially higher than that of migrants. These trends among the general population of the three urban zones are relatively consistent with the trends among the population of higher density dissemination areas. It should be noted that the higher proportions of migrants in the outer suburbs may be the result of greater municipal fragmentation in that urban zone.

Figure 4.29 – Household Mobility in Comparable Groups – 1 Year – 2006

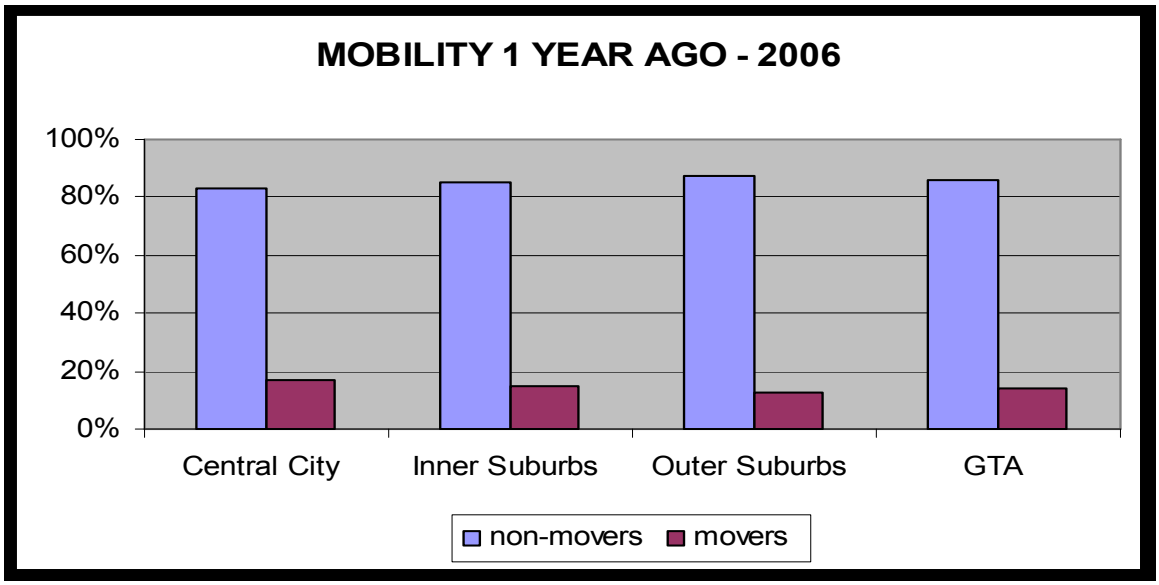


Figure 4.30 – Household Mobility in Comparable Groups – 5 Year – 2006

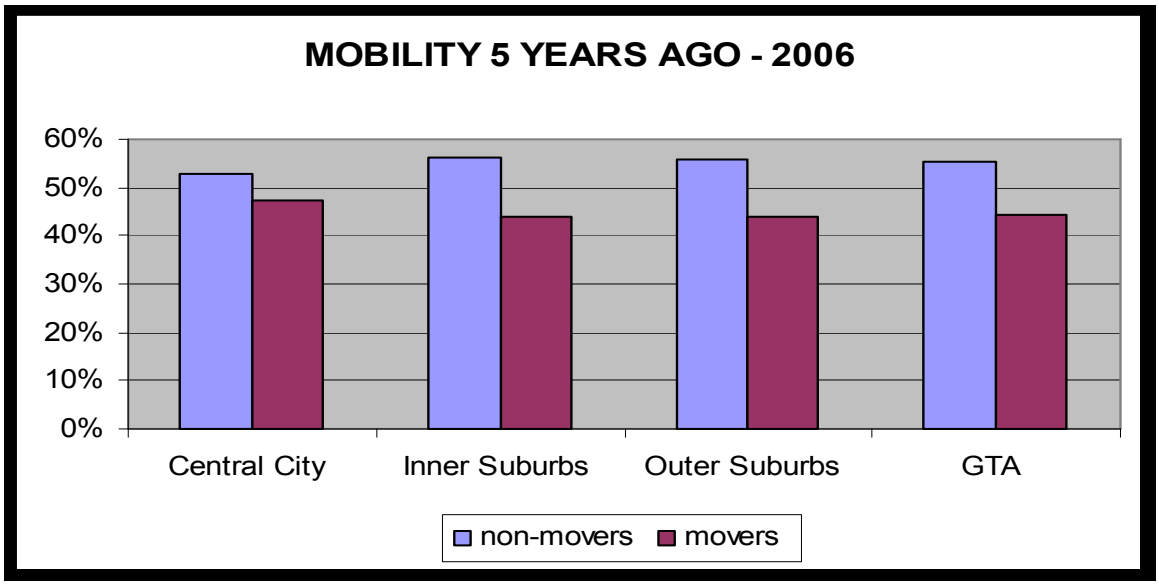


Figure 4.31 – Migrant Status in Comparable Groups – 1 Year – 2006

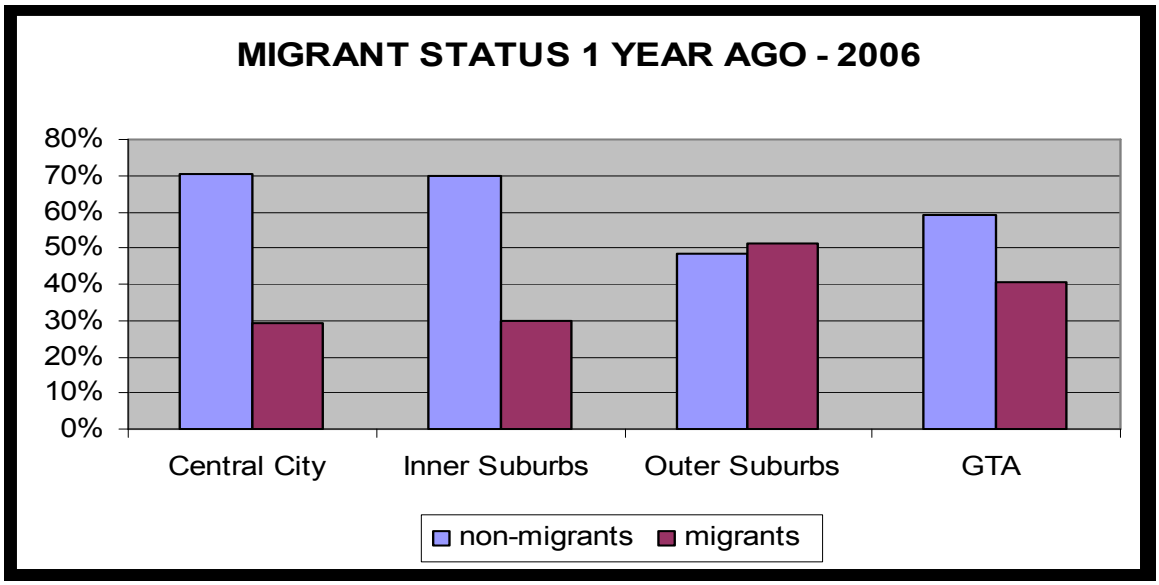


Figure 4.32 – Migrant Status in Comparable Groups – 5 Year – 2006

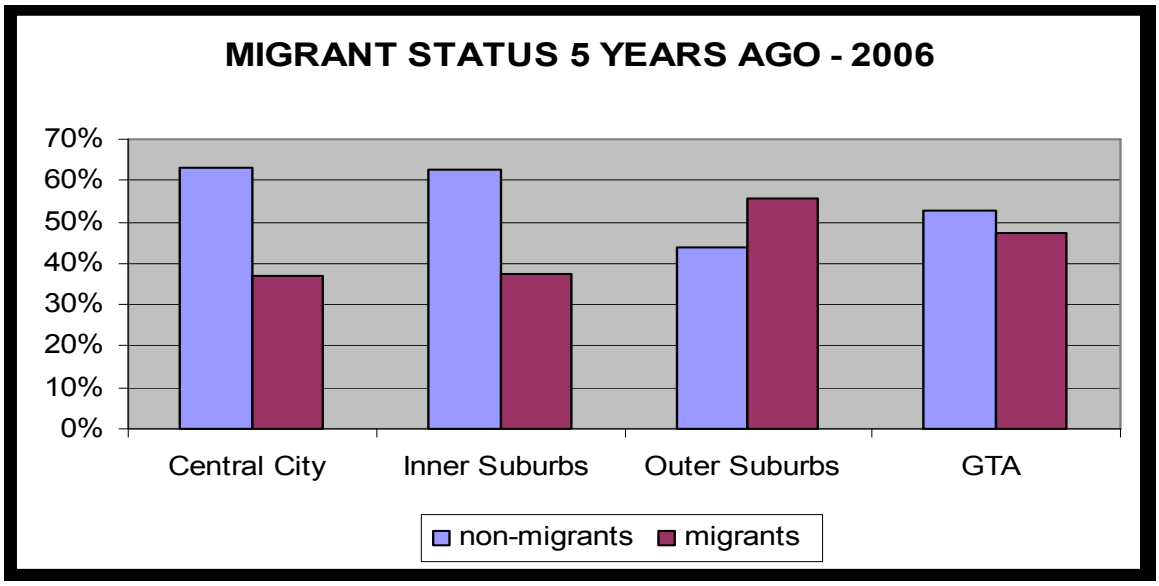


Table 4.20 – Household Mobility and Migrant Status Data for Comparable Groups – 1 and 5 Year – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Non-movers 1yr (2001)	83.9%	86.4%	86.5%	86.0%
Movers 1 yr (2001)	16.1%	13.6%	13.5%	14.0%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Non-movers 5 yr (2001)	51.7%	56.3%	54.9%	54.7%
Movers 5 yr (2001)	48.3%	43.7%	45.1%	45.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-migrants 1 yr (2001)	65.5%	63.3%	47.8%	56.1%
Migrants 1yr (2001)	34.6%	36.7%	52.2%	43.9%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-migrants 5 yr (2001)	60.5%	60.2%	45.3%	52.6%
Migrants 5 yr (2001)	39.5%	39.8%	54.7%	47.4%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-movers 1yr (2006)	82.8%	85.5%	87.4%	86.1%
Movers 1 yr (2006)	17.2%	14.4%	12.6%	13.9%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-movers 5 yr (2006)	52.6%	56.2%	55.9%	55.4%
Movers 5 yr (2006)	47.3%	43.8%	44.1%	44.5%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-migrants 1 yr (2006)	70.7%	70.1%	48.2%	59.3%
Migrants 1yr (2006)	29.1%	29.6%	51.5%	40.5%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-migrants 5 yr (2006)	62.9%	62.4%	44.1%	52.5%
Migrants 5 yr (2006)	37.0%	37.4%	55.8%	47.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.2.8 Immigrant Status

In 2006, as in 2001, both owned and rented dissemination areas in the inner suburbs maintain the highest proportions of immigrants among urban zone and tenure pairings. Most notable are the changes in immigrant composition among both owned and rented dissemination areas in the outer suburbs and among owned ones in the central city, between 2001 and 2006. The proportion of immigrants has increased dramatically in both owned and rented dissemination areas in the outer suburbs. Furthermore, the proportion of non-immigrants residing in owned dissemination areas in the central city has increased approximately 10 percent to 51.4 percent. The proportions of immigrants and non-immigrants in rented dissemination areas in the central city have remained consistent between the two census years. Lastly, the proportion of non-permanent residents in all urban zone and tenure pairings is low,

although it is notably higher among rented dissemination areas in the central city and inner suburbs, sitting at approximately 4 percent in 2006.

Figure 4.33 – Immigrant Status in Higher Density Districts - 2006

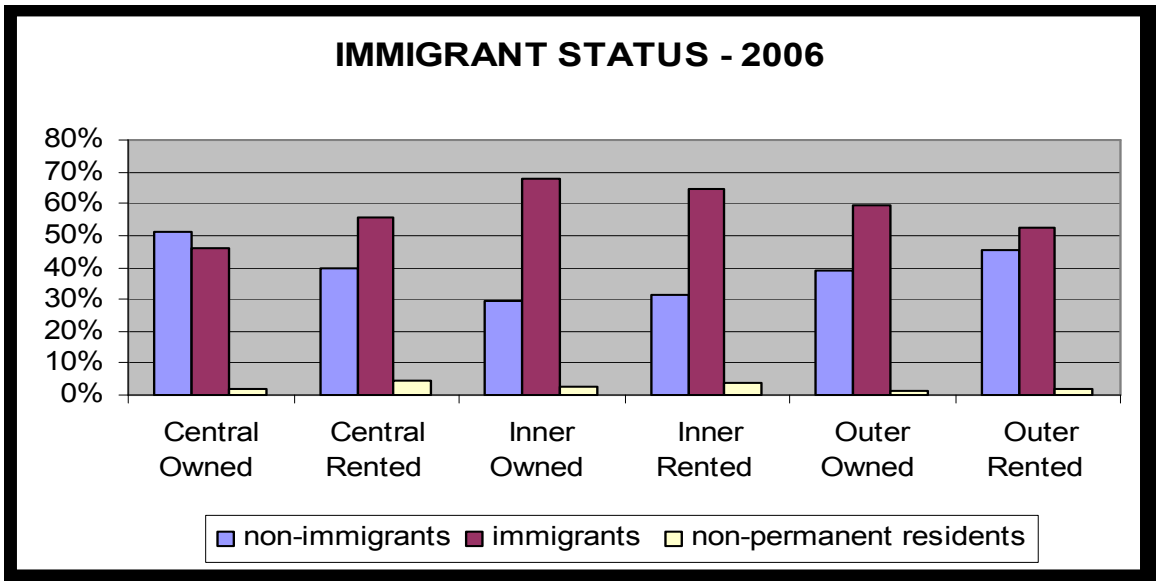


Table 4.21 – Immigrant Status Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Non-immigrants (2001)	42.5%	41.0%	33.4%	32.9%	47.8%	49.7%
Immigrants (2001)	56.0%	55.7%	64.7%	64.1%	51.0%	48.6%
Non-permanent residents (2001)	1.2%	3.4%	1.9%	3.0%	1.4%	1.5%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Non-immigrants (2006)	51.4%	40.0%	29.2%	31.3%	38.9%	45.4%
Immigrants (2006)	46.4%	55.5%	68.1%	64.9%	59.6%	52.5%
Non-permanent residents (2006)	2.1%	4.5%	2.6%	3.7%	1.4%	1.9%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Rented dissemination areas in all three urban zones maintain higher proportions of recent immigrants than their owned counterparts, increasing marginally from 2001 to 2006. A recent immigrant is one who has immigrated to Canada within the 5 year period prior to the census. In 2006, recent immigrants maintain the highest proportion among rented dissemination areas in the outer

suburbs, sitting at 45 percent of the total immigrant population in that urban zone and tenure pairing. The lowest proportion of recent immigrants resides in owned dissemination areas in the central city. They composed 15.4 percent of its total immigrant population in 2006, representing a decline of 1.6 percent since 2001.

Figure 4.34 – Recent Immigrant Status in Higher Density Districts – 2006

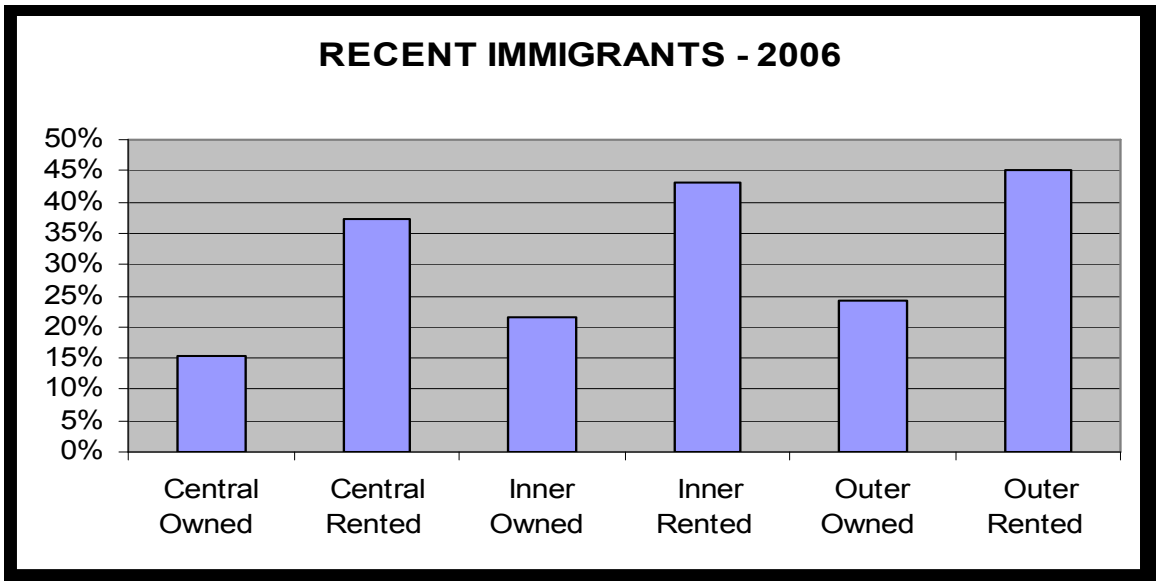


Table 4.22 – Recent Immigrant Status Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Recent immigrants (2001)	17.1%	38.7%	23.3%	42.4%	22.7%	42.5%
Recent immigrants (2006)	15.4%	37.1%	21.7%	43.1%	24.2%	45.0%

Among the general population of the three urban zones, the highest proportion of immigrants resided in the inner suburbs in 2006, sitting at 55.4 percent, an increase of almost 2 percent since 2001. The proportion of immigrants in the outer suburbs has increased by 4 percent between the two

census years, reaching 38.3 percent in 2006. In addition, the proportion of immigrants in the central city has declined by over 2 percent between 2001 and 2006, sitting at 40.8 percent. These trends among the general population of the three urban zones are similar to the trends of the population of the higher density dissemination areas. In 2006, the proportion of immigrants among the general population of the GTA stood at 43.5 percent, increasing by slightly less than 2 percent since 2001. Furthermore, among the general population of the three urban zones, the inner suburbs maintain the highest proportion of recent immigrants, comprising 22.4 percent of the total immigrant population in 2006. This result differs from the higher density dissemination areas, where rented ones in all three urban zones maintain higher proportions of recent immigrants than their owned counterparts. The greatest decrease of recent immigrants occurred in the central city, falling by 2 percent between 2001 and 2006, while the other two urban zones experienced more modest decreases. This also differs from the population of the higher density districts, where only owned and rented dissemination areas in the central city and owned ones in the inner suburbs experienced decreases in the proportions of recent immigrants, with the other three urban zone and tenure pairings experiencing increases. Finally, among the general population of the GTA, the proportion of recent immigrants was 18.9 percent of the total immigrant population in 2006, falling 1.1 percent since 2001.

Figure 4.35 – Immigrant Status in Comparable Groups – 2006

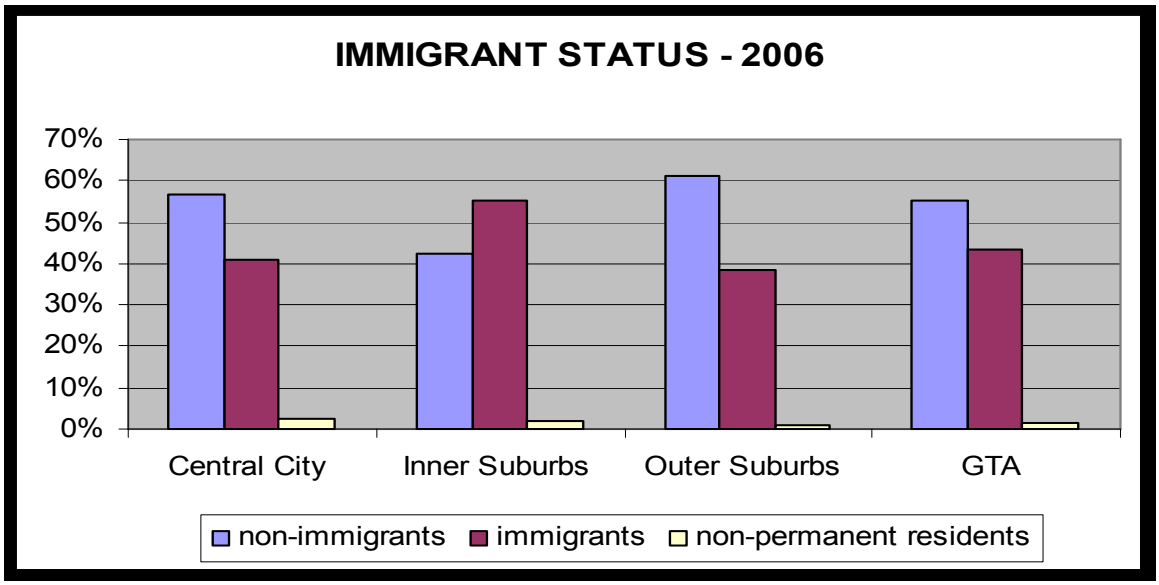


Figure 4.36 – Recent Immigrant Status in Comparable Groups - 2006

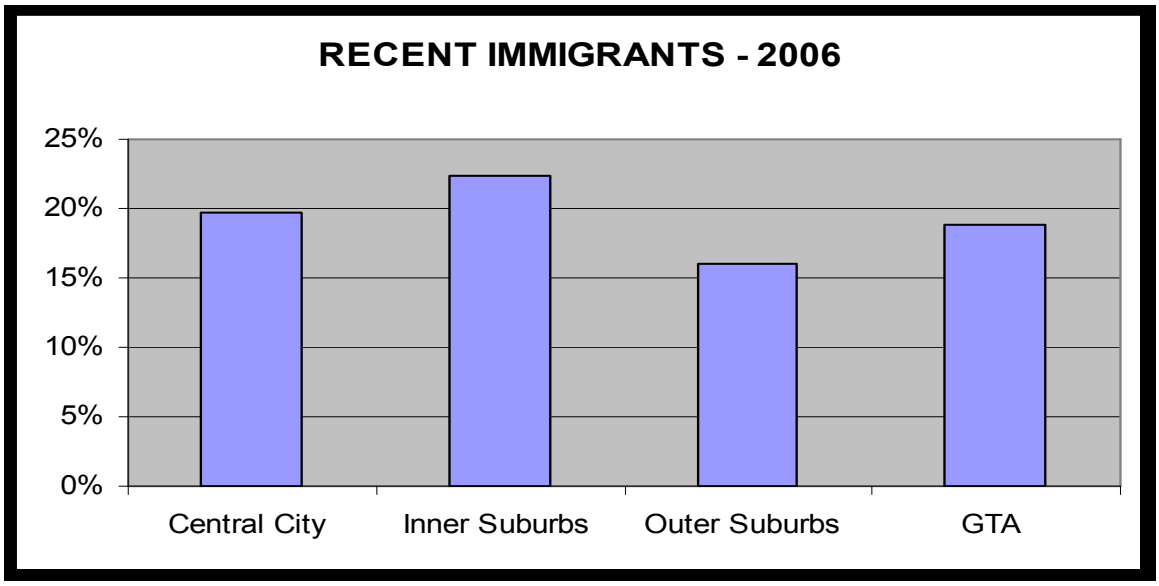


Table 4.23 – Immigrant and Recent Immigrant Status Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Non-immigrants (2001)	54.9%	45.0%	65.1%	57.1%
Immigrants (2001)	43.0%	53.5%	34.3%	41.7%
Non-permanent residents (2001)	2.1%	1.6%	0.6%	1.2%

Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Recent immigrants (2001)	21.7%	23.8%	15.8%	20.0%
Non-immigrants (2006)	56.7%	42.6%	60.9%	55.0%
Immigrants (2006)	40.8%	55.4%	38.3%	43.5%
Non-permanent residents (2006)	2.4%	1.9%	0.7%	1.4%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Recent immigrants (2006)	19.7%	22.4%	16.0%	18.9%

4.2.9 Visible Minority Status

In both 2001 and 2006, owned and rented dissemination areas in the inner suburbs maintained the highest proportions of visible minorities of all urban zone and tenure pairings, however, there has been a shift in distribution within the inner suburbs. In 2001, rented dissemination areas in this urban zone maintained the highest proportion of visible minorities at 64.8 percent, followed by owned dissemination areas at 59.6 percent. By 2006, the proportion of visible minorities was the highest in owned dissemination areas in the inner suburbs, rising sharply to 70 percent, while the proportion of visible minorities in rented dissemination areas also rose, albeit by a lesser margin, to 69.3 percent. Furthermore, changes in visible minority composition between the two census years have been rather modest in the central city. Among owned dissemination areas in the central city, the proportion of visible minorities has declined 2 percent to 35.5 percent of the total population in that urban zone and tenure pairing. This pairing represented the lowest proportion of visible minorities among all the urban zone and tenure pairings in 2006. Lastly, both owned and rented dissemination areas in the outer suburbs maintained the next lowest proportion of visible minorities, after owned dissemination areas in the central

city, although their numbers have increased sharply. The proportion of visible minorities in owned dissemination areas in the outer suburbs rose almost 11 percent to 47 percent, while the proportion of visible minorities in rented dissemination areas rose 7.9 percent to 49.9 percent in 2006.

Figure 4.37 – Visible Minority Status in Higher Density Districts – 2006

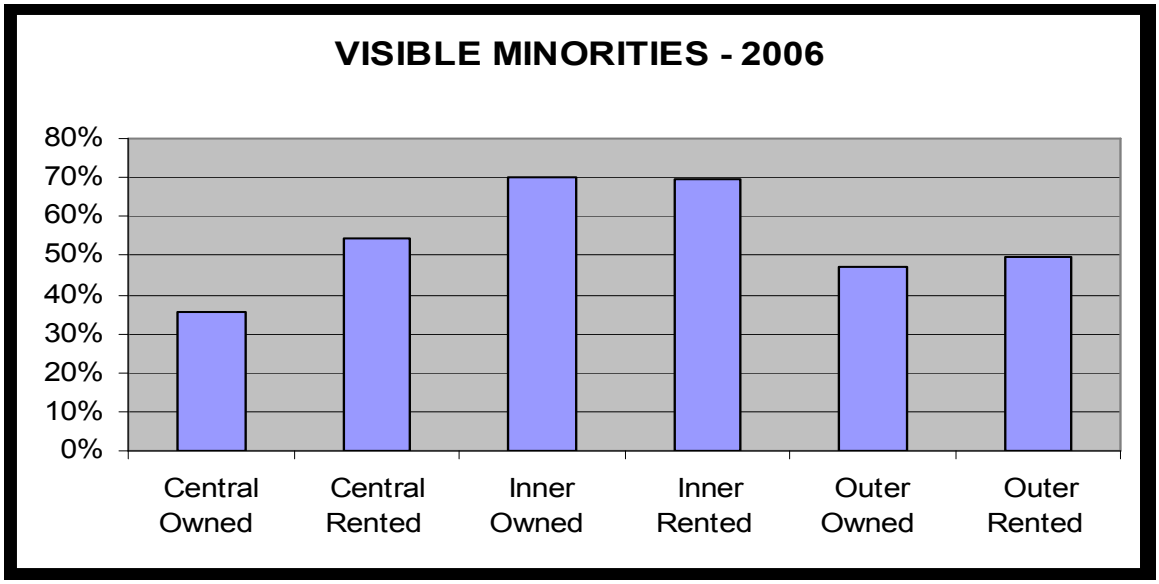


Table 4.24 – Visible Minority Status Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Visible minority population (2001)	37.5%	53.2%	59.6%	64.8%	36.1%	41.9%
Visible minority population (2006)	35.5%	54.6%	70.0%	69.3%	47.0%	49.9%

Among the general population of the central city, the proportion of visible minorities has increased only very slightly to 32.9 percent between 2001 and 2006. In the inner suburbs, the proportion of visible minorities has increased significantly by 5.8 percent to 55.1 percent. The greatest increase in visible minorities between the two census years took place in the outer suburbs where

its proportion increased over 8 percent to 34.8 percent. These trends among the general populations of the three urban zones are generally consistent with the trends among the populations of the higher density districts. Among the general population of the GTA, the proportion of visible minorities increased by a substantial 5.7 percent between 2001 and 2006, reaching 40.2 percent.

Figure 4.38 – Visible Minority Status in Comparable Groups – 2006

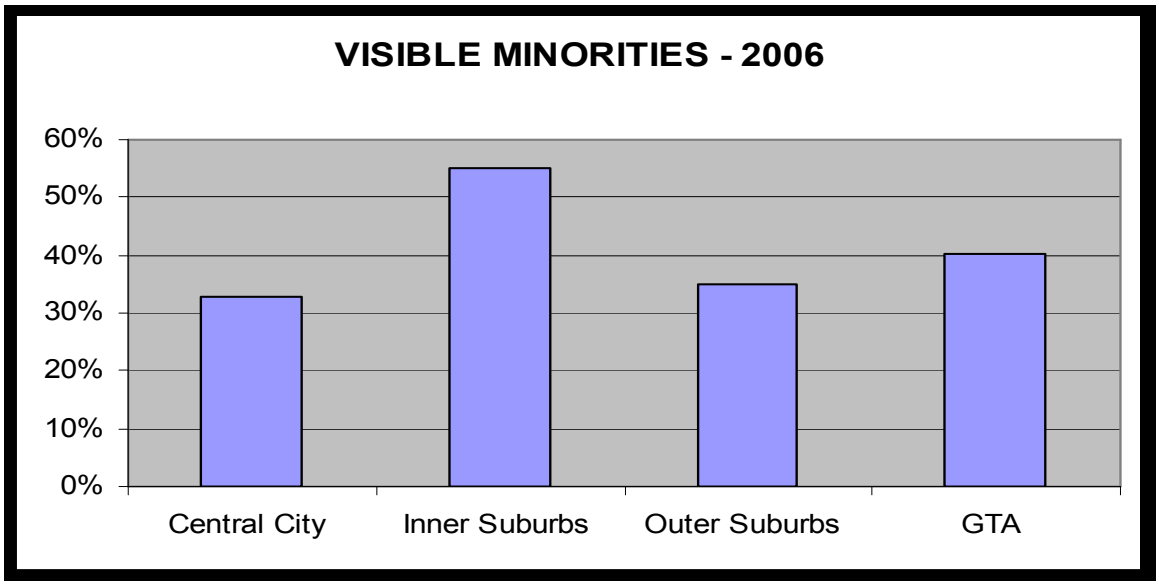


Table 4.25 – Visible Minority Status Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Visible minority population (2001)	32.2%	49.3%	26.7%	34.5%
Visible minority population (2006)	32.9%	55.1%	34.8%	40.2%

4.2.10 Employment Statistics

From 2001 to 2006, the average unemployment rate for those 15 years of age and older has decreased among both owned and rented dissemination areas in the central city, while it has increased for dissemination areas of both tenures in the inner and outer suburbs. The average unemployment rate in owned

dissemination areas in the central city was the lowest among all urban zone and tenure pairings, decreasing by 0.2 percent between 2001 and 2006 to 5 percent. In addition, rented dissemination areas in the central city experienced a decrease of 0.6 percent between 2001 and 2006 to 9.4 percent. The inner suburbs experienced moderate increases in the average unemployment rate among both owned and rented dissemination areas, although in 2006, the rented dissemination areas displayed the highest average unemployment rate of all urban zone and tenure pairings at 11.9 percent. Furthermore, owned and rented dissemination areas in the outer suburbs experienced the greatest increases in the average unemployment rate of 1.5 and 1 percent respectively. In 2006, the average unemployment rate among owned dissemination areas in the outer suburbs was 7 percent and 9.4 percent for their rented counterparts.

Figure 4.39 – Employment Statistics in Higher Density Districts – 2006

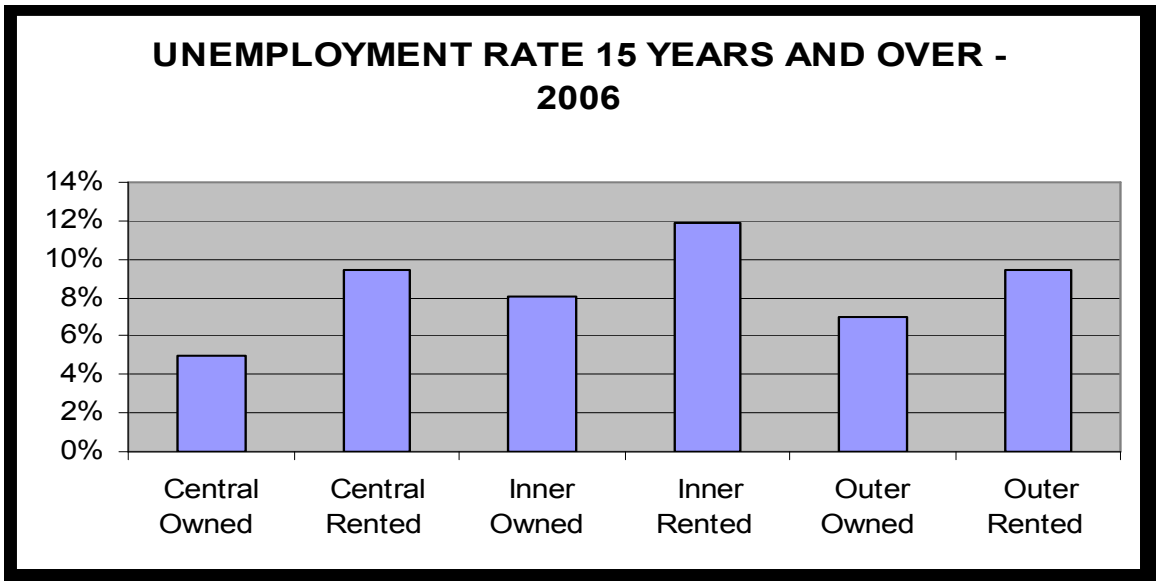


Table 4.26 – Employment Statistics Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Unemployment rate 15 and over (2001)	5.2%	10.0%	7.5%	11.5%	5.5%	8.4%
Unemployment rate 15 and over (2006)	5.0%	9.4%	8.1%	11.9%	7.0%	9.4%

The average unemployment rate increased among the general population of all three urban zones between 2001 and 2006. The lowest increase in the average unemployment rate was found in the central city, increasing 0.2 percent. The inner and outer suburbs experienced an increase in average unemployment rates of 0.7 and 0.9 percent respectively. In 2006, the highest average unemployment rate can be found in the inner suburbs at 8 percent, followed by the central city at 7 percent, while the outer suburbs maintain the lowest average unemployment rate, sitting at 5.8 percent. With the exception of owned dissemination areas in the central city, all other higher density urban zone and tenure pairings maintain higher unemployment rates than the general populations of their respective urban zones. The average unemployment rate of the general population of the GTA sits at 6.7 percent in 2006, increasing from 6 percent in 2001. This is lower than all the higher density urban zone and tenure pairings, with the exception of owned dissemination areas in the central city.

Figure 4.40 – Employment Statistics in Comparable Groups – 2006

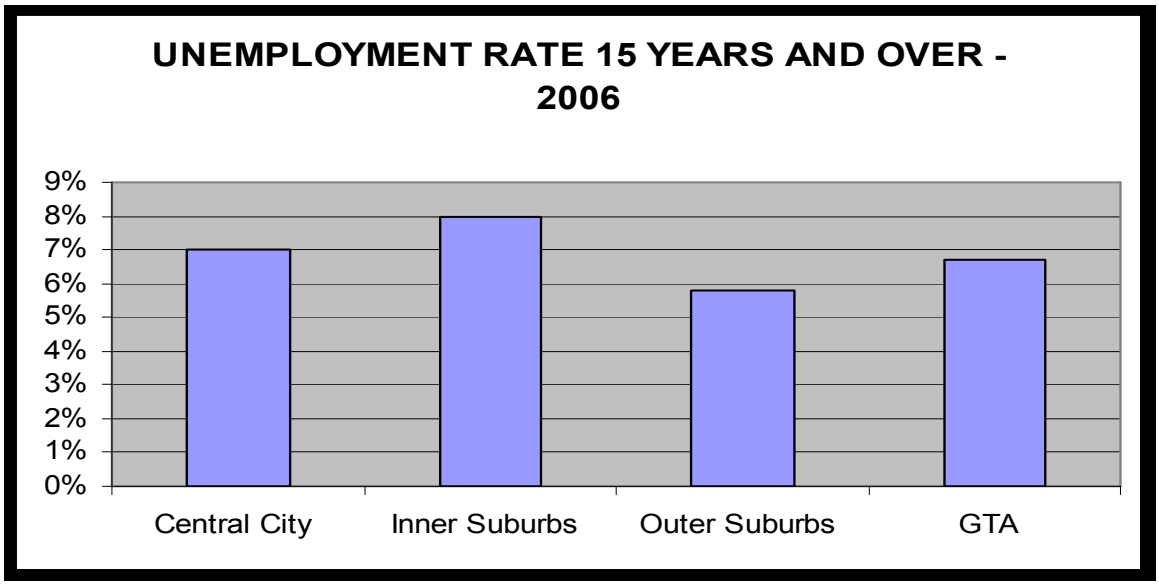


Table 4.27 – Employment Statistics Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Unemployment rate 15 and over (2001)	6.8%	7.3%	4.9%	6.0%
Unemployment rate 15 and over (2006)	7.0%	8.0%	5.8%	6.7%

4.2.11 Type of Worker and Occupation

Owned dissemination areas in the central city, inner suburbs and outer suburbs all had higher proportions of self employed workers in 2006, ranging between 12 and 14.4 percent, than their rented counterparts. Rented dissemination areas in all three urban zones maintain higher proportions of workers that are employed by someone other than themselves, ranging from 91.2 to 93.8 percent. The distribution of these proportions has remained relatively constant between 2001 and 2006. Unpaid family workers compose a very small fraction of workers in all urban zone and tenure pairings, ranging from one tenth to four tenths of 1 percent. Among the general population of the three

urban zones, the central city maintains the highest proportion, 14 percent in 2006, of self employed workers, an increase of almost 1 percent since 2001. The inner and outer suburbs maintain proportions of self employed workers hovering at approximately 11 percent, while unpaid family workers represent only about two to three tenths of one percent of all workers in all three urban zones. Among the general population of the GTA, the proportion of self employed workers amounted to 11.6 percent in 2006. All urban zone and tenure pairings, with the exception of owned dissemination areas in the outer suburbs, maintain lower proportions of self employed workers than the general populations of their respective urban zones. Only owned dissemination areas in the central city and outer suburbs maintained higher proportions of self employed workers than the general population of the GTA.

Figure 4.41 – Type of Workers in Higher Density Districts – 2006

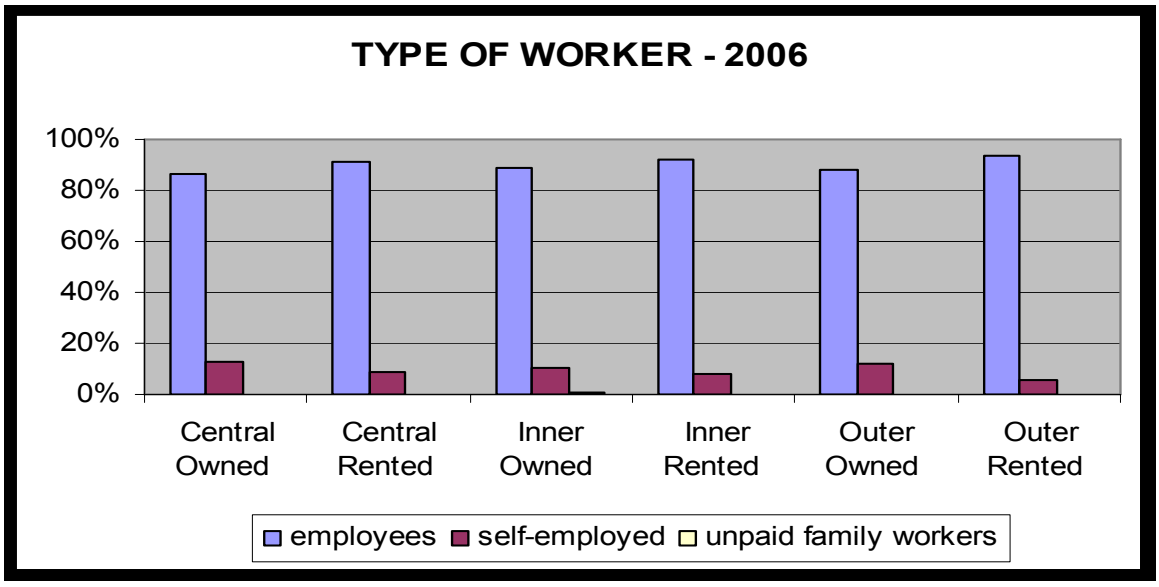


Table 4.28 – Type of Workers Data for Higher Density Districts – 2001 & 2006

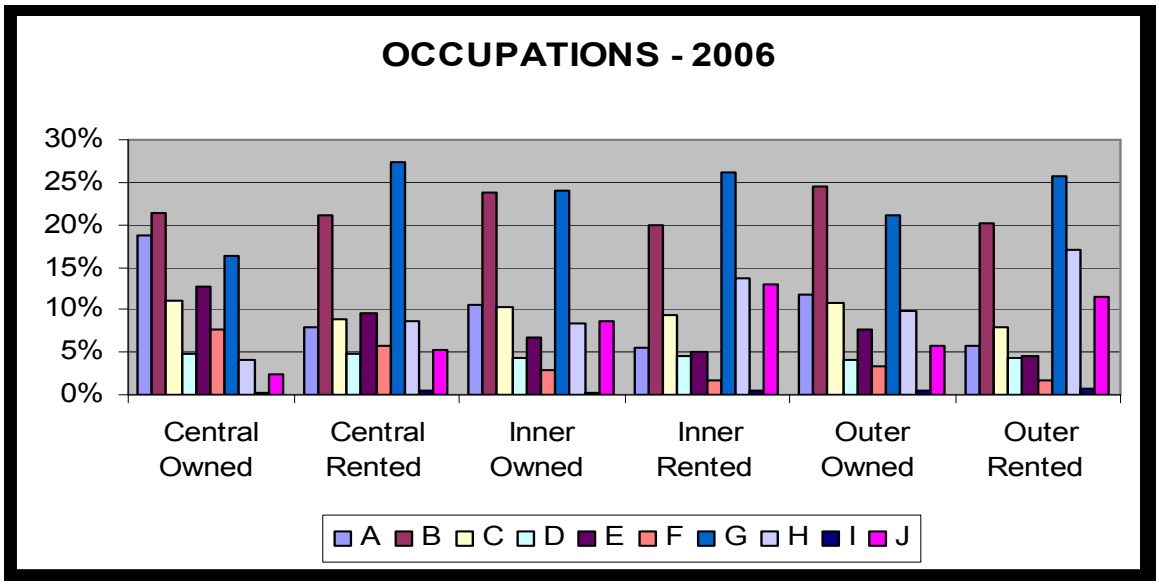
	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Employees (2001)	85.7%	91.4%	87.9%	92.8%	87.3%	94.1%
Self-employed (2001)	14.4%	8.6%	12.0%	6.9%	12.3%	5.7%
Unpaid family workers (2001)	0.1%	0.1%	0.2%	0.2%	0.4%	0.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Employees (2006)	86.7%	91.2%	88.7%	92.2%	87.8%	93.8%
Self-employed (2006)	13.2%	8.7%	10.7%	7.6%	12.1%	5.8%
Unpaid family workers (2006)	0.2%	0.1%	0.4%	0.1%	0.1%	0.1%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

In 2006, the proportion of the workforce employed in management occupations was highest among owned dissemination areas in the central city, sitting at 18.8 percent, followed by owned dissemination areas in the inner and outer suburbs, maintaining 10.6 and 11.8 percent of their workforces in management occupations, respectively. Owned dissemination areas in all urban zones maintained higher proportions of their workforce in management occupations than their rented counterparts. Furthermore, owned dissemination areas in all three urban zones maintain higher proportions of their workforce in business, finance and administrative occupations, as well as occupations related to natural and applied sciences than rented dissemination areas in the three urban zones. Rented dissemination areas in all three urban zones maintain higher proportions of their workforce in sales and service occupations than their owned counterparts. In addition, rented dissemination areas in both the inner and outer suburbs maintain significantly higher proportions of their workforce in trades and transport related occupations, and in occupations related to processing and manufacturing, than the other urban zone and tenure pairings.

The remaining occupational categories do not demonstrate such clear relationships and patterns with urban zone or tenure categories.

Some notable changes between the 2001 and 2006 censuses includes an increase in the proportion of those employed in management occupations in owned dissemination areas in the central city, while all other urban zone and tenure pairings experienced a decrease in the proportion of those employed in this occupational category. Furthermore, owned dissemination areas in the central city were the only urban zone and tenure pairing that experienced a significant decrease, 4.1 percent, in the proportion of its workforce employed in sales and service occupations. All other urban zone and tenure pairings experienced at least a marginal increase in the proportion of their workforces employed in sales and service occupations between 2001 and 2006.

Figure 4.42 – Occupations in Higher Density Districts – 2006



A – management
B – business, finance and administration
C – natural and applied sciences
D – health
E – social sciences, education, government
F – art, culture, recreation and sport
G – sales and service
H – trades, transport and equipment operators
I – primary industry
J – processing, manufacturing and utilities

Table 4.29 – Occupations Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
A management (2001)	17.0%	9.4%	12.6%	6.6%	14.6%	7.7%
B business, finance and administration (2001)	22.5%	21.5%	24.9%	19.8%	25.4%	20.7%
C natural and applied sciences (2001)	9.4%	11.3%	10.2%	10.2%	7.9%	8.3%
D health (2001)	6.5%	4.5%	4.7%	4.1%	3.6%	3.5%
E social sciences, education, government, religion(2001)	10.0%	8.3%	6.3%	4.5%	6.2%	4.3%
F art, culture, recreation and sport (2001)	4.9%	5.6%	2.5%	2.2%	1.5%	1.6%
G sales and service (2001)	20.4%	25.1%	21.1%	24.7%	20.7%	24.6%
H trades, transport and equipment operators (2001)	6.3%	7.9%	8.5%	12.8%	10.6%	16.5%
I primary industry (2001)	0.2%	0.2%	0.2%	0.5%	0.6%	0.6%
J processing, manufacturing and utilities (2001)	3.8%	6.6%	9.4%	14.8%	8.7%	12.5%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
A management (2006)	18.8%	7.8%	10.6%	5.4%	11.8%	5.9%
B business, finance and administration (2006)	21.5%	21.1%	23.7%	19.9%	24.6%	20.3%
C natural and applied sciences (2006)	11.0%	8.8%	10.3%	9.4%	10.8%	7.9%
D health (2006)	4.7%	4.9%	4.4%	4.5%	4.1%	4.3%
E social sciences, education, government, religion(2006)	12.7%	9.7%	6.7%	5.1%	7.7%	4.5%
F art, culture, recreation and sport (2006)	7.7%	5.6%	2.9%	1.7%	3.4%	1.7%
G sales and service (2006)	16.3%	27.4%	23.9%	26.2%	21.0%	25.7%
H trades, transport and equipment operators (2006)	4.1%	8.7%	8.3%	13.6%	9.8%	17.0%
I primary industry (2006)	0.2%	0.4%	0.1%	0.6%	0.4%	0.6%
J processing, manufacturing and utilities (2006)	2.3%	5.2%	8.7%	12.9%	5.8%	11.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Among the general populations of the central city, inner suburbs and outer suburbs in 2006, there are some key differences between the most prominent types of occupations. The proportion of those employed in management occupations is highest among those residing in the central city and the outer suburbs. The inner and outer suburbs maintain a higher proportion of those whose occupation relates to business, finance or administration, than the central city. Furthermore, the central city maintains higher proportions of those working in occupations related to social science, education or government and occupations related to art, culture and recreation, than the inner or outer suburbs. Lastly, the proportion of those employed in trade and transport

occupations increases with distance from the central city, while the proportion of those employed in processing and manufacturing occupations is highest in the inner suburbs. The relationship between resident occupations of the higher density urban zone and tenure pairings and the general populations of their respective urban zones is mixed and depends on the particular variable under consideration.

Figure 4.43 – Type of Workers in Comparable Groups – 2006

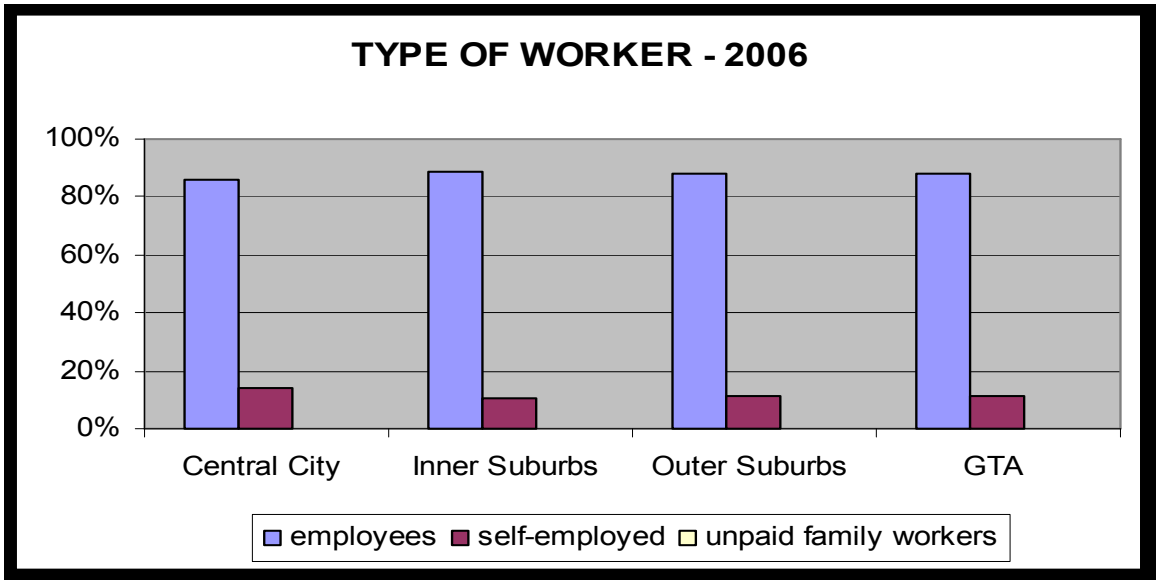
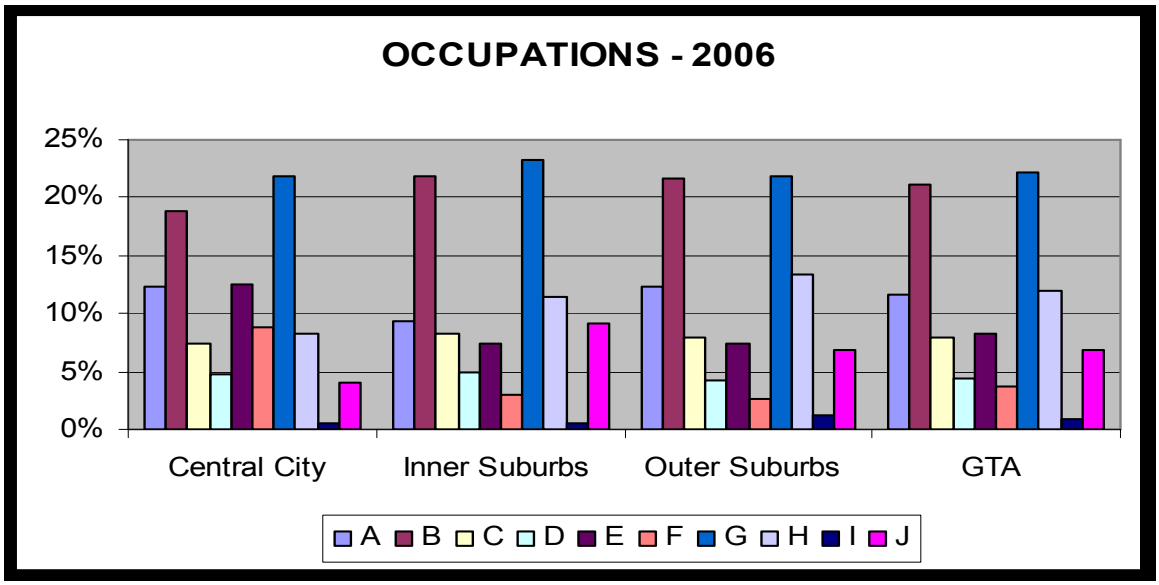


Figure 4.44 – Occupations in Comparable Groups – 2006



A – management
B – business, finance and administration
C – natural and applied sciences
D – health
E – social sciences, education, government
F – art, culture, recreation and sport
G – sales and service
H – trades, transport and equipment operators
I – primary industry
J – processing, manufacturing and utilities

Table 4.30 – Type of Workers and Occupations Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Employees (2001)	86.6%	89.1%	88.3%	88.2%
Self-employed (2001)	13.2%	10.5%	11.4%	11.5%
Unpaid family workers (2001)	0.2%	0.3%	0.3%	0.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
A management (2001)	13.2%	10.8%	14.0%	13.0%
B business, finance and administration (2001)	19.4%	22.6%	21.6%	21.5%
C natural and applied sciences (2001)	8.3%	8.8%	7.7%	8.1%
D health (2001)	4.4%	4.4%	4.0%	4.2%
E social sciences, education, government, religion (2001)	10.8%	6.6%	6.8%	7.5%
F art, culture, recreation and sport (2001)	7.9%	2.9%	2.4%	3.6%
G sales and service (2001)	21.4%	21.8%	21.4%	21.5%
H trades, transport and equipment operators (2001)	8.6%	11.4%	13.3%	11.9%
I primary industry (2001)	0.5%	0.5%	1.3%	0.9%
J processing, manufacturing and utilities (2001)	5.6%	10.2%	7.5%	7.9%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Employees (2006)	85.7%	88.9%	88.3%	88.0%
Self-employed (2006)	14.0%	10.7%	11.3%	11.6%
Unpaid family workers (2006)	0.2%	0.2%	0.3%	0.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

A management (2006)	12.4%	9.3%	12.3%	11.6%
B business, finance and administration (2006)	18.8%	21.9%	21.6%	21.2%
C natural and applied sciences (2006)	7.5%	8.4%	7.9%	7.9%
D health (2006)	4.7%	4.9%	4.2%	4.5%
E social sciences, education, government, religion (2006)	12.5%	7.4%	7.3%	8.2%
F art, culture, recreation and sport (2006)	8.7%	2.9%	2.6%	3.7%
G sales and service (2006)	21.9%	23.3%	21.9%	22.2%
H trades, transport and equipment operators (2006)	8.2%	11.5%	13.4%	12.0%
I primary industry (2006)	0.6%	0.5%	1.3%	1.0%
J processing, manufacturing and utilities (2006)	4.0%	9.1%	6.8%	6.9%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.2.12 Place of Work and Mode of Transportation

In 2006, both owned and rented dissemination areas in the central city maintained the highest proportions of those in the workforce who work in their census sub-division (CSD) of residence, followed by owned and rented dissemination areas in the inner suburbs. See Figure 4.26 for an illustration of CSD's in the GTA. These proportions, however, have declined anywhere from just marginally among owned dissemination areas in the central city, to 3 or 4 percent among the other urban zone and tenure pairings outlined above, since 2001. The highest proportions of those in the workforce working in a different CSD than their residence can be found in both owned and rented dissemination areas in the outer suburbs. This may be the result of greater municipal fragmentation in the outer suburbs than in the other urban zones. However, among rented dissemination areas in the outer suburbs, the proportion of the workforce working in their CSD of residence is greater than the proportion of those working in a different CSD than their residence. In 2006, the proportion of those in the workforce working from home is highest among owned

dissemination areas in the central city, followed by those in the inner and outer suburbs. The proportion of those in the workforce working outside of Canada is a fraction of 1 percent in all urban zone and tenure pairings except for owned dissemination areas in the inner and outer suburbs, where the proportion of those working outside of Canada was just over 1 percent in 2006. Finally, rented dissemination areas in all urban zones maintain higher proportions of those with no fixed workplace address, although these proportions have increased among all urban zone and tenure pairings from 2001 to 2006.

Figure 4.45 – Place of Work for Residents of Higher Density Districts – 2006

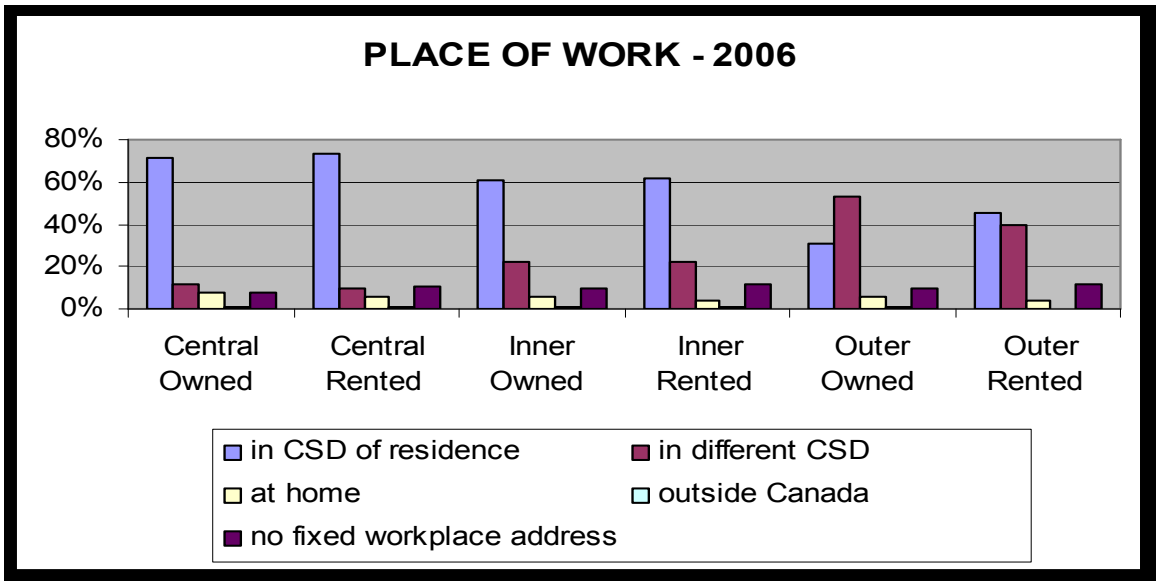


Table 4.31 – Place of Work Data for Residents of Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
In CSD of residence (2001)	71.9%	76.4%	65.4%	65.4%	34.4%	46.0%
In different CSD (2001)	13.2%	10.5%	20.9%	21.7%	52.5%	43.0%
At home (2001)	7.4%	4.6%	5.4%	3.2%	5.9%	2.9%
Outside Canada (2001)	0.7%	0.5%	1.0%	0.4%	0.9%	0.6%
No fixed workplace address (2001)	6.4%	8.1%	7.4%	9.2%	6.1%	7.7%

Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
In CSD of residence (2006)	71.5%	73.3%	61.1%	61.5%	30.5%	45.0%
In different CSD (2006)	12.0%	9.9%	22.6%	22.6%	52.7%	39.6%
At home (2006)	7.8%	5.5%	5.7%	3.8%	6.3%	3.5%
Outside Canada (2006)	0.6%	0.7%	1.2%	0.6%	1.0%	0.5%
No fixed workplace address (2006)	8.0%	10.3%	9.4%	11.3%	9.7%	11.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

The proportion of workers commuting to work in a car, truck or van as a driver is lowest in rented dissemination areas in the central city in 2006. Within each urban zone, the proportion of those using this method to commute to work is higher among the owned dissemination areas. Furthermore, the proportion of commuters driving to work increases with distance from the central city. Driving to work has decreased among all urban zone and tenure pairings from 2001 to 2006, with the exception of owned dissemination areas in the outer suburbs, which remained constant. The proportion of workers who use public transportation as a means of commuting is highest among rented dissemination areas in the central city. Within each urban zone, the proportion of workers using public transportation is higher among the rented dissemination areas. Between 2001 and 2006, the use of public transportation as a means of commuting increased or remained stagnant in all urban zone and tenure pairings except for owned dissemination areas in the central city, where it decreased approximately 2 percent to 36.1 percent. The proportion of workers who walked to work increased dramatically among owned dissemination areas in the central city from 10.3 percent in 2001 to 19.3 percent in 2006. The other urban zone and tenure pairings experienced marginal increases or decreases in the proportion of those

who walked to work. Cycling as a means of commuting experienced its greatest increase between the two census years among owned dissemination areas in the central city, almost tripling to 2.3 percent, while remaining relatively stable among the other urban zone and tenure pairings.

Figure 4.46 – Transportation to Work for Residents of Higher Density Districts - 2006

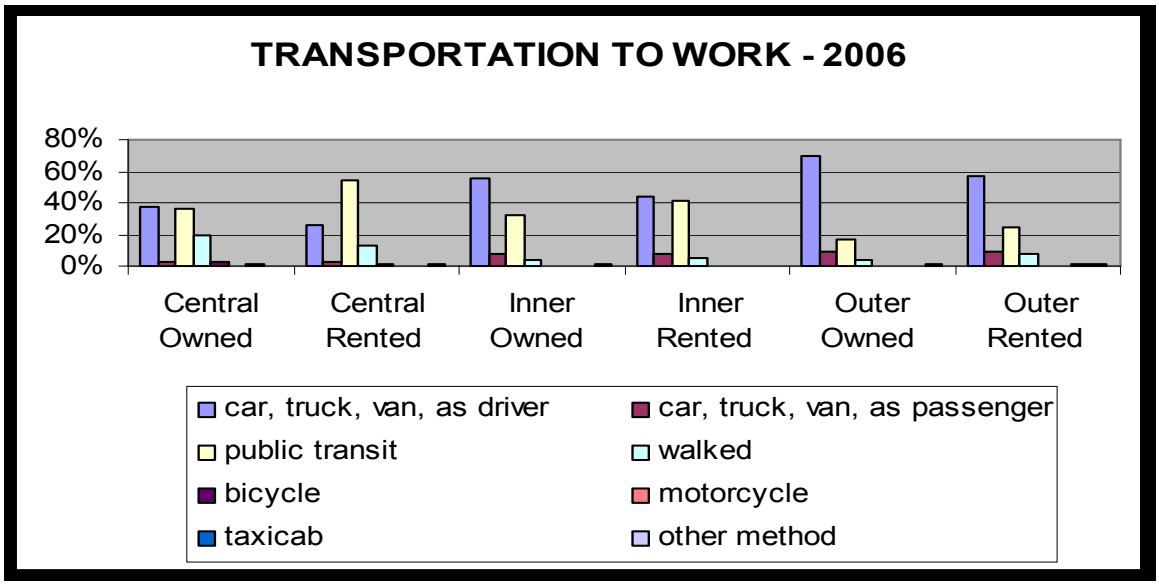


Table 4.32 – Transportation to Work Data for Residents of Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Car, truck, van, as driver (2001)	44.9%	28.3%	59.9%	47.4%	69.9%	63.9%
Car, truck, van, as passenger (2001)	3.3%	2.8%	5.5%	6.0%	6.9%	7.3%
Public transit (2001)	38.0%	52.1%	30.8%	40.5%	16.9%	21.7%
Walked (2001)	10.3%	14.1%	2.5%	5.1%	4.6%	5.5%
Bicycle (2001)	0.8%	1.5%	0.3%	0.3%	0.7%	0.4%
Motorcycle (2001)	0.1%	0.0%	0.1%	0.0%	0.0%	0.0%
Taxicab (2001)	0.3%	0.5%	0.2%	0.2%	0.2%	0.4%
Other method (2001)	1.2%	0.5%	0.6%	0.5%	0.9%	0.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Car, truck, van, as driver (2006)	37.7%	25.6%	55.1%	44.0%	70.0%	56.2%
Car, truck, van, as passenger (2006)	2.7%	3.0%	7.5%	7.1%	8.4%	9.4%
Public transit (2006)	36.1%	54.7%	31.9%	41.9%	16.9%	25.1%

Walked (2006)	19.3%	13.4%	3.8%	5.3%	3.5%	7.4%
Bicycle (2006)	2.3%	1.8%	0.4%	0.4%	0.3%	0.2%
Motorcycle (2006)	0.2%	0.1%	0.1%	0.0%	0.1%	0.1%
Taxicab (2006)	0.7%	0.4%	0.2%	0.3%	0.1%	0.7%
Other method (2006)	0.6%	0.8%	0.8%	0.6%	0.7%	0.7%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

Among the general population of the central city and inner suburbs in 2006, the proportion of those working in the CSD of their residence was approximately 73 and 70 percent, respectively. In the outer suburbs, approximately 50 percent worked in a different CSD than their residence. These trends are fairly consistent with the situation among the populations of the higher density districts. In 2006, the proportion of those driving to work was highest in the outer suburbs, totaling 78.9 percent, while the proportion of those using public transportation for commuting was highest in the central city, totaling 40.1 percent. Owned dissemination areas in all three urban zones maintained marginally lower proportions of those driving to work than the general populations of their respective urban zones, while their rented counterparts maintained significantly lower proportions. With the exception of owned dissemination areas in the outer suburbs, all other urban zone and tenure pairings maintained lower proportions of commuting to work as a driver than the general population of the GTA. Furthermore, owned dissemination areas in the central city was the only urban zone and tenure pairing that maintained a lower use of public transit than the general population of their respective urban zone. Again with the exception of owned dissemination areas in the outer suburbs, all other urban zone and tenure pairings maintained higher proportions of public

transit use than the general population of the GTA. The proportion of those walking to work was highest in the central city, totaling 12.1 percent in 2006. Among the general population of the GTA, the proportion of those driving to work was the highest at approximately 65 percent in 2006, while the use of public transportation was a distant second at 21 percent. Lastly, among the general population of the GTA, 46 percent of the workforce worked in the CSD of their residence, a proportion lower than all the urban zone and tenure pairings, with the exception of owned and rented dissemination areas in the outer suburbs.

Figure 4.47 – Place of Work for Residents of Comparable Groups – 2006

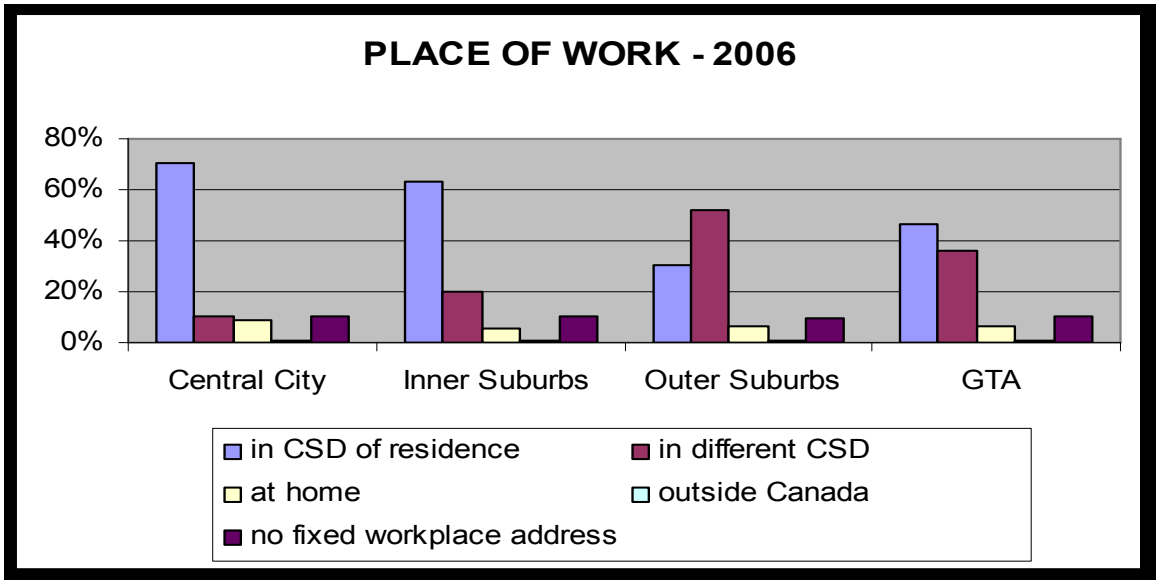


Figure 4.48 – Transportation to Work for Residents of Comparable Groups – 2006

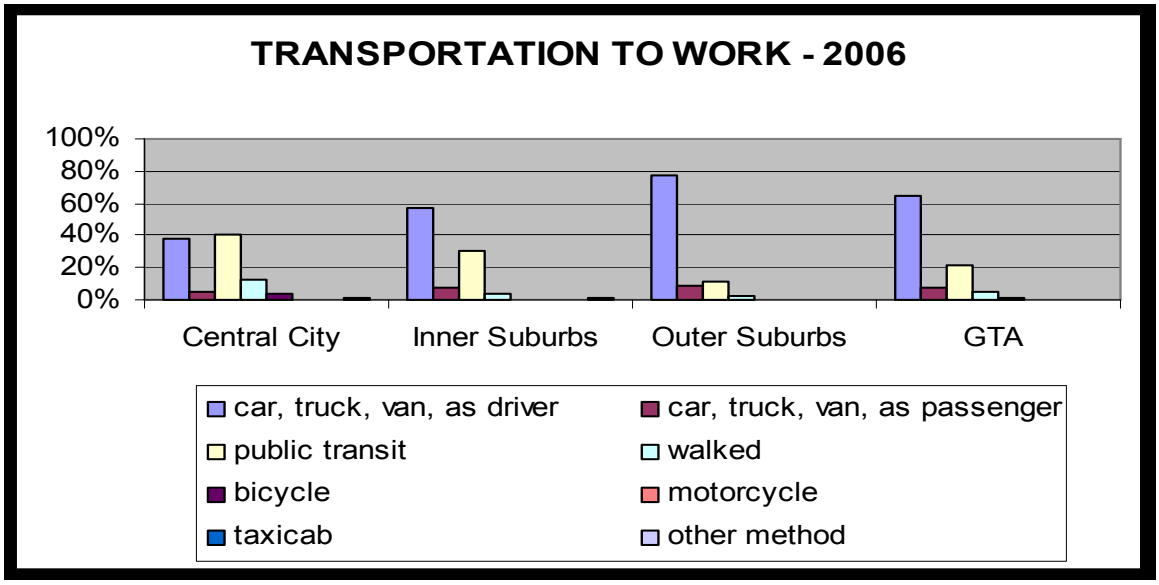


Table 4.33 – Place of Work and Transportation to Work Data for Residents of Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
In CSD of residence (2001)	72.8%	66.3%	31.8%	49.2%
In different CSD (2001)	10.2%	19.4%	53.3%	35.7%
At home (2001)	7.1%	5.4%	6.5%	6.3%
Outside Canada (2001)	0.5%	0.6%	0.4%	0.5%
No fixed workplace address (2001)	9.3%	8.2%	7.9%	8.3%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Car, truck, van, as driver (2001)	40.5%	60.4%	78.9%	66.4%
Car, truck, van, as passenger (2001)	4.2%	6.1%	7.2%	6.3%
Public transit (2001)	40.8%	29.1%	10.2%	21.3%
Walked (2001)	10.7%	3.3%	2.7%	4.4%
Bicycle (2001)	2.7%	0.4%	0.3%	0.8%
Motorcycle (2001)	0.1%	0.0%	0.1%	0.1%
Taxicab (2001)	0.4%	0.1%	0.2%	0.2%
Other method (2001)	0.6%	0.5%	0.5%	0.5%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
In CSD of residence (2006)	70.2%	63.0%	30.8%	46.0%
In different CSD (2006)	10.1%	19.9%	51.9%	36.3%
At home (2006)	8.4%	5.7%	6.7%	6.7%
Outside Canada (2006)	0.6%	0.6%	0.5%	0.5%
No fixed workplace address (2006)	10.4%	10.4%	9.8%	10.1%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
Car, truck, van, as driver (2006)	37.9%	57.0%	76.7%	64.9%

Car, truck, van, as passenger (2006)	4.7%	7.4%	8.4%	7.5%
Public transit (2006)	40.1%	30.5%	10.9%	21.0%
Walked (2006)	12.1%	3.4%	2.7%	4.5%
Bicycle (2006)	3.5%	0.5%	0.4%	0.9%
Motorcycle (2006)	0.1%	0.1%	0.0%	0.1%
Taxicab (2006)	0.3%	0.1%	0.1%	0.2%
Other method (2006)	0.7%	0.6%	0.5%	0.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.2.13 Level of Education

This section will only discuss the results of the 2006 data analysis, because the data relating to education within the 2001 and 2006 censuses is inconsistent between the two census years and therefore does not lend itself to comparison. In 2006, 49 percent of residents over the age of 20 in owned dissemination areas in the central city retained a bachelor's degree or higher, while less than 10 percent did not retain any certificate, diploma or degree. Rented dissemination areas in the central city maintained the second highest proportion of residents over the age of 20 possessing a bachelor's degree or higher, totaling 33.7 percent. The lowest proportions of residents possessing a bachelor's degree or higher is found among rented dissemination areas in the inner and outer suburbs. The highest proportions of those with a college, apprenticeship or partial university education is found among owned and rented dissemination areas in the outer suburbs. Rented dissemination areas within the inner and outer suburbs maintain the highest proportions of residents over the age of 20 that do not retain any certificate, diploma or degree. Lastly, rented dissemination areas in the inner suburbs are the only urban zone and tenure

pairing in which those with a high school or equivalent education are most prominent.

Figure 4.49 – Education in Higher Density Districts – 2006

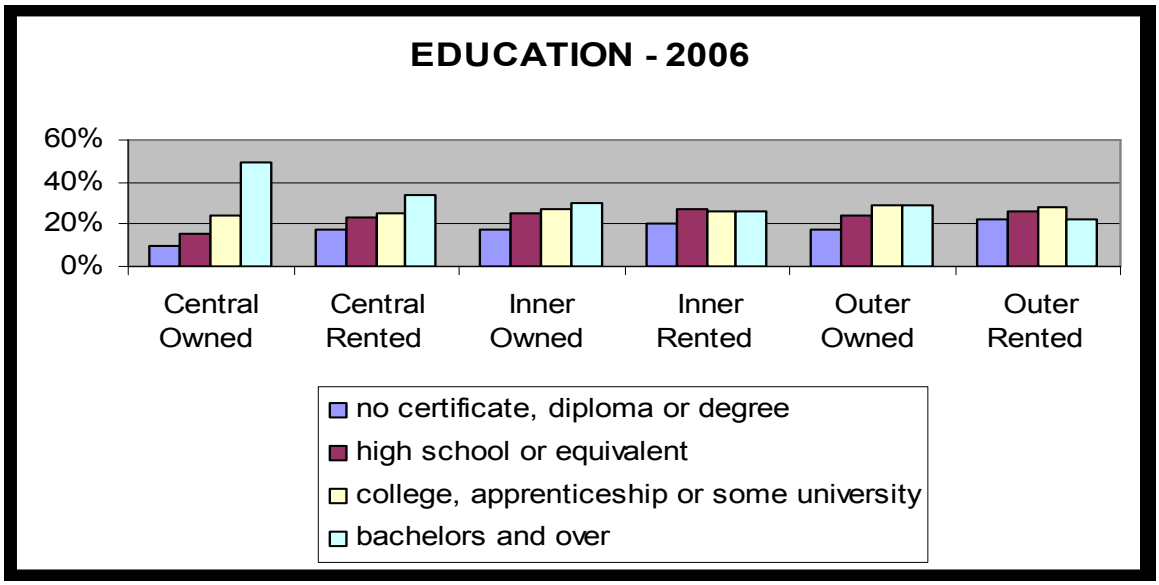


Table 4.34 – Education Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
No certificate, diploma or degree (2001)	17.2%	20.2%	23.5%	27.5%	24.6%	25.9%
High school or equivalent (2001)	21.7%	23.5%	25.8%	25.6%	25.1%	27.3%
College, apprenticeship or some university (2001)	26.8%	24.4%	25.0%	24.2%	27.9%	28.5%
Bachelors and over (2001)	34.0%	31.8%	25.8%	22.8%	22.2%	18.1%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*
No certificate, diploma or degree (2006)	9.7%	17.0%	17.5%	20.5%	17.0%	22.1%
High school or equivalent (2006)	15.9%	23.0%	25.1%	27.0%	24.4%	26.4%
College, apprenticeship or some university (2006)	24.1%	25.6%	26.9%	25.7%	29.1%	28.5%
Bachelors and over (2006)	49.1%	33.7%	30.1%	26.1%	29.0%	22.0%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*	*100.0%*

In 2006, among the general population of the central city, the most prominent level of education is, by a large margin, a bachelor's degree or higher, totaling 35.4 percent. Furthermore, the central city maintains the highest proportion of those with this highest level of education among the three urban

zones. Among the general population of the three urban zones, the proportion of residents over the age of 20 without any certificate, diploma or degree is relatively constant, sitting at approximately 20 percent. The highest proportion of those with a college, apprenticeship or partial university education is found in the outer suburbs, reaching 30.5 percent. The central city maintains the lowest proportion of those with only a high school or equivalent education. Furthermore, among the general population of the GTA, the most prominent level of education is college, apprenticeship or partial university completion, sitting at 28.2 percent. The high school or equivalent and bachelor's degree or higher levels of education maintain the second highest proportions among the general population of the GTA, totaling 25.6 percent each. Lastly, less than 20 percent of the general population of the GTA over 20 years of age retains no certificate, diploma or degree. Owned dissemination areas in all three urban zones maintain substantially greater proportions of those with a bachelor's degree or higher than the general populations of their respective urban zones, while rented dissemination areas maintain more similar proportions. In addition, all higher density urban zone and tenure pairings, with the exception of rented dissemination areas in the outer suburbs, maintain lower proportions of those with no certificate, diploma or degree than the general populations of their respective urban zones. Rented dissemination areas in the outer suburbs are the only urban zone and tenure pairing that maintains a lower proportion of those with a bachelors degree or higher than the general population of the GTA. Lastly,

rented dissemination areas in the inner and outer suburbs are the only urban zone and tenure pairings maintaining a higher proportion of those with no certificate, diploma or degree than the general population of the GTA.

Figure 4.50 – Education in Comparable Groups – 2006

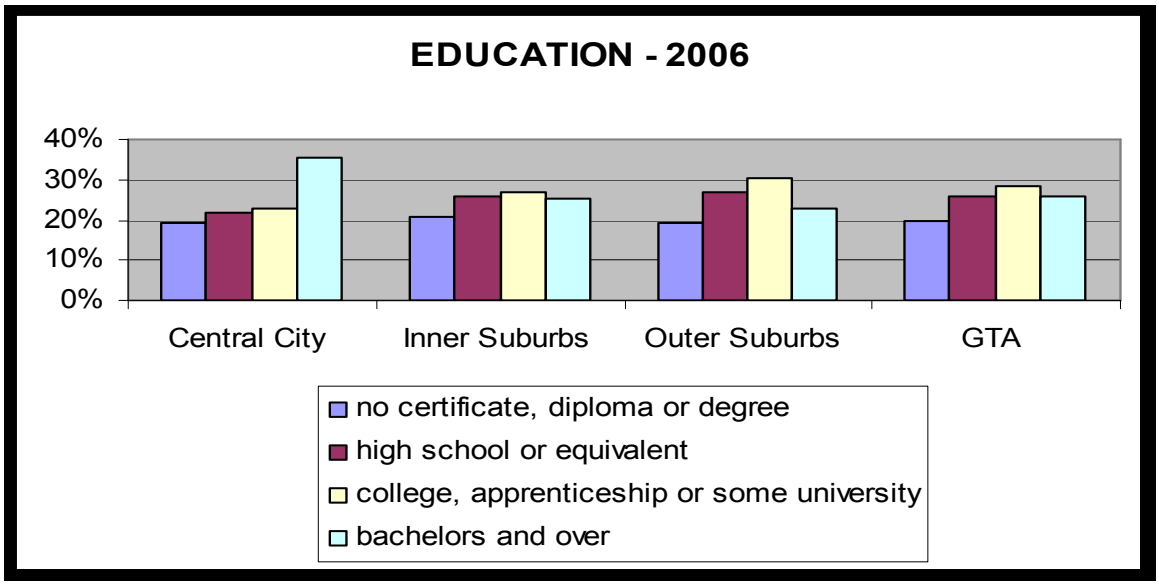


Table 4.35 – Education Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
No certificate, diploma or degree (2001)	23.3%	26.4%	21.4%	23.3%
High school or equivalent (2001)	15.1%	19.4%	21.1%	19.4%
College, apprenticeship or some university (2001)	28.3%	31.0%	36.3%	33.1%
Bachelors and over (2001)	33.4%	23.2%	21.1%	24.2%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*
No certificate, diploma or degree (2006)	19.1%	20.9%	19.1%	19.6%
High school or equivalent (2006)	21.6%	25.7%	26.8%	25.6%
College, apprenticeship or some university (2006)	22.9%	26.9%	30.5%	28.2%
Bachelors and over (2006)	35.4%	25.4%	22.6%	25.6%
Total	*100.0%*	*100.0%*	*100.0%*	*100.0%*

4.2.14 Income

The highest average median household income is found among owned dissemination areas in the central city, where it is substantially higher than in the

other urban zone and tenure pairings, totaling $66,752 in 2006. Owned dissemination areas in the inner and outer suburbs maintain average median household incomes of $51,439 and $49,969, respectively. The lowest average median household incomes are found among the rented dissemination areas in all three urban zones, where they are fairly consistent between the three pairings. In 2006, rented dissemination areas in the central city, inner suburbs and outer suburbs maintain average median household incomes of $34,662, $35,194 and $37,590, respectively. Between 2001 and 2006, the average median household income increased the most among owned dissemination areas in the central city, increasing approximately 13 percent. Average median household incomes of rented dissemination areas in the central city, and owned and rented dissemination areas in the inner suburbs increased approximately 5, 3 and 8 percent, respectively. Both owned and rented dissemination areas in the outer suburbs actually experienced decreases in average median household incomes of 2 to 3 percent from 2001 to 2006.

Figure 4.51 – Household Income in Higher Density Districts - 2006

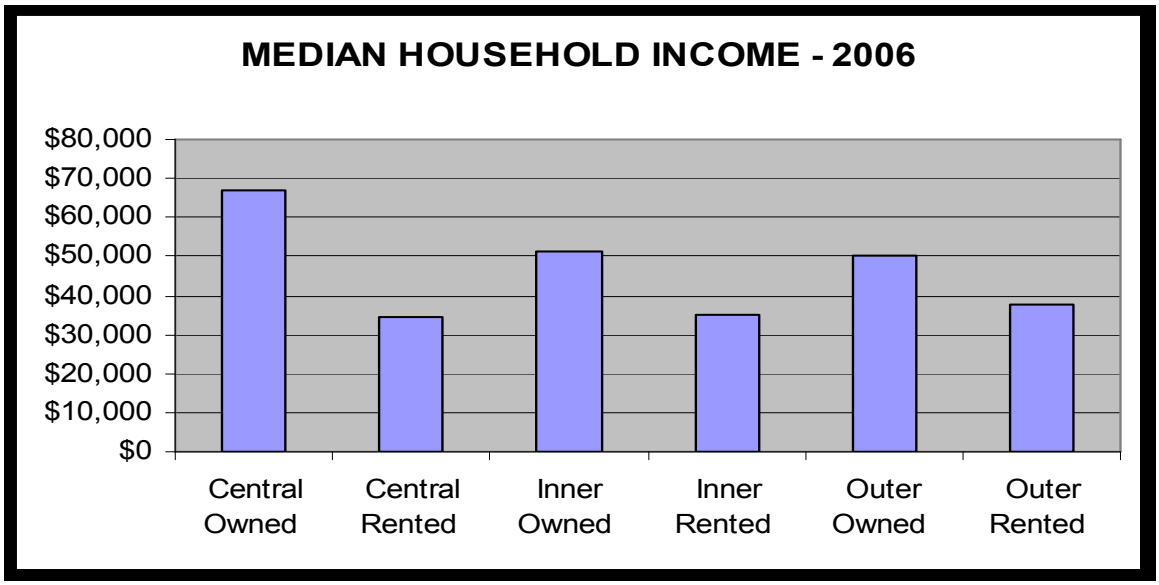


Table 4.36 – Household Income Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Median household income (2001)	$59,196	$33,057	$49,959	$32,592	$51,365	$38,387
Median household income (2006)	$66,752	$34,662	$51,439	$35,194	$49,969	$37,590

Among the general population of the three urban zones, the average median income of households in the outer suburbs was highest, totaling $80,144 in 2006. The central city and inner suburbs maintained average median household incomes of $56,834 and $58,553, respectively. The general population of all three urban zones experienced increases in average median household incomes between 2001 and 2006, with the outer suburbs experiencing the greatest increase at 9 percent, while the central city and inner suburbs experienced a 6 percent increase each. Owned dissemination areas in the central city are the only urban zone and tenure pairing that maintains a higher average median household income than the general population of its respective urban

zone. Among the general population of the GTA, the average median household income in 2006 was $69,054, an increase of almost 9 percent since 2001. The average median household income of the general population of the GTA is greater than that of all the higher density urban zone and tenure pairings.

Figure 4.52 – Household Income in Comparable Groups - 2006

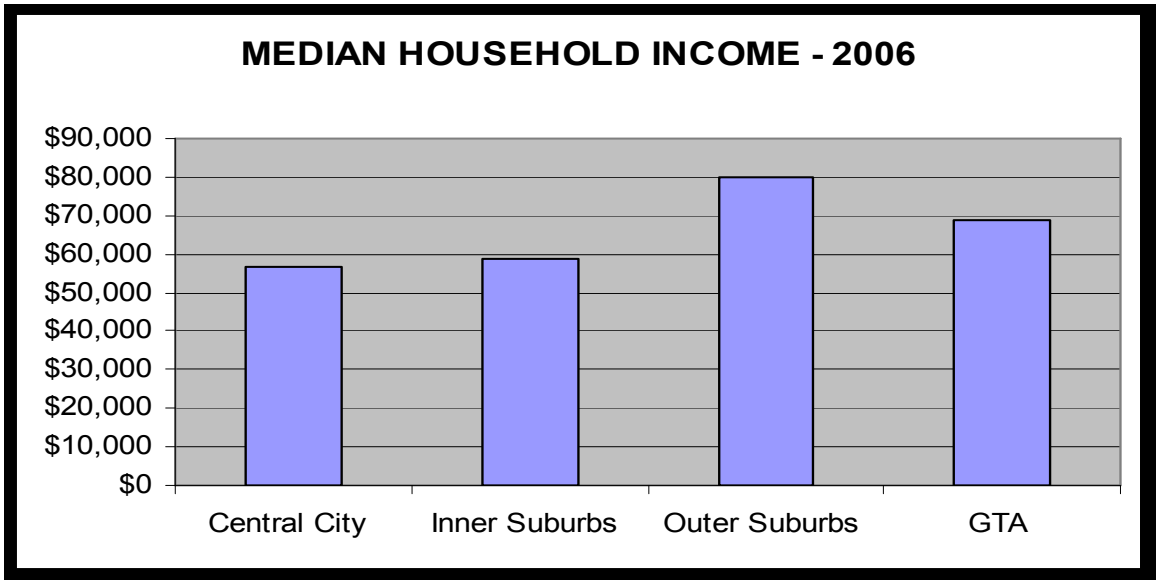


Table 4.37 – Household Income Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Median household income (2001)	$53,702	$55,287	$73,792	$63,653
Median household income (2006)	$56,834	$58,553	$80,144	$69,054

4.2.15 Prevalence of Low Income and Shelter Costs

In 2006, rented dissemination areas in the three urban zones maintain the highest prevalence of low income households. Of these three urban zone and tenure pairings, rented dissemination areas in the inner suburbs maintain the highest prevalence of low income households at 41.6 percent. The lowest prevalence of low income households is found among owned dissemination areas

in the central city, decreasing by over 6 percent since 2001, to 10.8 percent in 2006. In addition, between 2001 and 2006, rented dissemination areas in the central city along with rented dissemination areas in the inner suburbs have also experienced decreases in the prevalence of low income households, while the three remaining urban zone and tenure pairings have experienced increases.

Figure 4.53 – Prevalence of Low Income in Higher Density Districts – 2006

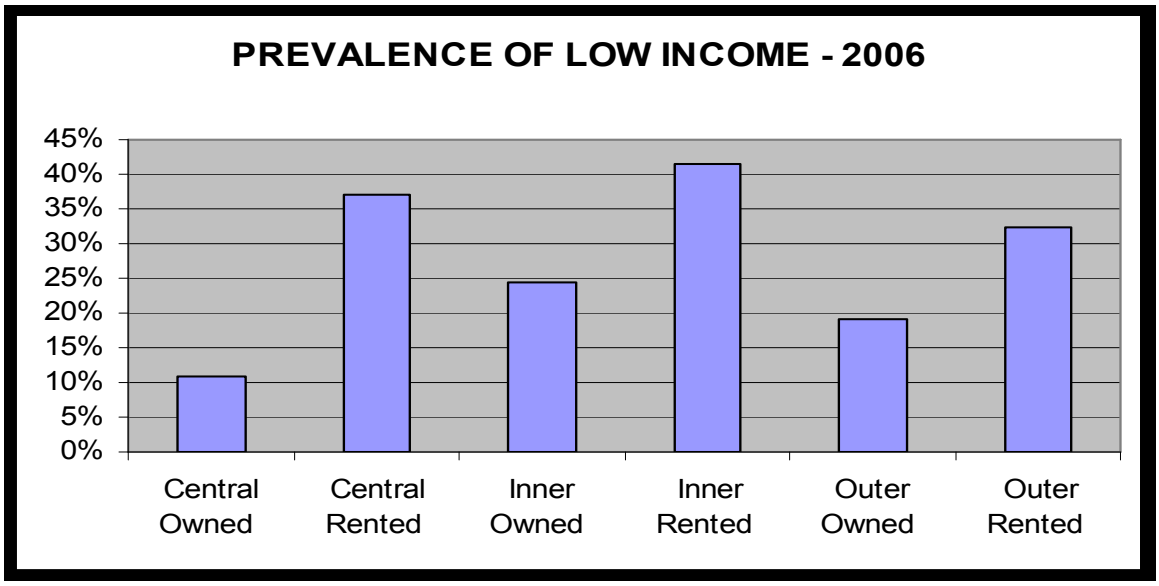


Table 4.38 – Prevalence of Low Income Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Prevalence of low income (2001)	17.0%	39.6%	21.9%	44.4%	16.8%	31.2%
Prevalence of low income (2006)	10.8%	37.2%	24.3%	41.6%	19.0%	32.3%

Rented dissemination areas in the central city, inner suburbs and outer suburbs, all maintain higher proportions of those households spending over 30 percent of their incomes on major household expenditures. A general rule for affordability is that a household should spend less than 30 percent of its gross

income on housing (Pomeroy, 2004). Owned dissemination areas in the central city maintain the lowest proportion of households spending over 30 percent of their income on major household expenditures, although it has increased by 5.7 percent to 35.5 percent between 2001 and 2006. In fact, all urban zone and tenure pairings have experienced significant increases, with the exception of rented dissemination areas in the inner suburbs, where the proportion of households spending over 30 percent of their income on major household expenditures has remained relatively stable. Overall, it appears as though the proportions of households whose major expenditures exceed 30 percent of their income have become more consistent among all of the urban zone and tenure pairings between 2001 and 2006.

Figure 4.54 – Shelter Costs in Higher Density Districts – 2006

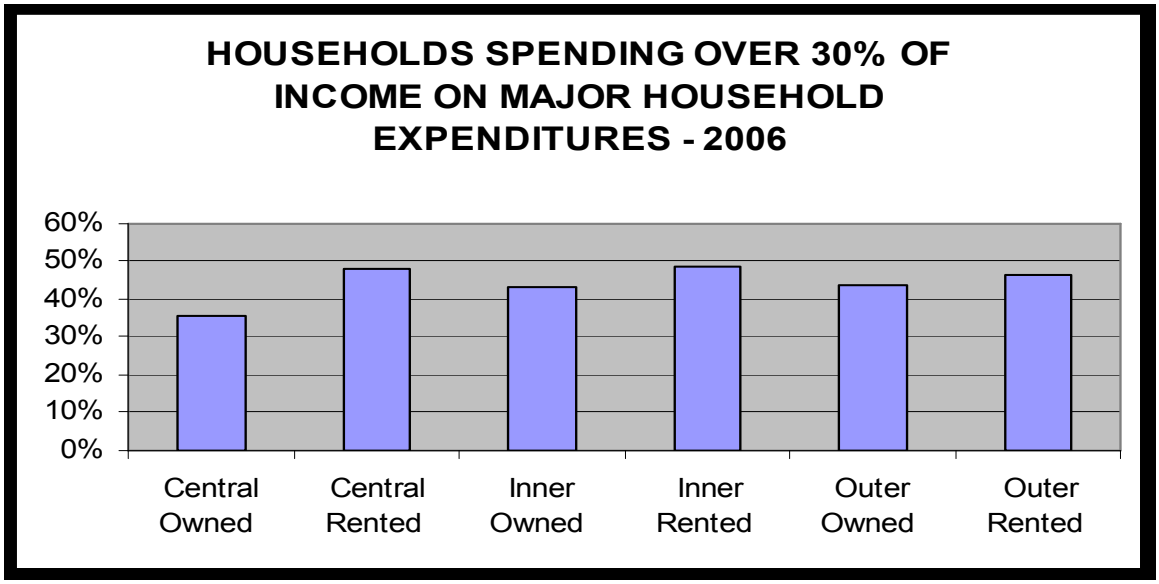


Table 4.39 – Shelter Costs Data for Higher Density Districts – 2001 & 2006

	Central Owned	Central Rented	Inner Owned	Inner Rented	Outer Owned	Outer Rented
Total spending over 30% of income (2001)	29.8%	44.1%	34.6%	48.6%	34.1%	42.5%
Total spending over 30% of income (2006)	35.5%	48.3%	43.3%	48.4%	43.6%	46.2%

Among the general population of the three urban zones, the central city and inner suburbs maintain a higher prevalence of low income households, approaching 25 percent in 2006, while the outer suburbs maintain the lowest at approximately 12 percent, increasing 2.2 percent since 2001. Owned dissemination areas in the central city are the only urban zone and tenure pairing with a substantially lower proportion of a prevalence of low income households than the general population of its respective urban zone. Furthermore, with the exception of owned dissemination areas in the central city, all other urban zone and tenure pairings maintain higher proportions of a prevalence of low income households than the general population of the GTA. The central city and inner suburbs maintain the highest proportions of those households with major household expenditures exceeding 30 percent of their income, with the outer suburbs maintaining the lowest at 28.5 percent in 2006, increasing 4.5 percent since 2001. All the higher density urban zone and tenure pairings, with the exception of owned dissemination areas in the central city, maintain substantially higher proportions of households with major household expenditures exceeding 30 percent of their income than the general populations of their respective urban zones. In addition, the general population of the GTA maintains a lower proportion of those households with major household expenditures exceeding 30

percent than all the higher density urban zone and tenure pairings. Among the general population of the GTA, the prevalence of low income households has increased by 1.6 percent to 17.5 percent between 2001 and 2006. In addition, the proportion of households spending more than 30 percent of their income on major household expenditures has increased from 28.5 percent in 2001 to 32.3 percent in 2006, among the general population of the GTA.

Figure 4.55 – Prevalence of Low Income in Comparable Groups – 2006

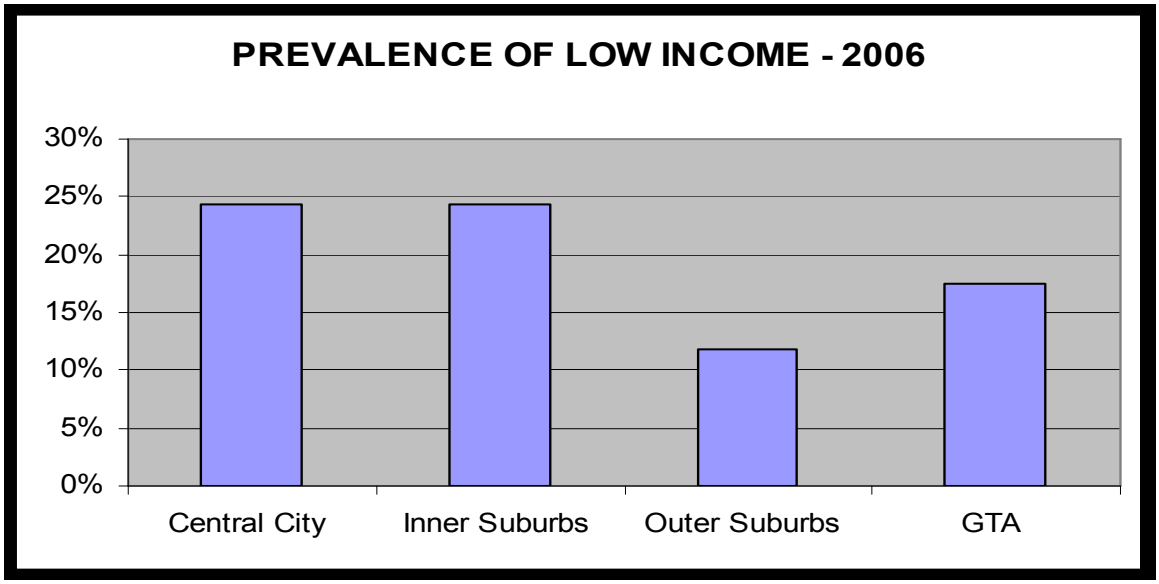


Figure 4.56 – Shelter Costs in Comparable Groups – 2006

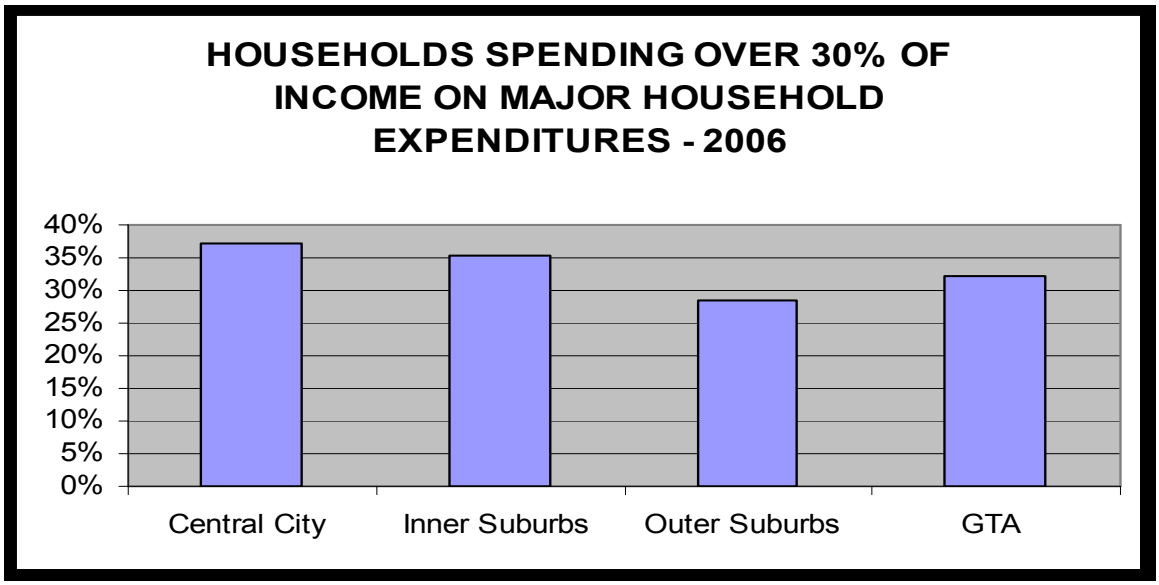


Table 4.40 – Prevalence of Low Income and Shelter Costs Data for Comparable Groups – 2001 & 2006

	Central City	Inner Suburbs	Outer Suburbs	GTA
Prevalence of low income (2001)	22.8%	22.4%	9.7%	15.9%
Total spending over 30% of income (2001)	33.2%	32.0%	24.0%	28.5%
Prevalence of low income (2006)	24.3%	24.4%	11.9%	17.5%
Total spending over 30% of income (2006)	37.2%	35.3%	28.5%	32.3%

4.3 Summary

It has been demonstrated that the GTA is a fast growing region, with the most population growth taking place in the outer suburbs, with the central city actually experiencing a population decrease. In addition, the GTA maintains a diverse stock of housing and significant proportions of both owned and rented tenure options. The central city maintains the largest proportions of high rise and lower rise, higher density housing, followed by the inner suburbs and then the outer suburbs. The outer suburbs on the other hand, maintain the highest

proportions of single-family detached dwellings. Furthermore, the central city maintains the lowest proportion of owned dwellings, with the outer suburbs maintaining the highest. It is these differences among housing stock and tenure type that help set apart the three urban zones from one another.

The results of this study regarding resident and household characteristics are relatively consistent with the hypothesis, which suggested that the existence of differences between higher density residential profiles is based on their location within the GTA and their tenure type. The results of this study clearly indicate the existence of not only a distinct higher density housing population in the GTA, but also of the existence of distinct sub-markets within the higher density housing market itself. Consistent with the hypothesis, differences in age, immigration status, education, income, occupation and household size are particularly apparent between higher density dissemination areas of both tenure types in the three urban zones. In addition, the urban zone and tenure pairings were shown to maintain varying levels of similarity with the general population of the GTA and its three urban zones. Owned dissemination areas in the central city appear to be the urban zone and tenure pairing that is most distinguishable from the other urban zone and tenure pairings based on resident and household characteristics. Rented dissemination areas in the inner suburbs appear to share the least amount of resident and household characteristics in common with owned dissemination areas in the central city. The four other urban zone and tenure pairings still, however, retain their own unique profile characteristics.

Furthermore, certain variables maintained relationships to urban zone and tenure pairings based on their location within the GTA, while other variables maintained relationships to urban zone and tenure pairings based on tenure. Other variables maintained no clear relationships to either urban zone or tenure individually, but rather to urban zone and tenure pairings in combination. Many changes also took place between 2001 and 2006, particularly among cultural variables such as home language and immigration, in most of the urban zone and tenure pairings.

Finally, it should be noted that this summary only broadly outlines some of the key trends and patterns found in the results. The following chapter will establish a general profile for each of the six urban zone and tenure pairings based on the groups of characteristics that make them unique. However, the complexity of the relationships between the variables makes reliance on generalizations inappropriate and dangerous. The careful evaluation of each variable category section to achieve a more complete understanding of the diverse resident and household profile of higher density housing in the GTA is necessary.

5.0 Discussion

The higher density housing market in the GTA has been identified as being distinct from the overall housing market. Additionally, this study has also identified the existence of six unique sub-markets within the GTA's higher density housing market, based on location within the GTA and housing tenure. The sub-markets, constituted by the six urban zone and tenure pairings, are distinct from one another based on the cultural and socio-economic characteristics of their households and residents. Each of the urban zone and tenure pairings, owned and rented dissemination areas in the central city, inner suburbs and outer suburbs, maintain a defined profile that contains a group of characteristics separating them from their counterparts. In addressing issues related to higher density housing in the GTA, planners must be aware that this segment of the housing market is diverse, containing numerous sub-markets.

Owned dissemination areas in the central city maintain many characteristics that deviate considerably from those of other urban zone and tenure pairings. This group maintains the highest proportions of young adult residents that are part of the 25 to 39 year old demographic. This group also maintains fewer families with children than the other urban zone and tenure pairings. There is a high proportion of residents living alone and also a high proportion of smaller households. Furthermore, owned dissemination areas maintain a high proportion of residents who speak only an official language at home. In relation, the proportion of non-immigrants in this group is high, while

the proportion of visible minorities is low relative to the other urban zone and tenure pairings. The unemployment rate is the lowest of all groups, with a significant proportion of residents being employed in the business and management fields. A large proportion of residents in this group work in their CSD of residence and walk to work. In addition, owned dissemination areas in the central city maintain the highest proportion of residents with a bachelor's degree or higher and also those who earn the highest income. Finally, the proportion of families living in owned dissemination areas in the central city without any children has increased substantially from 2001 to 2006.

Table 5.1 – Household and Resident Profile – Central Owned DA's

Profile Attributes
Young adult
Families without children
Living alone
Smaller households
Speak only official language at home
Non-immigrant
Non-visible minority
Low unemployment
Employed in business and management
Work in CSD of residence
Walk to work
Highly educated
High income

The defining characteristics of rented dissemination areas in the central city share some similarities with the previous group. This urban zone and tenure pairing also maintains a high proportion of young adults in the 25 to 39 year old age range. Residents who live alone or in small households are also common. Between 2001 and 2006, the proportion of residents who changed their place of

residence in both the previous 1 and 5 year periods has increased considerably. This group, however, maintains a higher rate of visible minorities than owned dissemination areas in the central city. Furthermore, a high proportion of residents living in rented dissemination areas in the central city work in their CSD of residence, use public transit to get to work and are employed in the sales and service sector. Finally, this group maintains the second highest prevalence of low income among all urban zone and tenure pairings.

Table 5.2 – Household and Resident Profile – Central Rented DA's

Profile Attributes
Young adult
Living alone
Smaller households
Higher visible minority
Work in CSD of residence
Public transit to work
Employed in sales and service
Low income household

A more even age distribution is apparent among the residents of owned dissemination areas in the inner suburbs. Residents in this urban zone and tenure pairing have a higher likelihood of being members of larger households and living in units that contain a greater number of bedrooms. Furthermore, this group maintains a high proportion of residents who primarily speak a non-official language only at home, as well as those that are immigrants. Driving to work is the most common form of commuting among residents of owned dissemination areas in the inner suburbs. Between 2001 and 2006, this urban zone and tenure pairing has experienced a substantial increase of those households spending

more than 30 percent of their household income on major household expenditures.

Table 5.3 – Household and Resident Profile – Inner Owned DA's

Profile Attributes
More even age distribution
Larger households
Greater number of bedrooms
Speak non-official language at home
Immigrant
Drive to work

Rented dissemination areas in the inner suburbs, like owned ones in the central city, are a group that maintains a particularly clear resident profile. Its age profile, like that of the previous group, is rather evenly distributed. Rented dissemination areas in the inner suburbs maintain the highest proportion of those families with children as well as the greatest numbers of children per family of all urban zone and tenure pairings. The proportion of larger households in this group is also high. This group contains a high number of immigrants in addition to those residents who speak only a non-official language at home. Rented dissemination areas in the inner suburbs maintain the highest rate of unemployment as well as the highest prevalence of low income among all urban zone and tenure pairings. Finally, this group has demonstrated a considerable increase in the proportion of its residents who have attained a bachelors degree or higher between 2001 and 2006.

Table 5.4 – Household and Resident Profile – Inner Rented DA's

Profile Attributes
More even age distribution
Families with children
High number of children per family
Larger households
Immigrant
Speak only non-official language at home
High unemployment
Low income

Residents living in owned dissemination areas in the outer suburbs have the highest likelihood of being 65 years or older. This group also maintains high proportions of those residents living alone, while also containing units with the highest average number of bedrooms of all urban zone and tenure pairings. Owned dissemination areas in the outer suburbs contain the highest proportions of those residents working in business related occupations, work in a different CSD than their residence and use a car to commute to their place of work. There has been a significant increase from 2001 to 2006 of residents in this urban zone and tenure pairing that are immigrants.

Table 5.5 – Household and Resident Profile – Outer Owned DA's

Profile Attributes
65 years or older
Living alone
High number of bedrooms
Employed in business related occupations
Work in different CSD than their residence
Drive to work

Finally, rented dissemination areas in the outer suburbs include high proportions of residents who fall into the 0 to 49 year old age range. This group

also contains a high number of families with children. Furthermore, those residents who have changed their place of residence over the last 1 and 5 year period are more common in rented dissemination areas in the outer suburbs than in any other urban zone and tenure pairing. There is also a high proportion of non-immigrant residents in this group. Occupations in the sales and service sector are the most prevalent, while driving a car remains the most popular way of commuting to work. However, between 2001 and 2006, the proportion of residents in this group driving to work has declined dramatically.

Table 5.6 – Household and Resident Profile – Outer Rented DA's

Profile Attributes
0 to 49 year old age range
Families with children
High mobility
Non-immigrant
Employment in sales and service
Drive to work

Provincial planning and growth management legislation in Ontario, which includes the Places to Grow Act, 2005, maintains at its core a commitment to achieving a more compact urban environment in Southern Ontario and the Greater Toronto Area through the promotion of urban intensification. Achieving this requires higher density housing options to form a greater portion of the total housing available. The various provincial growth legislation has partially resulted in the increased construction of higher density housing such as condominiums, however, it has been noted that further opportunity exists for more high density housing development in the GTA (Canada Mortgage and Housing Corporation,

December, 2005). Furthermore, the high turnover rate of condominiums and the perception of higher density housing as a short term housing option may indicate that this segment of the housing market is not responding to resident needs. The success of provincial growth management initiatives depends partly on an extensive familiarity with those that inhabit and those that will potentially inhabit higher density housing throughout the GTA. The information found in this study will help to guide the development of appropriate policy direction and implementation measures for achieving urban intensification by targeting the individual requirements and challenges of each of the unique higher density housing sub-markets outlined above. An understanding of the diverse resident and household profiles of higher density districts in the GTA may aid planners in accommodating the needs of existing residents as well as future residents, through developing appropriate policy and providing required infrastructure, thereby transforming higher density housing into a more desirable option for more residents.

The official plans of the cities of Toronto and Mississauga and the Region of Peel have been reviewed. Within these official plans there is a lack of reference to the existence of sub-markets within the general higher density housing market. All three of these plans do however make reference and have policies relating to higher density housing in general. The Toronto official plan makes specific reference to apartment neighbourhoods, stating that "improving amenities, accommodating sensitive infill, where it can improve the quality of life

and promoting environmental sustainability are key considerations". The Toronto official plan continues that, "residents in apartment neighbourhoods should have a high quality urban environment, safety, quality services and residential amenities" (City of Toronto, 2007). In its official plan, the City of Mississauga strives to ensure that "the housing mix can accommodate persons with diverse social and economic characteristics, needs and desires". In addition, Mississauga's official plan will try to "provide opportunities for the development of a range of housing choices in terms of type, tenure and price" (City of Mississauga, 2008). Finally, the Region of Peel maintains an objective within its official plan to "achieve a range and mix of housing types, densities, sizes and tenure to meet the existing and projected demographic and housing market requirements of current and future residents of Peel" (Region of Peel, 2005).

The three official plans referred to above may or may not be representative of the way that GTA regions and municipalities address higher density housing within their official plans. The large number of regions and municipalities within the GTA, 4 and 25 respectively, makes the examination of each of their official plans too time consuming and cumbersome. The three official plans selected for review are from those municipalities and regions with the greatest number of higher density dissemination areas. Consistent among these three official plans is the existence of goals or objectives seeking to provide a higher quality of life for higher density residents through providing required services and amenities, in addition to maintaining an appropriate

housing mix, responsive to the needs of current and future residents. As mentioned above, achieving both these general goals requires an extensive knowledge of who occupies and will likely occupy higher density housing of a specific tenure and in a specific part of the GTA. When reviewing development proposals planners can then more easily determine whether an application maintains required amenities or whether existing municipal infrastructure is in place, or what infrastructure will be required, to accommodate the needs of residents. Furthermore, planners may also more easily assess whether a proposal will contribute to the creation of a suitable housing mix, responsive to the needs of current and future residents.

With knowledge of the resident and household composition of higher density housing in various locations in the GTA and of different tenures, planners will be better equipped to assess demand for specific higher density housing based on population and demographic forecasting. Baxter's (2007) technique, which employed demographic forecasting to assess demand for specific housing types, can benefit from the information provided by this study. For example, a demographic forecast indicating increased levels of immigration or an aging population will point to the likelihood of increased demand for higher density rental housing located in the inner suburbs and an increased demand for higher density owned housing in the outer suburbs, respectively. Furthermore, policy direction can be influenced through the knowledge gained through this study along with demographic forecasts. For example, if demographic forecasts

indicate a decline in the demographic that predominantly inhabits higher density rental housing in a particular urban zone, then current municipal policy discouraging the conversion of rental housing to condominium ownership can be reversed. However, as noted earlier, the rental market is dynamic and demand can quickly return, therefore, maintaining a long term supply is important (Toronto Urban Development Services, 2000).

The information contained within this study may also assist planners in creating neighbourhoods that maintain a desired degree of diversity, cohesiveness or inclusiveness, elements that Jackson (2004) has identified as being essential for maintaining healthy communities. A common criticism of contemporary residential development is its physical as well as social homogeneity. Achieving a goal such as diversity will be more easily realized if it is known who will likely inhabit a particular tenure of higher density housing in one of the three urban zones. For example, a residential community in the outer suburbs will likely increase its level of socio-economic diversity through the inclusion of higher density rental housing, but not so much with the inclusion of owned higher density housing.

The identification of household and resident characteristics of the six distinct higher density housing sub-markets assists in developing policy direction that reflects the individual nature of each submarket. Small and declining households without children comprised of a younger age demographic among owned dissemination areas in the central city points to the need for smaller living

accommodations. While the average number of bedrooms is lower than in the other urban zones, it still remains higher than among rented dissemination areas in the central city. If average numbers of bedrooms per unit were to be reduced, then density may be increased, while still accommodating the needs of residents. It has been noted earlier that declining household sizes remain a challenge for urban intensification (Canada Mortgage and Housing Corporation, December, 2005). Furthermore, the high proportion of residents working locally and walking to their place of work indicates that appropriate locations for condominiums in the city center would be near major employment centers.

The small size of households in rented dissemination areas in the central city will also allow for residents in this urban zone and tenure pairing to be comfortably accommodated in small quarters as is currently the case, since the average number of bedrooms per unit in this group is already minimal. The local employment of renters in the central city also points to appropriate locations for rental housing in the central city to be located near employment opportunities. Finally, the high proportion of low income households among renters indicates the need for sufficient affordable housing options, identified by Pomeroy (2004) as being essential, to be available in the central city. A lack of affordability may be the reason for the high degree of household mobility in this urban zone and tenure pairing. While affordability may be improved through an increase in supply, a favourable environment for the construction of rental housing does not

currently exist in Ontario (Will Dunning Inc., 2005). The province ought to consider providing incentives to stimulate rental housing construction.

The larger households found among owned dissemination areas in the inner suburbs indicate the continued need for the high average number of bedroom per dwelling currently found in this urban zone and tenure pairing. The high proportion of condominium residents in the inner suburbs driving to work suggests that locations throughout the inner suburbs are appropriate, although locations along transit corridors may have the ability to change commuting habits. Furthermore, although incomes are high in this urban zone and tenure pairing, the proportion spending over 30 percent of their income on major household expenditures suggests that increased affordability of condominiums may make them more attractive for residents. Finally, the high proportion of immigrants in this group suggests that there will be continued demand for condominiums in the inner suburbs considering that high levels of immigration into the GTA are expected to continue (Canada Mortgage and Housing Corporation, September, 2008).

Rental units in the inner suburbs should maintain the largest units of all urban zone and tenure pairings due to their large households and greater numbers of children per family. To accommodate the needs of residents, the average number of bedrooms per dwelling needs to increase from its current level, which is equal to that of owned dissemination areas in the central city, a group with the smallest households. Knowing that families with children are most

prevalent in higher density rented districts in the inner and outer suburbs will indicate the requirement for schools and daycare facilities to be placed in close proximity to proposed rental housing in these urban zones. High unemployment and prevalence of low income indicated that affordability is a major concern for rental accommodation in the inner suburbs. Proposed housing development in urban zone and tenure pairings with a high prevalence of low income should be located within a close proximity to lower income support services. Gauging by the high levels of immigrants residing in this urban zone and tenure pairing, higher density rental housing in the inner suburbs will continue to remain in demand.

The high proportion of those over the age of 65 years and living alone suggests that condominiums are a popular option for elderly people in the outer suburbs. As a result, the large units with a high average number of bedrooms per dwelling are not necessary. Like with the case of owned dissemination areas in the central city, density can be increased by building smaller units. Furthermore, condominiums in the outer suburbs should be sited near long term care facilities so that residents may continue to live in the same neighbourhood if they lose the capacity to care for themselves. In addition, location in close proximity to transit hubs and corridors may be beneficial to the large numbers of residents in this group commuting to a different CSD and currently relying on driving a car to work, if changing current commuting patterns is a goal. Close proximity to arterial roads may be important if accommodating current

commuting behaviour is desired. Lastly, as is the case with several of the other urban zone and tenure pairings, the increasing popularity of condominiums in the outer suburbs among immigrants will likely result in a positive effect on demand, taking continued high immigration levels into account.

The high rate of mobility among rented dissemination areas in the outer suburbs may indicate the housing needs of residents are not being satisfied. Knowledge of this situation may prompt planners and researchers to determine the reason for this and if it is a necessary part of the housing cycle or needs to be addressed through policy or other means. The high average number of bedrooms per dwelling relative to other rental groups implies that the space requirements to accommodate high proportions of families with children are at least partially being met, although more space is probably warranted. While driving a car to work remains prevalent, the fact that its popularity has declined, with the popularity of public transit increasing, suggesting that high density rental housing in the outer suburbs should be located near transit hubs and corridors.

The results and conclusions of this study will also be valuable to other allied professions, related to the real estate, design, building and land development industries. Architects will find the information contained within this study useful when designing a high density residence. Knowledge of who will likely inhabit the finished unit will guide them in equipping individual units and configuring the entire building appropriately. Builders and developers will gain a

better understanding of who they are building for and may plan and develop their projects accordingly. Knowing that both owned and rented higher density dwellings in the inner suburbs maintain the largest households and owned and rented higher density dwellings in the central city maintain the highest proportions of those residents living alone will allow related professionals to design and build accordingly.

Furthermore, a greater understanding of the diverse resident profile of higher density housing will aid those responsible for the marketing of projects. For example, knowing that residents of owned higher density dwellings in the central city are highly educated, that proportions of recent immigrants are highest among rented dwellings in the inner and outer suburbs and that both tenure types in the inner suburbs maintain the highest proportions of households where the home language is a non-official one will enable marketers to tailor their efforts to appeal to the appropriate target market. Finally, lenders may develop a greater ability to gauge the likelihood of success of a proposed project in a particular location. These several examples are only some of the more direct ways that the information contained within this study can be of assistance to professions related to planning.

6.0 Conclusion

The goal of this research study was to provide insight into the resident and household composition of higher density residential districts in the Greater Toronto Area. To reach this goal, predominantly higher density dissemination areas with a relatively homogenous tenure composition were identified in the GTA's three urban zones, including the central city, inner suburbs and outer suburbs. Demographic and socio-economic data for these districts was obtained from the 2001 and 2006 Canadian censuses. Relevant variables related to demographic and socio-economic characteristics were then selected and included in the analysis to determine the level of relationship with location within the GTA and predominant tenure type, referred to as an urban zone and tenure pairing. In addition, using data from both the 2001 and 2006 census years provided the opportunity to assess the trends over time and make projections into the future. Furthermore, general population data from the GTA and its central city, inner and outer suburbs was included in the analysis for purposes of comparison.

The compact city has been identified in the literature as having numerous economic, environmental and socio-cultural benefits. As a result, many governments have encouraged urban areas within their jurisdiction to adopt development principles that promote urban intensification. This has been the case in the GTA, contributing to the emergence of what is considered to be the largest condominium market in North America. Furthermore, the GTA maintains an extensive rental housing stock, which is largely located in higher density

environments. As a result, the higher density housing market, of both owned and rented tenures, comprises a significant share of the total housing stock and is vital to residents of the city. In addition, previous research has revealed the existence of a higher density housing market that is comprised of residents with unique demographic and socio-economic characteristics. While extensive research involving many aspects of higher density residential development has been undertaken, a noticeable lack exists in the literature with regard to the existence of diversity within the larger higher density housing market.

The significance of this research study lies in the investigation of research questions that have not been considered by researchers in the GTA context. The analysis has confirmed the hypothesis of this study, based on previous research such as the Toronto Urban Development Services (2000) study, which suggested the existence of a heterogeneous higher density residential population within the GTA. This study has identified six higher density housing sub-markets, defined by urban zone location and type of housing tenure, each maintaining a distinct household and resident profile. In addition, the results of this study have also confirmed the hypothesis by demonstrating the existence of a unique higher density housing market, independent from the larger housing market as a whole, as was indicated by previous research such as the Metropolitan Toronto Planning Department (1994) study. Some demographic and socio-economic variables maintained a closer relationship with urban zones, while others maintained closer relationships with the predominant types of tenure. Certain demographic and

socio-economic variables maintained no clear relationship with either urban zone or tenure. Considering the results of this study, the higher density resident population within the GTA cannot be generalized. The characteristics of higher density residents may vary significantly, based on their housing tenure and location within the GTA. As a result, a set of policy related responses addressing the diversity of the higher density housing market in the GTA have been proposed, to increase the prospect of successful urban intensification through addressing the varied needs of higher density residents. Lastly, the resident and household composition of higher density housing among all urban zone and tenure pairings has undergone the transformation of at least some of their characteristics between 2001 and 2006, indicating a continuously evolving higher density residential profile in the GTA. The unique, heterogeneous and changing nature of the higher density housing market in the GTA will need to be considered by all relevant parties in the decision making process.

6.1 Strengths of Methodology

The strengths of this study are related to both the methodology of this study, in addition to the methodology of the 2001 and 2006 Canadian censuses. The strengths of the research methodology employed by this study include the size and completeness of the sample of higher density dissemination areas. Through this, there is a greater likelihood that statistically significant results are able to be achieved as well as the possible generalization to other urban areas containing higher density residential districts, provided the characteristics of

residents in the GTA are shown to be similar to other urban areas. Systematically visiting numerous sets of dissemination areas in person to assess their composition increases the likelihood that the appropriate definition of higher density dissemination area was chosen and will be appropriate to achieve the goal of this research study. Another strength of the methodology includes consolidating and simplifying the original census variables, allowing the analytical results to be more easily interpreted. In addition, the use of recent data and data generated at two different points in time provides the opportunity for a current evaluation of resident characteristics as well as the ability to evaluate trends over time. Furthermore, during the data preparation process, removing data that was clearly incorrect increased the quality of the data and hence the validity of the results. Finally, the use of localized comparable groups, composed of the general population, at the urban zone and GTA levels, ensures that results are compared to the most relevant geographic areas.

Using the data accumulated by Statistics Canada may also be considered a strength for several reasons. All of the population is polled to generate information related to demographics, while a statistically significant sample of 20 percent of the population is used to generate projections for cultural and economic characteristics. A high proportion of the population was therefore polled for their survey, increasing the likelihood of the average reported values being valid. Furthermore, the data collection instrument, a survey questionnaire, was consistently administered to all participants, thereby increasing reliability. In

addition, the use of the high quality data presented by Statistics Canada contributes to the strength of this study's methodology. Statistics Canada maintains a rigorous quality assurance program in evaluating the data collected for the census. Quality assurance takes place throughout the census process, commencing prior to data collection and ending after the release of the results (Statistics Canada, 2008).

6.2 Limitations of Methodology

Like the strengths, the limitations of this study's methodology are related both to this study, as well as the methodology used by Statistics Canada. While the generalizability of results was identified as a possible strength, it may also be a limitation, depending on the representative nature of this study's sample with other urban areas. Related to the raw data, it is presented in an aggregated form, limiting the type of analysis that would be appropriate for that type of data. Other limitations are related to the variables included in the analysis. For example, the merging of related variables may have distorted the nature and intention of the original data. Also, the significant reduction of the original data's large number of variables may have resulted in the omission of some relevant variables that may have contributed to more complete and valuable results. Furthermore, the inconsistency of the education data, disallowing comparison between the 2001 and 2006 censuses, establishes an additional limitation. Another limitation relates to the possibility of high variation between the density levels of the dissemination areas based on the sample selection parameters

established in this study. For example, the possibility of some predominantly higher density dissemination areas maintaining the maximum proportion of detached homes as allowed by the study's parameters may result in skewed data. Furthermore, the current or past municipal boundaries defining the three urban zones may be somewhat artificial, with the characteristics of the three zones overlapping in some places, thereby obscuring the relationship between resident characteristics and location within the GTA. Finally, other limitations are related to the preparation of the raw data required for the analysis. During the process of collecting, transferring, processing, correcting, transforming and calculating the raw data, the researcher may have introduced errors, possibly distorting the validity of the data.

Statistics Canada is obligated to inform users of its data of the methodology used in collecting and processing the data, as well of the quality of the data so that users are able to asses the degree to which errors may affect the use and interpretation of the data. Errors inherent in Statistics Canada's methodology can be grouped into several major categories. Coverage errors include the omission of participants from the data collection process, prompting adjustments to be made to the data to account for these overlooked statistical units. Non-response errors refer to questionnaires returned incomplete or not returned at all. A response error is considered to be an error resulting from an incorrect answer to a survey question, such as the misreporting of income. Processing errors originate from questionnaire response information being

transferred or coded into a database for analysis purposes. In addition, sampling errors stem from the fact that while some demographic questions are asked of the entire population, most of the data related to cultural and economic information is obtained from a sample of one in five households and then projected to the whole population. Although Statistics Canada aspires to ensure high standards, a certain degree of error is inevitable through undertaking a nationwide census and by necessity producing the estimates and projections described above, based on a data sample (Statistics Canada, 2008). These various errors inherent to Statistics Canada's methodology result in limitations for this study because of its use of potentially inaccurate census data. Finally, the questionnaire used to gather data for the Canada census will have generally included questions of a closed ended nature. The answers to these questions will likely not yield the in-depth responses required to generate a complete understanding of the characteristics forming the profile of higher density residents in the GTA. There are therefore risks involved in basing the conclusions of this study on the data provided by Statistics Canada.

6.3 Recommendations for Further Research

While this research study has provided valuable insight into the nature of higher density household and resident profiles in the GTA, further questions remain, pointing to possible directions for further research. Employing a different methodology in a similar study may yield new or expanded results. For example, a qualitative approach using questionnaires or in depth interviews may provide a

deeper understanding of those living in higher density housing. Additionally, the researcher may choose to focus on specific variables such as household income, age or immigration status. Undertaking a similar study after the results of the 2011 census are released would be particularly useful in continuing to monitor and evaluate the trends that have been identified in this study. Observing trends over a 10 year period will provide the researcher with a greater ability to forecast the evolution of the higher density housing market. Furthermore, carrying out a similar study in another major urban center, either in Canada, the United States or further abroad, would allow for the possibility of the comparison of the results from a distinct market with the results of this study, to consider potential strategies and models for higher density housing management and development. Although this study has investigated the presence of higher density housing sub-markets based on location within the GTA and housing tenure, the investigation into the presence of other sub-markets would provide a value similar to the one found in this study. Other variables of interest such as housing price points, housing condition, age of housing, proximity to amenities such as public transit or employment, and other urban locations just beyond the GTA, such as Barrie, Kitchener or Peterborough may also be compared with the characteristics of households and residents. Furthermore, the household and resident characteristics of other forms of housing, such as lower density, or urban neighbourhoods, can be compared. These various suggestions for further research are only several of those most closely related to this study, however the

possible directions one can take with regard to researching higher density housing, housing sub-markets or housing in general are beyond measure.

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