# RESEARCH REPORT
## External Research Program

# Residential Density and Quality of Life

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**RESIDENTIAL DENSITY**

**AND**

**QUALITY OF LIFE**

CMHC External Research Program
Programme de subventions de recherche de la SCHL

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# Acknowledgment

Abstract

     Residential density thresholds are used by developers, designers and regulators to achieve a balance between land use efficiency and an acceptable quality of residential environment. This study used an environmental psychology approach to evaluate and explain the effect of home and neighbourhood crowding, as indicated by various density measures, on resident satisfaction with respect to dwelling conditions, neighbourhood quality and neighbourhood facilities.

     The study was executed at eleven sites in Ottawa, chosen to represent low, medium and high density housing types, and controlled for housing mix and land use mix. A questionnaire survey instrument was used.

     Interesting findings included the following:

1. The medium density housing sites yielded consistently lower dwelling satisfaction.

2. The low density housing sites offered the highest neighbourhood satisfaction. Inner-city, older neighbourhoods yielded the worst satisfaction.

3. The only home crowding measure that correlated with dwelling satisfaction was persons per bedroom.

4. No neighbourhood crowding (density) measures would predict neighbourhood satisfaction

     Two essential insights were obtained.

A. In predicting the effects of home crowding on residents satisfaction both housing types and persons/bedroom should be used. Residential environmental perception is housing-type specific.

B. Our findings question the conventional wisdom of assigning medium density housing types, especially rowhousing, terrace housing and walkup apartments as "favourite" candidates for affordable housing. They performed consistently poorly in our study. However, affordability and habitability need not be irreconcilable.

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Summary

Residential density thresholds are used by developers, designers and regulators to achieve a balance between land use efficiency and an acceptable quality of residential environment. This study used an environmental psychology approach to evaluate and explain the effect of home and neighbourhood crowding, as indicated by various density measures, on resident satisfaction with respect to dwelling conditions, neighbourhood quality and neighbourhood facilities.

The study was executed at eleven sites in Ottawa, chosen to represent low, medium and high density housing types, and controlled for housing mix and land use mix. A questionnaire survey instrument was used which sought to measure resident satisfaction/dissatisfaction and expectation about dwelling conditions (exterior and interior), neighbourhood quality (crowding-related and non-crowding-related), and neighbourhood facilities (quality and accessibility). The explanatory variables included home and neighbourhood densities, housing stock characteristics and personal and household characteristics. A total of 194 responses were obtained.

Interesting findings included the following:

1.    The medium density housing sites yielded consistently lower dwelling satisfaction.

2.    The low density housing sites offered the highest neighbourhood satisfaction. Inner-city, older neighbourhoods yielded the worst satisfaction.

3.    High degree of urbaness (nonresidential-related uses) and mixed housing offered higher satisfaction for neighborhood facilities. The medium density housing sites had the best performance, the highrises the worst.

4.    Dwelling satisfaction was higher than neighbourhood satisfaction, suggesting perhaps that people were less critical of their own private environment than they were of the public and shared environment.

5.    Satisfaction with facilities quality was higher than satisfaction with their accessibility.

6.    Environmental stress occurred when high expectations were met with low

satisfaction. Measured this way, we found most expectations were "realistic", although the gaps were somewhat larger in the medium density housing group.

7.  The only home crowding measure that correlated with dwelling satisfaction was persons per bedroom.

8.  No neighbourhood crowding (density) measures would predict neighbourhood satisfaction

9.  Within the medium density housing group the mix of rowhouses/townhouses and apartments seemed to affect dwelling and neighbourhood satisfaction. The interesting irony was that while residents of medium density housing placed greater importance on ground-entry than residents in low and high density housing, they rated it the lowest among their other housing needs, such as security from crime and traffic safety.

Two essential insights were obtained.

A.  The planning profession has been using housing types (single-family houses, duplexes, triplexes ... highrises) interchangeably with both dwelling and neighbourhood density types (low, medium and high). We found all of the so-called medium density housing sites (triplexes, townhouses, 3-4 storey apartments) had population and dwelling densities comparable to, or higher than the highrise apartment sites. In predicting the effects of home crowding on residents satisfaction both housing types and persons/bedroom should be used. In other words, residential environmental perception is housing-type specific.

B.  Our findings question the conventional wisdom of assigning medium density housing types, especially rowhousing, terrace housing and walkup apartments as "favourite" candidates for affordable housing. They performed consistently poorly in our study. However, affordability and habitability need not be irreconcilable. The most important housing attributes are privacy in the home and security from crime in the neighbourhood. Ground-level entry and walking distances to neighbourhood facilities are among the least important. Sensible trade-offs can be made between these to attain affordable and appropriate housing.

## Densité résidentielle et qualité de vie

**Résumé**

Les promoteurs, les concepteurs et les autorités réglementantes utilisent les plafonds de densité résidentielle pour établir l'équilibre entre une utilisation efficiente des terrains et un milieu résidentiel acceptable. Les auteurs de l'étude ont eu recours à une méthode de psychologie du milieu pour évaluer et expliquer l'effet de la densité des logements et des quartiers, comme l'indiquent diverses mesures de densité, sur la satisfaction des occupants en ce qui a trait aux conditions de logement, à la qualité du quartier et aux installations.

L'étude a été menée dans onze emplacements d'Ottawa représentatifs des logements de faible, moyenne et haute densité ainsi que des divers types de logements et de l'occupation des sols. Un questionnaire d'enquête a servi à mesurer le degré de satisfaction et d'attente des occupants par rapport aux conditions de logement (à l'extérieur et à l'intérieur), à la qualité du quartier (axée et non axée sur le peuplement) et les installations du quartier (qualité et accessibilité). Les variables explicatives incluaient la densité des logements et des quartiers, les caractéristiques du parc de logements et les caractéristiques des personnes et des ménages. Un total de 194 réponses a été reçu.

Voici certains des résultats intéressants :

1. Les zones d'habitation de moyenne densité contribuent sans exception à un faible degré de satisfaction.

2. Les zones d'habitation à faible densité recueillent le degré de satisfaction le plus élevé par rapport au quartier. Les vieux quartiers des centres-villes suscitent le moins de satisfaction par rapport au quartier.

3. Le haut niveau d'urbanité (usages non résidentiels) et les logements divers contribuent à une plus grande satisfaction par rapport aux installations de quartier. Les zones d'habitation de moyenne densité obtiennent la meilleure cote, les tours d'habitation, la pire.

4. Le degré de satisfaction par rapport au logement était plus élevé que celui par rapport au quartier, ce qui peut laisser croire que les gens sont moins critiques envers leur propre milieu qu'envers le milieu public et collectif.

5. La qualité des installations suscite une plus grande satisfaction que leur accessibilité.

6. Un stress environnemental se produit lorsque les attentes élevées sont satisfaites et que le degré de satisfaction est faible. Selon cette mesure, nous avons découvert que la plupart des attentes sont «réalistes» bien que les écarts soient légèrement plus importants chez le groupe des logements de moyenne densité.

7.	La seule mesure de densité des habitations qui correspondait à la satisfaction par rapport aux logements était le nombre de personnes par chambre à coucher.

8.	Aucune mesure du peuplement des quartiers (densité) ne laisse prévoir la satisfaction par rapport aux quartiers.

9.	Au sein du groupe des habitations de moyenne densité, la combinaison des maisons en bande et des appartements semble avoir un effet sur la satisfaction par rapport aux logements et aux quartiers. Fait plutôt ironique, alors que les occupants des logements de moyenne densité insistent davantage sur l'importance d'une entrée privée que les occupants des logements de faible et de haute densité, ils classent cette caractéristique au niveau le plus bas parmi leurs autres besoins en logement comme la sécurité contre le crime et la circulation.


Deux renseignements essentiels ont été obtenus.

A.	Les urbanistes utilisent indifféremment les termes désignant les types de logements (maisons individuelles, duplex, triplex, tours d'habitation, etc.) et les types de densité (faible, moyenne, haute) des logements et des quartiers. L'étude révèle que la population et la densité des logements de toutes les zones d'habitation dites de moyenne densité (triplex, maisons en rangée, immeubles d'appartements de 3 ou 4 étages) étaient semblables ou supérieures à celles des zones contenant des immeubles de grande hauteur. Pour calculer les effets de la densité des logements sur le degré de satisfaction des occupants, on doit utiliser à la fois les types d'habitation et le nombre de personnes par chambre à coucher. Autrement dit, la perception du milieu résidentiel varie selon le type de logement.

B.	Les résultats remettent en question le bien-fondé de la détermination des logements à moyenne densité, particulièrement les maisons en bande et les immeubles sans ascenseur, comme les «favoris» pour le logement abordable. Ils obtiennent sans exception de faibles résultats dans notre étude. L'abordabilité et l'habitabilité ne sont cependant pas nécessairement inconciliables. Les deux principales caractéristiques des habitations sont l'intimité à l'intérieur du logement et la sécurité contre le crime dans le quartier. Les entrées privées et la proximité des installations de quartier sont parmi les moins importantes. Des compromis sensés peuvent être faits entre ces caractéristiques pour la création de logements abordables et convenables.

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PREAMBLE

An important justification for any residential development control standard is the protection and enhancement of the quality of life of the residents. The most important development control standard is density. By controlling density and its mix we are manipulating the physical and social environment essential to the maintenance or enhancement of the quality of the life of the residents.

Through time, we have accumulated certain rules-of-thumb and conventional wisdom about the effect of various densities on the physical and social environments, that is, density thresholds. The usual range or residential densities in North America is from one to 120 dwellings per acre, and is based primarily on the concept of "privacy through distance".

Density thresholds are used by developers, designers and regulators alike to achieve a balance between land use efficiency (with infrastructure and design implications) and an acceptable quality of residential environment. Unfortunately, most of our density standards were developed in the 1940s and 1950s, at a time when socioeconomic, cultural, and technological contexts of residential development (and living) were quite different from those of today. They were adopted at a time of unprecedented population growth, predominance of male-headed nuclei families, extreme overcrowding and deteriorating housing stock in inner city areas, overwhelming cultural emphasis on owning one's own land, ascendence of the private automobile, lack of environmental and energy concerns, cheap suburban land, and heavily subsidized physical and social infrastructure for new development. Using these same standards today means accepting the same assumptions and contexts. Yet, very little research has been done to evaluate the relevance of these standards for present-day conditions and needs, or to develop new and appropriate ones.

It is the purpose of this study to examine the relationship between residential density and the quality of life in the residential environment, under today's conditions, technologies, needs and aspirations. Specifically, the proposed study will examine user satisfaction in terms of shelter quality, neighbourhood conditions, and service accessibility within various residential

environments which are defined by their densities.  There are three objectives.

1.   To identify user satisfaction in terms of shelter quality, neighbourhood conditions, and service accessibility in different residential environments as defined by their density levels and land use mixes.

2.   To examine these perceptions against conventional wisdom about the relationship between densities and user satisfaction, and to explain the discrepancies.

3.   To draw lessons for innovative residential density standards, which may contribute to the attainment of affordable housing in both ownership and rental housing sectors.

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# SECTION 1  QUALITY OF LIFE AND RESIDENTIAL CROWDING

# 1. QUALITY OF LIFE AND RESIDENTIAL CROWDING

This section is organized as follows.

1.1 Quality of life

1.2 Quality of life and the residential environment

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## 1.1. Quality of Life

"Quality of life" (QoL) has been used synonymously with "well being", "satisfaction", and other similar terms. There is no simple definition, though it is generally accepted that improvement in the quality of Life is an important goal of public policies and programs (Schuessler and Fischer, 1985). To this end, much research effort has been directed to establishing measures of quality of life that are meaningful for policy discussions.

There are different spatial scales at which QoL can be studied -- nationwide, city-wide, within a specific neighbourhood, or within a dwelling itself (e.g. Campbell, Converse and Rodgers, 1976). Each of these separate domains has a different usefulness, depending on what type of information is being sought.

Ben Chieh Liu, a pioneer in this field, justifies the work as follows.

"The search for Quality of Life indicators is an attempt to obtain new information that will be useful to evaluate the past, guide the action of the present and plan for the future. The empirical measures of various levels of quality of life enjoyed by Americans are aimed at the identification of strengths and weaknesses of our national health so that decision makers, be they public or private, can be assisted as they seek to evaluate and plan for a better quality of life." (Liu, 1976, p.3)

In his measurement of QOL he stresses production and utility of resources, and their ability to meet the needs of individuals (see also Schuessler & Fischer, 1985). He focuses on physical measures (i.e. quantifiable, observable measures) in five broad goal areas - economic, political, environmental, health & education, and social (Liu, 1976). He insists that measures should be universal so that fundamental principles can be generally agreed upon, commonly understood that they can be realistically and efficiently used in policy discussions, and flexible enough that they can account for any lifestyle

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variations over space and time. They should be open to verification according to recognized scientific approaches, and able to be updated with new data so that comparisons can be made over time.

A typical "finding" reads like this.

"Twenty-six cities containing less than 18 percent of the total population account for more than half of all reported serious crimes against the person and more than 30 percent of all reported serious property crimes. One of every three robberies and nearly one of every five rapes occurs in cities of more than 1 million. The average rate in these cities for most serious crimes is about twice as great (and more often) as in the suburbs or rural areas.... The findings have been remarkably consistent. Burglary, robbery, and serious assaults occur in areas characterized by low income, high population density, physical deterioration, overcrowded and substandard housing, concentrations of ethnic minorities, broken homes, working mothers, etc." (U.S. Department of Health, Education and Welfare, 1969, p.32).

One general assumption has been that QoL declines with increases in urban scale, defined by population size and density (Hoch, 1979). It has been argued that the satisfaction of human needs can no longer be inferred from economic progress or increased overall societal affluence, and that the quality of the environment is an important determinant (Milbrath, 1979, p.33). This has led to the so called places-rated almanacs of the 1980s (Susan L. Cutter, *Rating Places: A Geographer's View on Quality of Life*). Investigators examine environmental indicators, (e.g. pollution level and water quality), social indicators, (e.g. crime rates and safety), economic indicators (e.g. income per capita and housing costs), education indicators (e.g. average level of education and number of educational institutions in an area), psychological or psychosocial well-being (e.g. alcoholism and drug addiction rates), and other such items in measuring QoL. Based on these objectives and quantifiable measures they compare the QoL in one city to that in another (e.g. Boyer and Savageau, *Places Rated Almanac*, 1981, 1983 and 1985).

Many people have pointed out that such city-wide comparisons do not take into account disparities in crime rates, incomes, educational facilities, etc. that exist between neighbourhoods within the cities (Wish, 1986; and Landis and Sawicki, 1988). Moreover, these attempts to explain the city in terms of large-scale demographic variables fail to account for much of the individual and small-

group phenomena that are characteristic of urban life. It has been argued that to understand how individuals and small groups (e.g. families, friendship groups, or neighbours) behave requires analytical techniques which are more appropriate to psychology than to demography (Robinson, 1950).

However, the more serious question is about the usefulness of weighted objective indicators (Landis and Sawicki, 1988; Wish, 1986; and Lee, 1988). Weighting of variables between different years has been found to be entirely arbitrary, thus making the rankings of various cities untrustworthy. Significantly, these "indicators" studies present a bewildering array of arguments and statistics, many of which contradict each other. What seems to be true for some large metropolitan areas does not prove to be true for others. The extremely complex nature of the city makes it difficult to give accurate weights to the variables in question. Correlational studies demonstrate associative rather than causative relationships, which sheds limited light on what makes a place desirable or undesirable. The focus on objective measures has neglected the role of personal happiness and satisfaction in defining quality of life. In fact, several studies have shown poor correlation between objective measures of a condition, and subjective measures of the way that condition is perceived and evaluated by the people involved in it (Schneider, 1975; Newman, 1975; Milbrath, 1979; and Dahmann, 1985). Schneider points out that the problem with the collection of only objective data to measure quality of life is that:

> "There is a strong tendency to use these specific social indicators data to generalize to more global quality of life statements and to equate the observed patterns in objectively measured conditions with actual differences in the life experiences of people... One cannot go beyond objective measures alone to generalize about QoL; they can only be used to describe, not to theorize. We still have not established a connection between QoL as measured by objective indicators, and QoL experienced by individuals." (Schneider, 1975, p. 496)

Objective indicators are defined by "a value system external to the population being studied" (Rogerson et al., 1989, p.1655). Newman (1975) makes the following distinctions:

> "Objective indicators are, for the most part, straightforward definitions of various phenomena. Birth rates, absenteeism from work, and housing type are examples of objective measures. Subjective indicators are designed to assess people's satisfaction

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with various facets of their lives such as their satisfaction with family, work, and house." (p.53)

Subjective indicators seek to tap directly "the quality of life as experienced by people rather than imply a connection between objective social conditions and personal well-being." (Schneider, 1975, p.497)

A number of studies have since emphasized the influence of personal happiness and well being on a person's outlook. In fact some even argue that these are the foremost determinants of the quality of life. For instance, Landis and Sawicki (1988, p. 339) argue that research shows that a person derives his/her sense of satisfaction from personal relations with friends, family, and co-workers, rather than from qualities of the city in which he/she resides and/or works).

Dieter Frick incorporates a psychological element in his definition of QoL. "It is concerned with whether people live well or poorly, does the city help them realize their purposes and desires, or does it thwart them..." (1986, p.45). He sees QoL as a continuum, not as an absolute.

In this subjective approach QoL experience is described "mainly in terms of satisfaction of needs"; that "psychological satisfaction of needs may not correspond very closely to external conditions of life"; that the sense of satisfaction is a highly personal experience "heavily influenced by the individual's past experience and current expectations"; and that satisfaction with the neighbourhood, the community, housing, work, marriage and family life influence one another (Campbell, Converse and Rodgers, 1976, pp.9 and 10). Of course, there is always danger in relying solely on subjective measures.

> "individual perceptions are strongly influenced by people's social and cultural background which in turn gives rise to differences in level of aspiration, demands, customs, consumptions, etc... This is one important explanation of the frequent observation that there is often little correspondence between people's perception of their own well-being and the 'objective' circumstances." (Dale, 1980, p. 504)

Whereas objective indicators might include an investigator's biases and misconceptions, measurements with subjective indicators could also be distorted by the dynamics of investigator-respondent interactions (Rogerson et al., 1989, p.1656).

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Wish (1986) suggests that QoL consists of two things:

"an operational or environmental, and a psychological milieu... they include a situation or condition that is perceived by an area's residents and translated by them into varying degrees of a sense of well-being." (p. 95)

In that way

"A city offers a better quality of life if it contributes to conditions appropriate to a selected population and the subjective attitude toward those conditions held by persons in that population." (p. 94)

In the same spirit, Andrews and Withey (1974) argue that

"Only when both are concurrently measured will it be possible to know how demonstrable changes in living conditions are affecting people's sense of life quality, and conversely, whether changes in people's sense of life quality can be attributed to changes in external conditions." (p.2)

In their conceptual model a persons's overall sense of life quality is understood as a combination of affective responses to two types of life domains - role situations and values (p. 4). Role situations include housing, job, family life, neighbourhood, etc.; and corresponding values include achieving success and getting ahead, safety, fun, etc. The evaluations are primarily psychological as they deal with personal happiness and satisfaction. In this respect housing is one of those role situations to which people attribute value, and the affective response toward these will form part of an individual's overall sense of well-being.

In the housing domain Myers (1987) argues that QoL really means "livability".

"A community's QoL is constructed of the shared characteristics residents experience in places (for example, air and water quality, traffic, or recreational opportunities), and the subjective evaluations residents make of those conditions." (p. 108)

Liveability is a goal that is to be attained through a wide range of social, economic and physical means which have to satisfy the needs of residents within a given group or community. (Pacione, 1990, p. 21). The livability approach is often used for looking at specific housing developments or neighbourhoods, especially when assessing the impact of high density new housing projects, (For example, see Gleb, 1977; Greenberg, 1977; and Francescato, 1977).

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It has, therefore, a political connotation.

> "The goal is to measure quality of life in a manner sensitive to competing major interest group views in the community.... that indicators be selected to cover a politically balanced range of issues." (Myers, 1987, p. 115)

## 1.2    Quality of Life and the Residential Environment

> "The most immediate aspect of the residential environment for the individual and the one with which she or he is most closely identified is the private dwelling unit, be that a single family house, an apartment, or whatever." (Campbell, Converse and Rodgers, 1976, p. 249)

Housing is many things. It is an economic good, a provider or inhibitor of social opportunities, and a source of pride and happiness. Dowell Myers describes the following relationship.

> "Economic development in the community leads to urban growth as employment growth stimulates in-migration, as land development increases, and as traffic intensifies. Increasing demand for land causes price to rise. Commercial rents and housing prices both may rise rapidly, pushing up the cost of living and ultimately forcing up wage levels in the community. The growth in wage rates weakens the economic attraction for new firms... At the same time, QoL also changes. Urban amenities (arts, restaurants, and entertainment, for example) and job opportunities improve with development; other aspects of QoL generally decline." (Myers, 1988, p. 349)

Liu (1976) uses housing as a partial measure of the wealth status of an individual and a community, such as housing types, values, ownership patterns. While investment, liability, source of security, etc. can be measured empirically, it is important not only to know about rents, mortgages, or taxes, but also how people view these in relation to the services they receive (Newman, 1975, p. 54).

Many studies have shown that the social characteristics of housing and the neighbourhood are very important to residents' rating of overall QoL. Shelter quality, maintenance level, general upkeep, and visual appearance have been found to be indicative of social cohesion or disorganization (Schneider, 1975, p. 502), as well as playing a significant role in people's satisfaction with housing (Herting and Guest, 1985, p. 108).

Housing location within a city or neighbourhood such as proximity to friends and relatives and accessibility to services, transportation, or recreational facilities can either help or hinder an individual's ability to

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participate in social activities. (Pacione, 1984, p. 64 and 66) It facilitates or limits the establishment and maintenance of social contacts which are essential QoL measures (Mackensen, 1986).

Tenure type has QoL significance. It is generally assumed that owner occupation indicates affluence, and a higher social status (e.g. Baldassare, 1982, p. 94) While studies on the effects of high density housing on social behaviour have been, to a large extent, inconclusive, the general thinking is that: "urbanization and industrialization produce psychological strains generated in an overcrowded yet compartmentalized existence lacking both privacy and close interpersonal ties." (Carnahan, Gove, and Galle, 1974, p. 63)

On the environmental front, noise, traffic, and air quality levels have been found to play a lesser, though still significant, role in predicting housing satisfaction (Dahmann, 1985; and Herting and Guest, 1985). Open space and personal recreation space facilitate socializing, rest, and relaxation, and are therefore related to the mental and physical health of residents. Likewise, some physical design features have been found to relate to resident well-being. For example, poorly lit entranceways allow intruders to hide easily, and poor differentiation or demarcation of public and private areas makes it difficult to distinguish strangers from residents (Pacione, 1990, p.14). Some designs are monotonous and depressing (Francescato, 1979). The importance of physical design to privacy cannot be overemphasized.

> "Research has consistently shown that residents place great value on visual and auditory privacy, on the opportunities for personalization of the dwelling unit both inside and outside, on variety of shapes in buildings and landscape, on easy access to the ground and to their parked automobiles, on an enclosed piece of ground that one can call one's own, and on the small size of the development." (Francescato, 1979, pp. 111-127)

## 1.3 Environmental Psychology

A guiding principle in environmental psychology is what has been referred to as the *dynamic interchange* between man and his milieu. The traditional conception of a fixed environment to which organisms must adapt or perish is replaced by the ecological view that emphasizes the organism's role in creating

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its own environment. It is the study of human behaviour in their everyday, intact settings, looking at behaviour as it is, with the environment playing an integral role in the process. (Ittelson et al., 1974, p. 5)

Territorial behaviour in animals is instinctive: in human beings it is optional. (Roos, 1968) There are a number of factors influencing personal space norms and behaviours, including: (1) characteristics of the physical environment (e.g. number of occupants, shape of table, available furniture, and arrangement of occupants); (2) characteristics of the individual (e.g. personality traits, age, sex, and feelings); (3) characteristics of the task or relationship between individuals (e.g. cooperation, friendship, conversation); (4) characteristics of the other individual (e.g. leadership, attraction, and stigma) (Leibman, 1970).

The built environment is complex in nature. It is certainly physical. But it is also affective with beauty, orderliness, comfort, etc as an integral part of the design. It must be functional--suitable to the task for which it is designed. It is cognitive--providing a continuum of meanings, or messages, as to how it shall be used and interpreted. It is also social, supplying cues for social behaviour, which help to organize and regulate the activities of groups and individuals.

1.3.1 Theoretical Framework

Ittelson et el. (1974) describes the following characteristics of the environmental psychology approach. The environment frequently operates below the level of awareness. It is when our environment is changed that we become most aware of it because it is at this point that we consciously begin to adapt. For the most part, we take our environment for granted, and although we may be aware of the affect--how it feels to function in a given milieu--the effect of this on our actions can be wholly subliminal. It is only when we analyze our actions (or they are analyzed by others) that we discover underlying reasons for the behaviour (p. 13).

A behaviour setting is bounded in space and time and has a structure which interrelates physical, social, and cultural properties so that it elicits common

or regularized forms of behaviour. It can be a church, a school, hotel terrace, a cocktail lounge, or a playground. It can even be a hotel terrace with its physical properties (arrangement of chairs, small tables, railings, and so on) as well as their implicit purpose (relaxation, conversation, drinking, card playing, and so on) imposing on those entering it an explicit mode of behaviour (p.70-71).

The uses of all behaviour settings and their objects are to a large extent socially and culturally defined -- the intended purposes of the setting, the kind of people who will use it, and what activities and immediate outcomes will occur. There is a social purpose or meaning involving a set of social rules which unifies or integrates into an orderly system what people do, how they do it, with whom they do it, and when and for what intervals of time (p. 71) Therefore the environment may be considered as a "setting event", that is, it sets the conditions for the response to occur. The "appropriateness" of the response is socially determined (p. 345).

Every setting induces feelings, associations, and attitudes in the perceiver that can be described as its ambience. A setting can be exotic, pleasant, gloomy, or restful. Such feelings can be general across many individuals or unique to one person. Any setting by virtue of its people, activities, and physical features induces an atmosphere of its own which is difficult to define but is an integral part of one's perception of the environment. (p.108)

Ittelson et al. (1974, pp. 95-96) list a number of assumptions which are particularly relevant to this study.

1. In relation to any physical setting, human behaviour is enduring and consistent over time and situation.

2. While patterns of general behaviour in response to a setting persist individual behaviour can vary over time and space.

3. The environment is an open system. The boundaries of a setting are defined not only by the setting's physical properties but through its interactive relationship with other physical and social systems.

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4.  Because of the above, environmental organization is dynamic, and a behaviour pattern will be affected by a change in any of its components.

5.  Environments are typically neutral.  We are most aware of their characteristics when change is introduced or when we encounter an unfamiliar setting.

6.  Environments have a natural history of use, and we inherit this history when we participate in them.  Such use need not be congruent with the physical character of a setting; custom may dictate that we keep our voices lowered in church, and raise them at a public meeting.

7.  However open they may be as social systems, environments have physical limits.  These can be described as resistive, supportive, or facilitative. Behaviour in the total environmental context will always be affected by the physical opportunities that exist for expressing a desired behaviour.

Within this approach, the congruence theory suggests that physical settings by themselves do not determine behaviour, but if they are congruent with the purposes and goals of the individuals who occupy the setting, then they provide support for the behaviours necessary to realize these goals and purposes (Michelson, 1970).

It should be noted that behavioral need is not simply one of convenience or comfort.  Too much convenience makes it difficult for us to involve ourselves in an environment in any meaningful way, thus leading to alienation.  To the extent that a physical setting invites us to participate, both complexity and ambiguity are necessary (Rapoport, 1967).  Take the example of social interaction.  The environment may offer options, the people will determine "how these will be used to strike the balance between privacy and communication that seems desirable at any given time" (Itellson et al. 1974, p. 160).  At least three factors are said to be involved here (Proshansky 1971).  First is the amount of time people spend in the area.  If the time is short, as in walking through a lobby or walking down a corridor, interaction is not ensured.  Second is frequency, how often the people use the area.  Third is facilitation.  Is the size of the space adequate for the use intended?  Do seating arrangements promote

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or discourage face-to-face contact?  The focus of this study is the effect of crowding on environmental congruence, or incongruence.


## 1.3.2 Crowding

J.B. Calhoun's article (1962) in *Scientific American* about a series of experiments on overcrowded caged rats caused a sensation.  It showed overcrowding causes (a) poor nest building and high infant mortality, (b) high adult mortality, (c) aggression, (d) homosexuality, and (e) rats who went "berserk". A number of best-sellers followed.  Drawing on animal studies these argued that the innate qualities of human nature were in conflict with modern urban life: Desmond Morris's *The Naked Ape* (1963) and *The Human Zoo* (1967), Konrad Lorenz's *On Aggression* (1966), and Robert Audrey's *The Territorial Imperative* (1966).

It is simplistic and dangerous to draw direct parallels between human affairs and animal studies.  However, there has been a long tradition of social enquiry into crowding.  The following review is based on *Overcrowding in the Household*, Gove and Hughes, 1983.

Herbert Spencer, the sociologist, argued that the highly specialized social organization characteristic of the Western world was a direct consequence of increased population densities, which allowed for a division of labour and a high level of specialization.  For him, the increasing complexity of human society was something intrinsically positive, and he was not concerned with the negative psychological impact that might be a consequence of individuals living in a dense, heterogeneous environment.

Emile Durkheim (1933) regarded an increase both in population density and in the ability of divergent groups to communicate and cooperate as prerequisites for a high level of division of labour.  But he thought that the social ties of individuals in a complex society with conflicting sets of values and high levels of autonomy, social distance, and lack of social ties would lead to relatively high rates of dissatisfaction and anomie.

Robert Park (1915) focused on the psychological effects of ecological separation in individuals' daily lives, the separation that was intrinsic in the

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socially dense, highly compartmentalized roles people have in modern, urban societies. He led a number of studies of the concomitants of life under conditions of large population size and high levels of population density, and found moderate correlations between these and various forms of social pathology such as crime, juvenile delinquency, mental illness, and mortality rates.

Simmel (1957) took a different approach and argued that in an urban society, with its high level of social density, individuals would receive more social stimulation than they could process effectively. They would become socially withdrawn and relatively unconcerned with others and that their interactions with others then would become rational, superficial, and transient.

Combining the "over stimulation" arguments of Simmel with the "segmentation" arguments of Park, Wirth (1938) regarded urban life as a highly differentiated social organization existing in a very limited space and involving extraordinarily numerous social contacts. As a consequence, he felt there was a high level of intrusion and interference that tended to result in conflict, exploitation, friction, frustration, and competition. In such a setting, social relationships would be superficial and transitory and psychological problems would likely develop.

For a time, "city pathology" studies were popular. They traced correlations between urban population density and social and mental pathology in different cities in the world, e.g. Stockholm (Carlestram and Levi, 1971), New York (Srole et al., 1961), Honolulu (Schmitt, 1966); Chicago (Galle et al., 1972), and the 171 cities study (McCarthy et al., 1975). A number of drawbacks with these sociological studies have been identified (Altman, 1978). First, the control for economic, social, and educational factors (especially how these vary with city sizes and rural-urban migration patterns) were either absent or poorly done. Second, the focus on the larger environment had ignored crowding at the microenvironment of the individual, family, or small group. Third, they emphasized long-term problems rather than social processes of everyday life. There was little effort to identify how people coped with crowding.

Epidermologists and urban planners have also examined the problems of

overcrowding, especially at the micro-scale. They have discovered marked positive association between housing and health, poor housing correlating with poor health, better housing with better health (Wilner et al., 1962., p.5). By rigorously matching families rehoused in a housing development with families who remained in the slums, Stuart Chapin (1940), the urban planner, found that being rehoused in a development was not associated with changes in morale or general adjustment, but that it was significantly associated with increased social participation and upward social mobility. These studies demonstrate that housing crowding per se is related to a number of indicators of personal and social well-being.

Theoretical discussions of crowding focus on two interrelated topics: stimulus overload and the regulation of the social environment to procure individual privacy when needed. The locus of enquiry is how people adapt in an urban environment to stimuli overload resulting from crowding (e.g. Miller, 1961; and Milgram, 1970). Typical mechanisms include the deliberate filtering out of stimuli, restricting communication to known persons, or reducing the level of personal involvement. Other investigators who have emphasized stimulus overload include Aiello and Thompson, 1980; Baldassare, 1979; Baum and Valins, 1977; Carey, 1972; Galle et al. 1972; Levi and Anderson, 1975; Manderscheid, 1975; McCarthy and Saegert 1978; Rapoport, 1975; Scholpler and Stokols, 1976; Stockdale and Scholpler, 1978; and Wohlwill, 1974.

Unlike animal studies, human crowding usually refers to the number of persons in a given unit of space in relation to some optimum standard for comfort and normal functioning. As such, the nature of the activity, rather than the number of persons per se, may be the important factor. It is a psychological as well as an objectively-viewed social phenomenon. As a concomitant and consequence of modern life much depends on how a space is organized, for what purposes, and what kinds of activities are involved.

Among social scientists, especially those involved in epidemiological studies, crowding is usually defined by the number of persons per living unit. In the West, the threshold ranges from 1.01 to 1.5 persons per room (Ittelson et

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al., 1974, pp. 148 and 254). Crowding is sometimes distinguished from density which is measured by the number of persons or dwelling units per area of land or per census tract. Congestion refers to the number or magnitude of activities in excess of the capacity of an area or facility. "Dense" environments are not necessarily crowded: a neighbourhood or highrise luxury apartments would have quite adequate living space for its residents.

Gross density, or population per unit of area, can be a composite of several different measures of land use.

$$P/A = (P/R) \ (R/D) \ (D/S) \ (S/N) \ (N/A),$$

where P equals population, A equals area, R equals the number of rooms in the area, D equals the number of dwellings in the area, S equals the number of residential structures in the area, and N equals the area occupied by residences or the net residentail area. Each term has a substantive interpretation: P/R is a measure of room crowding (persons per room), R/D is the average number of rooms per dwelling unit, D/S is the average number of dwelling units per structure, S/N is the number of structures per unit of land area devoted to residential use, and N/A is the proportion of the area used for residentail purposes (Carnahan et al., 1974b). In interpersonal crowding (primarily P/R, may partly include R/D) is vital in trying to understand the effects of crowding because it relates to the primary environment that a person experiences directly and intimately (Galle et al., 1972; Abbott, 1982; and Webb, 1977). Some could even include the area size of the dwelling unit because it affects subjective perception of crowding (Rodgers, 1981).

## 1.3.3 Crowding as an Environmental Psychology Question

Crowding as a psychological phenomenon is only indirectly related to mere numbers or densities, insofar as these help or frustrate the individual in the achievement of some purpose. Crowding in itself may be part of the purpose, or a necessary condition of its achievement. For example, people prefer a packed to a sparsely populated grandstand at athletic events because the presence of others adds to the excitement. The roar of the crowd is part of the fun. In

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some cases crowding leads to depersonalization. The individual loses his sense of identity and the others (in the crowd) take on the characteristics of objects.

On the level of residential dwelling space, crowding has been shown to be a very significant factor in stress, poor health, cynicism about people and organizations, sexual frustration, and feelings of dissatisfaction. In particular, respiratory infections have been associated with "multiple use of toilet and water facilities, inadequate heating or ventilation, inadequate and crowded sleeping arrangements" (Schorr, 1966, p.14). Socially disorganized families have also been traced to inadequate dwelling space, after controlling for cultural and economic variables (Loring, 1955). However some studies indicate that social structure rather than density per se mediates mental health and satisfaction (Fried and Gleicher, 1961; and Gans, 1962).

The following are some salient observations from a comprehensive review of the literature by Gove and Hughes (1983, pp. 22-23). Laboratory and short-term field studies include Aliello et al. (1977, 1979), Aiello and Thompson (1980), Baldassare (1978), Baum et al. (1981), Bharucha-Reid and Kiyak (1982), Cohen and Sherrod (1978), Epstein et al. (1981), Loo (1978), Nicosia et al. (1979), Paulus (1980), Paulus and Matthews (1980), Schmidt and Keeting (1979), Sundstrom (1978), Sundstrom and Altman (1976), and Walden and Forsyth (1981).

1. Very cramped space produces a sense of discomfort and negative mood states.

2. For both brief and prolonged exposures to a constant-sized area, increases in group size are associated with the experience of crowding and discomfort.

3. A sense of crowding is more likely to occur when the subjects work together or otherwise have to interact (as compared to working alone).

4. Performance of complex tasks is poorer in high-density than in low density rooms.

5. A person with a history of intense or frequent social stimulation adjusts better to high-density conditions in experimental situations than does a person with a history of relative isolation.

6.   The more control an individual has over his or her environment, the less the effects of overcrowding.

7.   Males react more to crowded conditions than females.

8.   Members of high-contact cultures (such as Italians and Latin Americans) maintain a closer interaction distance and have higher levels of interaction than members of low-contact cultures such as Anglo-American and Northern European cultures.

9.   American blacks are not members of a high-contact subculture and then tend to maintain more distance than white Americans (Aiello & Thompson, 1980, p. 153)

10.  High levels of crowding in laboratory experiments are associated with (a) physiological stress reactions, as measured by higher skin conductance levels during exposure; (b) reports of greater somatic stress; (c) subject reports of tension; and (d) experimenter observations of stress-induced reactions.

11.  In some experiments there are aftereffects of crowding, such as competitive behaviour and poor task performance.

12.  Some studies have found no effect of crowding, and a few studies have found that crowding enhances an already positive mood (for example, Freedman, 1975).

13.  Some tentative evidence suggests that young children appear to be more reactive to crowding than older children (Loo, 1978).

14.  Two experiments by Rodin (1976) have indicted that children living under severely crowded conditions suffer motivational deficits and consequently are less apt to exert control over situations affecting them when given the opportunity to do so.

Most of the crowding studies have been done on multiple housing units (especially highrise apartments). Some of the important findings relating to compact developments on highrise apartments include the following.

1.   Residents have a much higher rate of infectious disease and neuroses, particularly women. Fanning (1967) speculates that the reason for this

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was the relatively small space available in the apartments as compared to the houses, and that the high rate of neuroses among women in the apartments was due to the fact that they were relatively confined and socially isolated.

2. The vertical location of the dwelling unit is directly related to the level of psychological strain for women but not for men (Gillis, 1977).

3. Perception of crowding correlates significantly with virtually all dependent measures concerning (a) social contact and tenant anonymity, (b) building control, safety, and privacy, (c) informal social relations, and (d) resident satisfaction, detachment, and powerlessness (McCarthy and Saegert, 1978).

4. Multiple dwelling units and apartments are associated with psychiatric impairments among males and loss of privacy among females. Such structures, especially apartments, are associated with discordant marital relations for both husbands and wives. Children of apartment dwellers are somewhat more likely to experience physical illness but this does not translate into poor performance at school (Edwards, et al., 1982).

Survey findings by and large verify those of the laboratory and field studies. Kahn and Perlin's (1967) work in New York shows a very strong relationship between the number of persons per room and the rates of psychiatric treatment, and that crowding is significantly related to a prolonged duration of symptoms and to a delay in seeking admission to the mental-health center.

Baldassare (1979) makes the distinction between household crowding (person(s) per room) and areal density (persons(s) per square acre). His analysis of two national QoL surveys conducted at the Michigan Institute of Social Research (see Campbell et al., 1976) shows that crowding causes dissatisfaction with one's dwelling unit. Although crowding is not traced to mental health it is found to be related to poor marital relationships, poor relationships with children, and reduced involvement in casual relationships. These findings are consistent with Milgrams's (1970) and Stokols's (1978) discussions of the effects of crowding and density. Baldassare's later work

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(1981) emphasizes that social and personal adjustments are available to reduce the adverse effects of crowding. But his findings also indicate heightened complaints (a) among mothers, (b) among persons who are not living with members of the nuclear family, and (c) among families with young children living in particularly crowded conditions.

In Booth and Cowell's (1976) Toronto study both household and neighbourhood crowding are examined. There are four measures: (a) objective neighbourhood crowding, (b) subjective neighbourhood crowding, (c) objective household crowding, and (d) subjective household crowding. (In Booth and Edwards, (1976) persons per room and households per block are used as measures). The focus is physical health and crowding, and contrary to most studies they claim that:

> "perhaps the most important finding of this study, contrary to our expectation before we began the study, is that crowded conditions seldom have any consequences and even when they do their effects are very modest." (Both, 1976, p.1)

But Verbrugge and Taylor's (1980) study in Baltimore, which focuses on psychosocial well-being, and which also treats household and neighbourhood crowding separately, has found that negative effects of density are most salient at the household level, although persons with adaptive skills are not as seriously affected. Positive effects of density are found primarily at the street and neighbourhood levels.

A more recent and definitive study by Gove and Hughes (1983) in Chicago questions the Booth and Cowell findings which they think are distorted by the homogeneity of the sample (80% has blue-collar occupation and 23% completed high school). They also explored the effect of household crowding on social demands and lack of privacy, focusing on subjective experience of crowding as separate from a variety of measures of mental health. Of particular interest to us is their findings that the effects of crowding, as measured by persons per room, on such things as poor mental health, poor social relationships in the home, and poor physical health are all strongly related to excessive social demands and lack of privacy.

Privacy seems to be one of the most important dimension in the effects of crowding. Westin (1967) defines privacy as:

> ... the claim of individuals, groups or institutions to determine
> for themselves when, how and to what extent information about
> themselves is communicated to others. Viewed in terms of the
> relation of the individual to social participation, privacy is the
> voluntary and temporary withdrawal of a person from the general
> society through physical or psychological means, either in a state
> of solitude or small-group intimacy or, when among larger groups, in
> a condition of anonymity or reserve." (p.7)

Of course, there are both the "community of the eye" and "community of the ear."
Proximity of the houses and poor insulation breaks down the sound barrier, making
privacy difficult.

Privacy and crowding are not necessarily direct opposites. Privacy has to
do with an individual's freedom to choose what he/she will communicate about
himself/herself and to whom he/she will communicate it in a given circumstance
(Proshansky et al., 1970, pp. 173-183). Therefore the conditions under which one
experiences this freedom to choose vary widely with situation and purpose.
Physical isolation from others does not always produce a contrasting sense of
privacy. For instance, Smith (1968) found that there was less "neighbouring" in
a remote Arctic community during winter than would have been expected. People
did not get deeply involved with one another, and there were more visiting
between more remote persons rather than close neighbours. There seems to be some
connection between relative isolation and privacy.

There are very sharp cultural variations in how social interaction and
privacy are regulated (Altman, 1975; Baldassare and Feller, 1975; Gregor, 1977;
Hall, 1966; Mitchell, 1975; and Morgan, 1981). But it is perhaps fair to say
that crowding would be experienced in most cultures by the persons who experience
the most demands and have the least privacy.

1.3.4 Mitigation of Crowding Effects

It has been argued that the adverse effects of residential crowding can be
mitigated through design solutions such as landscaping and building orientation,
which can help to increase privacy levels, as well as deter antisocial
activities.

The theoretical underpinning of any design mitigation is "congruence" or
the ways in which the man/environment interface is kept in equilibrium (Studer,

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1970).  Human needs continually change, as do environmental stimuli.  Design

helps to maintain this behaviour-contingent physical system in equilibrium

through the proper environmental supports.  When equilibrium breaks down, it is

often possible to reestablish it by "restructuring and/or relineating certain

territorial boundaries..." (p.120)  The challenge to environmental design is the

continually shifting and changing nature of behaviour.

The physical attributes of environments can modify social behaviour over

the longer term.   For example, urban renewal and highway construction have

fractured and fragmented delicate social networks (Gans, 1962; Fellman and

Brandt, 1970 and 1971; and Wilson, 1967).  Even the pub culture of working-class

residents of London who were relocated in new housing estates outside the city

underwent marked changes (Young and Willmott, 1957).  But these effects must be

interpreted in the light of the sociocultural characteristics of the users.  It

has been demonstrated quite convincingly that suburban housing by itself (even

when it is coupled with improved economic status) does not transform a non-

middle-class person into a homogenized middle-class suburbanite (Berger, 1960).

Obviously, the house is "not just a structure [but] an institution... created for

a complex set of purposes...   If provision of shelter is the passive function

of the house, then its positive purpose is the creation of an environment best

suited to the way of life of a people--in other words, a social unit of space."

(Rapoport, 1969, p.46)  Design is important, but sociocultural needs determine

how an environment will be handled.

No doubt, the physical environment makes possible or impossible--efficient

or inefficient--certain patterns of behaviour, which are not random or

probabilistic, but highly predictable for concrete settings, such as the

laboratory and music room in a school.  But settings do not determine, but rather

are said to be "congruent with" the kinds of people who inhabit them (Michelson

1970).   For example, retirement communities, because of the provision and

arrangement of facilities and services, are congruent with the kind of social

relationships and physical supports that the inhabitants in such communities

want.  This idea applies to the sense of existing environments as well, where

even the most archaic building can offer interesting options. People have moved into old Victorian houses or homestead farmhouses which are congruent to their own life styles. Therefore, congruence is really a question of whether an environment is operating in conjunction or disjunction with the values and needs which people are trying to realize in it.

The greatest effect of crowding is lack of privacy. Design plays a crucial role, whether on the level of the individual dwelling, the neighbourhood, or the entire city. Many contemporary houses lack privacy because of a lack of partitions. Tenement blocks compares unfavourably to quiet residential streets. Many large office spaces are not designed to furnish privacy, where one is always in the presence of other employees, including the supervisors.

Good fences do make good neighbours. Social interaction is more easily achieved when people's social needs are balanced by the sense of individual autonomy that comes with privacy. Ambiguous spaces, which are neither public nor private, tend to mitigate against interaction, since one is less able to control the interaction on one's own terms.

Oscar Newman (1972), in his study of social behaviour in public housing, concludes that much of the success or failure in public housing especially when concerning crime and vandalism, can be traced to the design of the buildings, site layout, and the orientation of the project to the surrounding community. After controlling for densities and types of tenants, lowrise projects show greater tenant satisfaction. Newman attributes four reasons for these differences: territoriality, natural surveillance, image, and milieu. Lowrise tenants have a greater territorial sense, essentially because they are adjacent to one another rather than "piled up." People are more likely to know their neighbours and to exercise a proprietary attitude toward their living space. Surveillance is achieved through easy visibility of all sections of the project. Lobbies, blind elevators, long corridors, enclosed firestairs, and rooftops give easy access to intruders whose actions go unobserved. The image of the low - to midrise project creates a better response on the part of tenants to the physical ordering of their lives. The more humanly scaled developments convey a sense

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(often symbolic rather than actual) that one's environment can be engaged in some meaningful way. The milieu of the project is its total setting and its relationship to the neighbourhood of which it is a part. Fenced-off developments in unsympathetic areas create visible segregation.

Design is important in promoting social interaction. The cul-de-sac arrangement is likely to bring the residents of a block somewhat closer together if for no other reason than that it better defines the boundaries of their immediate living area. Cluster housing provides common open space for residents to develop a minicommunity within the larger area. Even the location of front doors is an important factor in neighbour-to-neighbour contact. But sometimes setting that are supposed to encourage interaction may fail to provide the proper facilities and spaces. For instance, a highrise urban school, with its premium on space, often offers little social areas for casual encounter that contribute to the student's intellectual and social development.

Then, there is the "sonic" environment. A city provides both sonic distress (air hammers, screeching brakes, auto horns) and sonic delight (boat whistles, splashing fountains, church bells) (Southworth, 1969). In areas which are visually monotonous, informative sounds can be used to heighten their distinctiveness. In more commercial areas, sonic signs could take the place of visual signs. Those districts which do not have strong visual articulation might be given an identity through sound, while already well-defined areas could be reinforced by congruent sonic information. Symbolic sounds can be used to inform pedestrians of approaching buses, or even changes in the weather. Street criers would make public announcements; animated sculptures in parks and squares would "respond" when people walked past them; and in visually ugly areas specially constructed floor materials would rumble, squish, pop, or squeak to provide variety. Sonic design is one way of making the city more varied and interesting, and to that extent, more human.

Humans can and do adapt to "dissonant" or dysfunctioning environments, but there are limits to these adaptive powers, and adaptation itself may be made at the cost of physical and mental stress or failure to realize defined goals. A

well-designed environment should itself be "adaptive" to the behaviours it supports.

Psychologists are often concerned less with the immediate effects of stress than its hidden or long range consequences. There is evidence that much of modern man's mental and emotional maladjustments, his feelings of alienation, even his physical disorders, are the aftereffects of his adaptation to stress.

> "There are clearly healthy and unhealthy buildings in the medical sense, in the psychological sense and in the sociological sense. Our ability to adapt is probably why bad elements of architecture are so widely tolerated. After a while they cease to be noticed by those who are continuously exposed to them. This does not mean, however, that adaptation is without cost to humans. It requires energy to move to a new level of adaptation and it requires energy to stay there. Environmental factors that do not conform to some modal value on each of the perceptual dimensions are 'expensive' to live with; we pay for 'tuning them out' by using more energy or by being less effective in our work or play." (Wheeler, 1967, p.6)

**SECTION 2   METHODOLOGY IN ENVIRONMENTAL PSYCHOLOGY**

2.   METHODOLOGY IN ENVIRONMENTAL PSYCHOLOGY

This section is organized as follows.

2.1  Research approaches

2.2  Variables

2.3  Controls


Central to the environmental psychology approach is the role of perception, which is a crucial element in the man/environment interchange (Ittelson et al., 1974, p.6). Each individual perceives or experiences the world in individual and unique ways; and these perceptions and experiences guide his/her actions and determines his/her satisfactions. They way we make sense of the inchoate environment around us has a number of facets:  *stimuli* that affect perception; the *spatial* properties of the environment that influence patterns of behaviour; the "real world" *contingencies* to which a person must fashion a congruent relationship; and the *social relationships* that are facilitated by one's use of space. In this way, environment is a factor in personal *growth, development,* and *learning.* Our personality, life style, stage in life cycle, ethnic background, religious faith, past experience, future expectations or simply our passing mood, influence our "perception" of the objective world. This focus on perception and man/environment interchange makes environmental psychology a particularly appropriate approach in examining the "subjective" dimension of quality of life as it relates to housing.


2.1  Research Approaches

Broadly speaking, there are two general directions in environmental psychology besides experimental research. Holistic research focuses on the relationships which exist among environmental variables as part of a complex situation or "total system." It is qualitative and descriptive, seeking the underlying unifying themes of the situation (Weiss, 1968, p.343). It can be highly factual in the data it generates, or highly impressionistic or both. A familiar example is the anthropologist's field report; although many facts are

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gathered, they do not necessarily "speak for themselves." Variables may be identified and correlated, but the anthropologist's general observations about the culture are equally important. Margaret Mead's *Coming of Age in Samoa* (1929) is a participant observation; Herbert Gans' *The Urban Villagers* (1962), a description of life in Boston's West End, is based chiefly on the author's close personal contact with the people he was studying; and Lloyd Warner's *Yankee City* (1963) employs research teams, questionnaires, and other survey techniques.

Survey research uses questionnaires, interviews, tests, and simulations to find out how people think and feel about certain specific issues that can be easily categorized. It explores attitudes rather than behaviour. It is also useful in evaluating an individual's reactions to a situation or an environment. It also uses existing data such as census, government statistics, and medical records, and tries to correlate physical, social and psychological data in order to find associations that may suggest a causal relationship.

The present study is primarily a survey research which is exploratory in nature. The residential environment is very complex and there are a number of interrelated systems: physical, economic, psychological, social, financial, demographic, and political. The modest aim of this study is to understand, in a descriptive way, the salient features in people's perception about crowding in their residential environment, which affect their subjective measures of quality of life. This is no more than an exploration of a series of illustrative "profiles" of attitudes and expectations under different crowding conditions.

Stokols (1975 and 1978) has developed a typology and set of hypotheses that serve as a guide to the conditions under which crowding is apt to be experienced as a problem or irritance. His typology has two dimensions that delineate the determinants of crowding intensity and persistence: (a) neutral and personal thwarting and (b) primary and secondary environments.

> "The thwarting dimension pertains to the nature of the interferences imposed by proximity to others. Neutral thwartings are essentially unintended annoyances stemming from either the social or nonsocial environment, whereas personal thwartings are those interferences intentionally imposed on an individual by other persons." (1978, p. 237)

Neutral crowding is characteristically attributed to physical dimensions

of the environment, whereas personal crowding is attributed to the presence and behaviour of other people.

> "Primary environments are those in which an individual spends much time, relates to others on a personal basis and engages in a wide range of personally important activities. Examples of primary settings are residential, classroom and work environments. Secondary environments are those in which one's encounters with others are relatively transitory, anonymous, and inconsequential. Examples of these settings are transportation, recreation and commercial areas." (1978, p.235)

> "Social interferences arising from high density or proximity to others will be more disruptive and frustrating in primary rather than secondary environments and consequently, crowding experiences will be more intense and persistent in the former settings than in the latter." (1978 p.237)

Our focus is the microenvironment, or primary environment of the home and neighbourhood. In QoL studies the typical distinction made about housing type is the highrise versus the lowrise, where resident satisfaction is measured by recreational facilities, parking arrangements, laundry facilities, other residents in the project, people living in the near vicinity (usually 2-3 blocks), access to the community, privacy from neighbours and others in the family, and protection from crime and vandalism (Francescato, 1977, p. 163). In this respect Gove and Hughes (1983, p. 219) have found that among apartment dwellers the type of apartment, lowrise or highrise, does not seem to affect how the residents respond to household (home) crowding.

Then, there are neighbours' reactions to highrise (high density) developments. These are typically the blocking of sunlight, closing down of views and openness, overlooking of neighbouring buildings, and subsequent reduction of privacy and impair neighbourhood livability (Gelb, 1977, p. 132). Our study limits the crowding effects to the residents themselves.

The limitation of past studies is that their focus is apartment living, usually in public housing projects. This is an understandable bias as these studies are concerned mostly about living conditions in "crowded" housing situations, and apartments are obvious candidates for investigation. This study, on the other hand, examines a wider range of housing crowding (from single-family houses to highrise apartments) in an attempt to gain insights about the relationship between home crowding and neighbourhood crowding (density) and

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people's attitudes and expectations under different combinations of home and neighbourhood crowding conditions.

In this regard, Gove and Hughes' (1983, p. 229) findings are interesting. The effects of household crowding are found to be slightly less in single units than in adjacent units (duplex, rowhouse, or triplex) and slightly less in adjacent units than apartments. These, they suggest, may be explained by the different extents by which a resident is disturbed by the noise of the neighbours and the different degrees to which a resident has private external space. These we intend to test in our study.

With respect to neighbourhood type the literature indicates two different directions. Herbert Gans (1962) views the city not as an undifferentiated mass of streets and buildings but a collection of urban villages. Through one's neighbourhood, one circumscribes the metropolis to manageable proportions. This is the concept of "home ground" which dominates the lives of the working-class poor (Fried and Gleicher, 1961). Because neighbourhoods are the focus of social relationships, which for higher socioeconomic groups are selectively developed throughout the city as a whole, a sense of "local spatial identity" is fostered. Physical space around the home becomes a "territorial" space to which one belongs and is emotionally committed. Reynolds (1961) finds that twelve city blocks is the maximum distance.

However, as neighbourhoods mature, the selective interests of the individual play an increasingly important role in his choice of social contacts. To this might be added ethnic and religious factors (Lauman, 1973). Gans (1967) notes that the "proximity principle" is usually reinforced by the homogeneity and youthfulness of the population and that for sustained social interaction, social compatibility is necessary. Thus proximity became less important as a factor in friendship formation as the community grew older. On the other hand, Lee (1968) has found no relationships between housing density and local friendships. "The level of each one's social interaction is presumably set by herself rather than by the density or proximity of potential friends." (p.359) Homogeneous neighbourhoods, which he calls the "our sort" locality, can provide many

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acquaintances but few friends and a low level of commitment to the neighbourhood. A sense of belonging does not imply participation. Residents tend to "stick to themselves." Lee argues that accurate description of such localities would be not "people like us" but rather "people who live in houses like ours."

Although there does not seem to be agreement in the literature about the effect of neighbourhood types or social ties on the mental well-being of the residents, it is clear that the significance of "homogeneity" of a neighbourhood should be tested. In this study neighbourhood types are defined according to degrees of homogeneity in housing and land use. A neighbourhood can be predominantly of a particular housing and land use type, or it can have mixed housing and land uses. In this way we can better evaluate how crowding affects QoL measures under a wider array and more realistic circumstances.

Within the home, the amount of space available, the state of repair, sanitary facilities, and the like, affect the ease with which an occupant is able to carry on housekeeping chores, raise children, entertain, and provide the privacy needed for work or simply for occasional periods of seclusion. Inadequacy of space causes the fatigue, irritability, and passivity. On the other hand, too many appliances to look after and bathrooms to scrub can be as fatigue-producing as none at all. The layout of the space may be more important to its efficient use than the number of square feet. Also it is found that having private external space tends to minimize the detrimental effects of household crowding.

In environmental psychology, home (household) crowding has typically been operationalized by the measure persons-per-room and conceptualized as the experience of an excess of social demands and a lack of privacy. But, according to Gove and Hughes (1983, p. 48) who also use this measure in their Chicago study, this is an oversimplification and that there are a number of factors other than persons per room which affect the subjective experience of crowding. The factors include culture, the power of the individuals in the households, the household composition, the role obligations of the persons in the household, and the particular interaction that is going on at the time. Furthermore, there will

be instances where the effects of objective crowding as measured by persons per room will not be mediated primarily by the subjective experience of crowding. Such instances would often include the actual ability to use space.

Of course, the number of occupants in the house, their age, status, and personal habits, including their psychological characteristics, also guide the use and possession of spaces (i.e. territorial behaviour including the hierarchical use of space (Ittelson et al., 1974, p.145). Much of the perception of crowding and its effects will also depend on past experiences and cultural differences.

For the purpose of this study person-per-room, as well as the underlying measures of household size and number of rooms, will be used to define home (household) crowding. At the neighbourhood level population and dwellings per hectare will be used to define its density. Although Gove and Hughes (1983), in their Chicago study, found negligible relationship between such a density measure and various pathologies, it is used by most QoL studies and deserves to be tested again. As much as the sample size allows, the demographic, social and economic variables of the respondents, and the physical and occupancy variables of the environments are controlled.

The format and content of the survey are drawn from Craik's (1970) "basic research paradigm" of environmental psychology. The responses sought are attitudinal and preferential: The respondent's reaction, positively or negatively, to certain features of the environment on the basis of previously acquired attitudes, and the respondent's preferences are a measure of the intensity of his/her attitudes.

This study is more concerned with the individual's own perceptual and cognitive response to an environment than with others' interpretation of that response. There are both advantages and disadvantages to this approach. On the positive side, behaviour is uninfluenced - hence less in danger of contamination - by the research situation. On the negative side, it is not possible to predict what might happen if certain changes are introduced into the existing situation.

## 2.2 <u>Variables</u>

In the environmental psychology approach six psychological linkages between the properties of the environment and the responses of its inhabitants are commonly examined (Ittelson et al., 1974, pp. 246-247).

1.    Stress

Before the urban resident can realize his potentialities for psychological and social development, he must remove or control the noxious, stressful stimulus information stemming from his environment, which is contaminated by noise, polluted air, and the multitude of congestions occasioned by the presence of "too many people." This environment demands too much psychological energy in simply learning to cope with the multiple and often conflicting stimuli which the urban resident encounters (Milgram, 1970; and Meier, 1962). An interesting corollary is that the psychologically damaging effects of crowding result not so much from stress but from the avoidance of stress. Such "turning off" fosters a withdrawal from normal social behaviour and making intimate contact seem less necessary (Alexander, 1966, p. 32).

2.    Orientation and Ease of Movement

This has to do with difficulties in learning to find one's way through the city. In a limited sense the readability of the city is an essential aspect of the urban resident's adaption. What is at stake here is not only transportation systems but the way in which the things required by city dwellers can be knowable or known. Ease of movement is as much psychological as physical.

3.    Sociability and Community

The urban environment is a complex entity organized to achieve specific goals. This entity is a composite of neighbourhoods, districts and areas which fit together into a variegated "social mosaic" differentiated by function, physical character, and social structure. The assumption is that people are concerned with the intangibles which are often associated with the term community. Many of the satisfactions identified with urban life are strongly linked to one's perception and use of the social and physical spaces provided by his neighbourhood or district. Environmental psychology is concerned with the

variables which create community and the balance that must be struck between socialization and privacy necessary to a satisfying life of the city.

4.    Cultural-recreational Opportunities

The satisfactions derived from these amenities is measured not by what exists, but by the perception of what is available. Education, income, and social class are factors that contribute to this perception and, ultimately, to the experienced benefits. The ways in which the physical environment, including transportation, contributes to the quality of these experiences is also considered.

5.    Enrichment of Experience

Urban living has an ambience, a sentient environment of colours, textures, and sights. In the physical sense, vitality, novelty, and movement; variegated spatial and buildings forms; a rich assortment of sounds and smells; contrasting architectural styles; a vivifying street life--all combine to make this aspect of the urban experience a stimulating one. Perceptionally, the urban environment is also a context for learning (Carr and Lynch, 1968).

6.    The Decision Process

Every urban resident, directly or indirectly, experiences the power struggles that centre on how the city should be governed. In the environmental sense, these struggles may take the forms of community control, provision of local services, zoning regulations, urban renewal, noise levels, safe streets, or transportation routes.

There are some general observations about the effects of the size of a settlement, with implied density, on QoL measures. As the size of a settlement increases, the positive elements such as arts and culture, educational and recreational facilities, medical services, and accessibility and choice of consumer goods are said to be offset by the higher cost of living, increased crime rate, higher pollution levels, and increased social pressures (Myers, 1988, p. 349).

> "Conventional wisdom tells us that the quality of residential
> environments declines with increasing size of settlements. The
> perception that large settlements and inner city neighbourhoods
> provide residential environments that are less than desirable is

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both longstanding and widespread (research has consistently concluded that). Americans prefer small settlements to larger ones and suburban neighbourhoods to inner city ones." (Dahmann, 1985, p. 511)

At the level of the microenvironment of the home and neighbourhood the literature of QoL and environmental psychology offers an array of variables that can be used to examine the effect of crowding. Our focus is subjective perception. Therefore, both satisfaction (attitudinal) measures with expectation (preferential) measures will be used in an attempt to cross check people's environmental values and their perceptions. This is particularly relevant in light of an insight by Ittelson et al. (1974, p. 267) that dissatisfaction (or satisfaction) may be perceived in terms of previous expectations rather than present discomfort (or comfort).

Some dependent variables such as decision to move or stay, amount and rate of social interaction, home maintenance activities, complaints to management, or resistance to being forced to move can be related to one another and to the sociophysical characteristics of a study area. These can give a sense of the intensity of feelings as well as an indication of the strength of the link between perception, attitude and actual behaviour.

It is well established that the quality of housing can have an important influence in three areas: (1) the occupant's self-perception, or self-image; (2) subjective stress; and (3) physical health (Schorr, 1966; and Wilner et al., 1962). QoL literature talks about five components in the evaluation of dwelling unit quality (Pacione, 1984, p. 66).

(1)    Internal design (e.g. size and layout of rooms, and number of rooms).

(2)    Building standard uses (e.g. efficiency of heating system, cost of heating home, and standard of building and internal repair).

(3)    Health and comfort (e.g. view from living room, and amount of sunlight received).

(4)    Privacy (e.g. visual and audio privacy from neighbours, amount of noise from neighbours, amount of noise from outside, and amount of space for own use).

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(5)   External appearance.

There are twelve components to the evaluation of <u>neighbourhood</u> quality (Pacione, 1984, p. 66).

(1)   Service provision and government responsiveness (e.g. amount of smoke and dust in air, fire service availability, tidiness of streets and surrounding areas, way complaints are attended to, availability of health services, and garbage collection service).

(2)   Traffic (e.g. volume, noise and risk of accident).

(3)   Availability of local services time (e.g. distance to local shops, goods and services available locally, distance to places of worship, and ease of reaching city centre shops).

(4)   Accessibility (e.g. distance to friends and relatives, distance to entertainments, journey time to work, and public transport service).

(5)   Safe public open space (e.g. availability of parks and play areas, safe area for child play and car parking facilities, and standard of street lighting).

(6)   Physical appearance.

(7)   Greeness (e.g. amount of trees and greenery nearby).

(8)   Potency (e.g. amount of influence on local affairs, access to open countryside, nuisance from roving dogs, and the reputation of the area).

(9)   Freedom from antisocial activity (e.g. feelings about neighbours, and the feeling of security of home from theft and vandalism).

(10)  Environmental tidiness (e.g. standard of maintenance of communal areas and garbage collection service).

(11)  Personal safety (e.g. level of vandalism and feelings about walking alone at night).

(12)  School provision (e.g. distance to school and standard of local schools).

Other specific QoL indicators which are considered appropriate measures of "physical congestion and external overcrowding" include: design and outside

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appearance of the dwelling, noise in the area, reputation of the area, privacy from people in the area, type of house, design and outside appearance, physical condition and appearance of the neighbourhood, type of people living in the neighbourhood, relationships with co-tenants or residents, and physical condition of the building compared with other houses (Onibokun, 1973, p. 469). To these one can add crime rate (Francescato, 1979), pollution, traffic and street cleanliness (Earickson and Billick, 1988, p. 5), and mental health (Carnahan, Gove, and Galle, 1974, p. 71).

Noise, apparently, is a very important crowding effect: the automobile horn, construction work, wailing sirens, factory whistles, all contribute to the characteristic din of urban life and are considered the most common urban "stressor" (Ittelson et al., 1974, p. 265). The intensity, frequency, and intermittency of noise all contribute to its perceived effects. The loss of sleep from ordinary street noises may be more stressful than an occasional sonic boom, the effects of which may go deeper than a resultant physical fatigue.

There is considerable conjecture that it contributes to the tension of modern life. Experimental research suggests that high-density noise adversely affects the working of complex tasks. There is also a suggestion that the effect of noise is long-term and subtle.

A by-product of noise is its effect on social relations. Appleyard and Lintell (1972) have found that on a "heavy street," where traffic was dense and noise levels high, there was little social interaction among neighbours, an absence of "peace and seclusion," very little local responsibility for the appearance of the street, and the feeling of living in a restricted environment. On a "light" street, which was relatively quiet, families with children tend to move onto the street and to remain longer. There is a sense of pride in how the street looked inhabitants formed a lively, close-knit community, had twice as many friends, and three times as many acquaintances as the people on the "heavy" street. Instead of withdrawal there was interaction. Residents also experienced a much richer and more discriminating awareness of their environment.

When it comes to neighbourhood quality one of the greatest concern (or

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stress), though not necessarily related to crowding, is safety. Kasl and Harburg (1972) have found that people will tolerate a number of inadequacies in their neighbourhood if they feel it is at least safe. In their study of Detroit neighbourhoods, familiarity with events of crime and violence was the most frequently cited reason for disliking them.

It has been argued quite convincingly that symbolic association, whether one owns or rents the property, its value, the kinds of neighbour one has, and the friendship ties that have been developed in the area may outweigh physical inconveniences or even hardships (Ittelson et al., 1974, p. 268). Also, physical variables such as building setback, land coverage, proximity to adjacent structures, and land-use character are seen as less relevant to residents than the general upkeep of the neighbourhood, the noise level, and degree of separation from neighbours (Lansing and Marans, 1969).

While availability and accessibility to neighbourhood facilities and services have been considered important ingredients to the quality of life in general, their significance to social interaction is less clear. Gutman (1966) argues,

> "...it does not follow that if community facilities are lacking... the residential group will not be cohesive. On the contrary, the literature indicates that when dwelling units are far from grocery stores, then their occupants are more likely to borrow food and kitchen supplies from each other; while the absence of a nursery school near the site leads the residents to turn to neighbors for help in .caring of infants and young children." (p. 111)

But Madge (1950) notes that housing estates which are isolated from shopping and recreational facilities, have had the effect of "... a driving back of attachment to the house itself and its furniture, with a minimum attachment to the locality. Interest and attachment is concentrated on the inside of the house rather than the outside." (p. 191)

Gove and Hughes (1983, p.212) have found that the relationship between household crowding and lack of privacy is the strongest in bad neighbourhoods, followed by good neighbourhoods, with fair neighbourhoods having the weakest relationship. More interestingly, a pleasant neighbourhood tends to minimize the effects of household crowding, while an undesirable neighbourhood tends to

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exacerbate the effects of crowding. They attribute these findings to a feeling

of confinement or lack of confinement to one's home. If individuals experience

their neighbourhood as desirable then they would tend to spend some leisure time

there, going for walks, visiting with neighbours, and generally relaxing. In

contrast, if individuals experience their neighbourhood as an unattractive and

undesirable place they would not choose to spend free time in the neighbourhood

and would tend to feel confined to their households, and this might exacerbate

the effects of overcrowding in the home.

The relationship between neighbourhood desirability and mental health is

less clear. Kasl and Harburg (1975) argue that neighbourhood characteristics,

objective and perceived, are only weakly related to the individual's

psychological state. But this is challenged by Hughes et al. (1983) on

methodological grounds, who find all the indexes of mental health, except

positive effect, are significantly related to negative perceptions of one's

neighbourhood. They conclude that being in an undesirable neighbourhood (or at

least one that is perceived as undesirable) is significantly related to being in

poor mental health but is not related to poor social relationships in the home.


## 2.3  Controls

The literature talks about a number of controls that will affect study

findings. Our choice is constrained by data availability.

Length of residence is significant.

"... [A] person who is more familiar with his environment is more aware of
the way in which the environment works. He is not overloaded with
stimuli. He may have a greater stake in keeping that environment safe.
He is in control. Thus he is more likely to help." (Latane and Darley,
1970, p. 119)

As the stimuli become familiar, we deal with them less consciously and more

effortlessly. Psychologists term this adaptive process habituation. The city

dweller of long standing can seemingly ignore the noise, dirt, crowding, and

frenetic pace that visitors find unpleasant and unnerving. "The most remarkable

feature of current urban existence is not how stressful the city has become, but

how unaffected day-to-day functioning of the city dweller is despite the

indignities heaped upon him." (Glass and Singer, 1972, p.9)

Ownership contributes to one's sense of personal evaluation. The house is a symbolic extension of oneself; as such, its character (slum or mansion) may be the result of personal qualities (inadequacy or skill) as well as a reinforcer of these qualities. (Ittelson et al., 1974, p. 268)

The nature of the household composition and one's position in the household plays a very significant role in determining the level of crowding one experiences and the degree one is reactive to that level of crowding. With regard to household composition, the crucial variables appear to be one's power (or lack of power) with respect to others in the household and the extent to which one has role obligations to others. The less power one has and the greater one's role obligations to others, the greater the impact of crowding. One's power and one's obligations appear to be a consequence of both the nature of the household composition and one's particular social position in the household (Gove and Hughes, 1983, p. xvii).

It is well accepted that housing attitudes are influenced by stage in lifecycle, socioeconomic status, and previous housing experiences (Newman, 1977, p. 184) In particular, there are marked differences in attitudes toward one's dwelling according to socioeconomic class (Rossi, 1955). In general, the lower socioeconomic groups are more subjectively satisfied than objective housing condition indicators (number of rooms, degree of dilapidation, and so on) would suggest should be the case. Moreover, the physical dilapidation of low-income neighbourhoods does not always correlate with "social dilapidation."

Gove and Hughes' study (1983, p. 225) demonstrates the importance of culture in determining the impact of crowding. However, it leaves unanswered the precise nature of the mechanisms by which culture affects the way in which crowding has an impact on individuals. In their study culture appears to play a role in regulating the levels of privacy and demands one experiences and one's reactions to them, but they also note that some culture appear to be more concerned with privacy (blacks) while others are more concerned with demands (Hispanics). Males react more to crowded conditions than females; and members

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of high contact cultures such as Italians and Latin Americans maintain a closer interpersonal distance and have higher levels of interaction than members of low-contact cultures such as Anglo-Americans and Northern Europeans.

**SECTION 3   IMPLEMENTATION**

3.    IMPLEMENTATION

This section is organized as follows.

3.1   Research instruments

3.2   Site selection

3.3   Sampling

3.4   Execution

3.5   Analytic procedures

3.6   Caveats


3.1   Research Instruments

3.1.1 Questionnaire Survey

Based on the literature review, especially that on the environmental psychological effects of crowding, a questionnaire survey instrument was developed (Appendix A).  The content and format were based on Craik's (1970) "basic research paradigm" of environmental psychology (see Section 2.1).  In particular, it drew on the sets of dwelling and neighbourhood attributes suggested by Pacine (1984), Campbell, Converse and Rodgers (1971), and the Institute for Behavioural Research, York University (1984).  The responses sought were attitudinal and preferential.  It had three components (i) resident satisfaction, (ii) resident expectations, and (iii) explanatory variables.

(i)   Resident satisfaction

Resident satisfaction of different housing attributes was divided into three groups based on suggestions of the literature.  The first group was "dwelling conditions" (Q.3) which measured the effects of crowding at the level of the dwelling unit.  It covered both the interior aspect (Q.3.1-Q.3.8) and exterior aspect (Q.3.9-Q.3.12).  Privacy was measured separately (Q.3.7).  The second group was "neighbourhood quality" (Q.4.1-Q.4.11), which measured the effects of crowding at the neighbourhood level.  It was further divided into two parts:  crowding – specific (Q.4.6-Q.4.11, excluding Q.4.9) and noncrowding specific (Q.4.1-Q.4.4).  The third group was "neighbourhood facilities", which  had two different

measures - quality (Q.4.12-Q.4.22) and accessibility (Q.5.1-Q.5.7) A five-point scale was used to calibrate the responses - from "excellent" to "poor".

(ii) Resident Expectations

This set of variables measured the kinds and levels of expectation that residents have toward their dwelling condition, neighbourhood quality, and neighbourhood services. As Ittelson et al. (1974) have argued, satisfaction or dissatisfaction may be perceived in terms of previous expectations rather than present comfort or discomfort. Our questionnaire asked the respondents to rate the importance of housing attributes after they had expressed their satisfaction levels regarding these. This study was perhaps the first which tested specifically the link between satisfaction and expectation. The intention was to have a one-to-one match between the satisfaction and expectation measures. But it soon became obvious that there would have to be overlaps. For instance, the expectations measure "quiet streets" (Q.7.15) could be linked to the satisfaction measure "traffic noise" (Q.4.6), as well as "street noise" (Q.4.7). Also, some expectation measures were general rather than specific. Variables such as "to own the land" (Q.6.4) and "to have open space around the home" (Q.6.15) could be linked to a number of satisfaction measures. In the end, the expectation measures were grouped as follows: dwelling conditions (Q.6.5, and Q.6.8-Q.6.17), neighbourhood quality (Q.7.11-Q.7.17, and Q.20), neighbourhood facilities (Q.7.1-Q.7.10), neighbouring (Q.7.18-Q.7.26), and ownership preference (Q.6.1-Q.6.4, Q.6.6, and Q.6.7). The responses were calibrated by a five-point scale from "extremely important" to "not important".

(iii) Parametric Variables

Based on the literature a number of these variables were included: residence length and occupancy (Q.1), tenure (Q.2.1), shelter and neighbourhood characteristics (Q.2.2-Q.2.7), modes of transport (Q.8), housing cost (Q.9), relocation possibility (Q.10), tenure preference

(Q.11), demographic, cultural and economic background (Q.13). Two other questions were added: Q.12 was a test question run for the Regional Municipality of Ottawa-Carleton on the type of "affordable housing" that the people in the Region might want; Q.14 was an attempt to obtain insights on people's perception of neighbourhood boundaries. The final questions, Q.15 and Q.16, were the interviewer's verification of the housing and neighbourhood classification used in the study.

3.1.2 Background Data

The 1986 Census (both 100% and 20% data) was used to establish profiles of the study sites: population and dwelling characteristics, household characteristics, and household incomes. The 1986 Land Use Survey of the Ottawa-Carleton Regional Municipality Planning Department gave the amount of land occupied by various land use types, at both the Census Tract and Enumeration Area level. It was used to calculate land use mix. Also, since both data sources shared the same housing type and density definitions ("Single Family Dwelling" in Census was equivalent to "Low Density Residential" in the Land Use Survey, "Apartments" to "High Density", and "All Other Types" to "Medium Density"), they were used to calculate population and dwelling densities of the sites.

3.2   Site Selection

The locale was the Ottawa-Carleton area. This study tried to examine the relationship between residential crowding and resident satisfaction (quality of life). As indicated in the literature "crowding" takes effect at both the dwelling and neighbourhood scale. Therefore, dwelling density and neighbourhood density should be treated separately. At the micro-level is home or household crowding, which has been generally defined in the literature by persons per room or persons per bedroom (see Section 1.3.2.). This is a function of both the size of the dwelling (number of rooms) and size of the household (number of persons). In our study the data for home crowding were to be obtained through the questionnaire survey.

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Neighbourhood crowding, on the other hand, has been variously defined by the average numbers of persons, rooms, dwelling units, and residential structures in the neighbourhood (see Section 1.3.2). The first difficulty we encountered in determining the level of neighbourhood crowding (density) was the size of a neighbourhood. The debate about this has never been settled. At one end, people such as Le Corbusier would argue that the whole city is the neighbourhood. At the other end, Perry's neighbourhood unit, Gans' urban village and Jacobs' city block were progressively smaller and smaller neighbourhoods. Sometimes, "neighbouring" does not go beyond the adjacent dwellings. Perhaps there is no one size. Much depends on what one is interested in examining. Satisfaction on privacy, noise, parking, etc. may be affected by the housing type and density level in the immediate vicinity, perhaps no more than a street block. On the other hand, satisfactions on traffic safety, open spaces, convenience shopping, etc. may be affected by housing types and density levels in a much larger area, perhaps the size of at least a Census Tract (average 3000-6000 population).

Our first decision was that there should be three kinds of sites representing three major housing types: single-family or low density, highrise apartments or high density, and the whole range of medium density housing from duplexes to rowhouses to medium-rise apartments. The use of these housing types had the advantage of being one and the same as the Census dwelling classifications and Ottawa-Carleton Planning Department land use classifications. Besides, conventional wisdom suggests that they relate directly to residential crowding and quality of life (Lynch, 1971, p. 317). One of the purposes of this study was to test such conventional wisdom.

We also assumed that neighbourhood crowding effects would vary according to whether an area was dominated by one housing type or had a variety of housing types, and whether there was only residential use or a mix of uses. So, our decision was to choose twelve sites based on three housing types (low, medium and high density), two housing mixes (one predominant housing type and mixed housing types) and two land use mixes (residential and mixed uses). A housing type predominated if more than two-thirds of the housing stock belonged to that

housing type. A site was classified as residential if it had only housing and residential-related land uses such as convenience stores and schools.

We further decided that the "size" of our sites should be large enough so that Census Tract data could be used and 20 valid interviews could be obtained (predicting a response rate of no more than 20%). Yet, they should be small enough so that neighbourhood crowding effects would be experienced consistently throughout the site. The resultant sizes varied between one to six Enumeration Areas (EA) which were the smallest reporting unit in Census, with about 200-300 households each.

Two more site selection criteria were used. First, the literature suggests income and housing condition are closely linked. Our study focused on "middle-income" neighbourhoods. In Ontario, and possibly the rest of Canada, the current emphasis on "affordable" housing has a distinct "middle-income" bias where the target population include all households below 60% of the income distribution. For this reason, an additional criterion in our site selection was that the average household income should be within the middle-third income range of the Metropolitan Area. After some adjustment, this range was set at $25,000 to $40,000 in 1986 income (32% to 55% of the Metropolitan Area income distribution). Finally, it was also decided that all the study sites should be selected from the City of Ottawa so as to ensure some consistency in municipal service levels and planning standards.

Based on the above criteria 11 sites were selected as follows. (see also Map 1) We could not identify a suitable site which had predominantly low density (single-family) housing in a mixed land use neighbourhood.

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| Site # | Code | General Location | C.T. | E.A. |
|--------|------|------------------|------|------|
| 1 | LLR | Riverview Park | 0.11.02 | 0.17. |
| 2 | LXR | The Glebe | 018 | 127,201. |
| 3 | LXX | Centre Town | 037 | 401, 402<br>403, 404,<br>405, 407. |
| 4 | MMR | Sandy Hill | 051 | 158, 159,<br>160, 161,<br>209, 210. |
| 5 | MXR | The Glebe | 018 | 127, 201. |
| 6 | MMX | Lower Town | 055<br>056 | 314, 316.<br>302, 304,<br>305. |
| 7 | MXX | Centre Town | 037 | 401, 402,<br>403, 404,<br>405, 407. |
| 8 | HHR | Riverside/Hurdman | 0.11.02 | 0.36. |
| 9 | HXR | Hog's Back/Dynes | 020.01 | 021. |
| 10 | HHX | Hog's Back/Prince of Wales | 020.01 | 017, 018. |
| 11 | HXX | Centre Town | 037 | 401, 402,<br>403, 404<br>405, 407. |

Code: 1st letter = housing type    L =    Low density (single-family, duplexes and triplexes)

M =    Medium density (rowhouses, townhouses, to apartments of less than 5 storeys)

H =    High density (5 storeys and higher buildings)

2nd letter = predominant housing type in neighbourhood.

L, M and H have same definition as in 1st letter.
X means mixed housing.

3rd letter = land use type.    R = predominately residential
X = mixed uses.

## 3.3    Sampling

The sites were designated according to housing type, housing mix, and land use mix.  The number and location of appropriate dwelling units available at each site were determined by a wind-shield survey.  Since 20 interviewers had to be obtained, the available number was divided by 20.  The resultant number gave the sample frame.  For example, if there were 100 appropriate units, then every fifth unit (100÷20 = 5) would be interviewed, beginning with a random choice (from a table of random digits) of the first unit.  If the number 3 was the random choice then the third dwelling in every five would be interviewed.  The interviewer would attempt a maximum of three visits to obtain an interview from a designated unit, including leaving a note of brief introduction and the interviewer's telephone number.  Failing this, the interviewer would move up, and then down the cluster to search for an interview.  In our example, the interviewer would move from the third unit to the second unit, then to the fourth, and so on until an interview was secured.

In our study, low density housing included single-family houses, duplexes, and homes with a maximum of three mail boxes.  This meant our sample would have contained "higher" density housing than that classified as Low Density Dwelling in the Census and the Ottawa-Carleton Land Use Survey.  This approach was used because of (i) the difficulty in finding a sufficient number of single-family houses in the more crowded neighbourhoods, and (ii) the general acceptance of duplexes and triplexes as low density housing in an urban setting.  However, this also meant that our neighbourhood densities derived from the Census and Ottawa-Carleton Land Use Survey would have been lower than those that would have resulted otherwise.

Medium density housing included buildings with four to fifty mail boxes, and no more than four storeys high.  It did not include buildings that forbad soliciting or that did not have an intercom system accessible from the outside.  To avoid over-representation no more than a quarter of the dwelling units within any housing building or complex would be interviewed.

High density housing were usually "secured".  The building manager was

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approached to gain permission to solicit interviews. In some cases entry to the building was granted and door-to-door soliciting was possible. In other cases this was done at the front foyer. Through the intercom system a brief introduction was made. Sometimes, the coding of the intercom buzzers bore no relation to the apartment numbers. These had influenced the representativeness of the sample.

## 3.4    Execution

The sites were selected by April 1991. The survey instrument was developed and pre-tested by August. The interviews began in mid-October 1991 and ended in early February 1992.

The interviewer was a woman who found it necessary to avoid solicitating for interviews after dark. Weekend interviews were most successful. The sample representativeness might have been skewed. Each interview took 30 minutes to over an hour. Many of the interviews were done in the winter months and the weather had undoubtedly affected the dwelling and neighbourhood conditions and people's perception of them, probably for the worse. Extensive fieldnotes were taken, especially about the suggestions and comments volunteered by the respondents. These offered invaluable insights for interpreting the responses.

There was no "age" question in the questionnaire, on account of some hesitation on the part of the investigator about "ageism". Some oversights were remedied as the interviews proceeded. "Sidewalk condition" was added to neighbourhood quality, and "drug stores" replaced "doctors/clinics/drugstores" in neighbourhood facilities.

The sites were photographed and the interview procedure was recorded extensively. The following is a listing of the interviews at each site.

| Site# | Coding | General Location | Total # of Qualified Dwelling Units | Trials | Successful Interviews |
|---|---|---|---|---|---|
| 1 | LLR | Riverview Park | 68 | 51 | 19 |
| 2 | LXR | The Glebe | 225 | 162 | 16 |
| 3 | LXX | Centre Town | 65 | 41 | 12 |
| 4 | MMR | Sandy Hill | 283 | 117 | 20 |
| 5 | MXR | The Glebe | 225 | 72 | 18 |
| 6 | MMX | Lower Town | 197 | 113 | 17 |
| 7 | MMX | Centre Town | 351 | 134 | 20 |
| 8 | HHR | Riverside/ Hurdman | 247 | 92 | 20 |
| 9 | HXR | Hog's Back/ Dynes | 192 | 83 | 19 |
| 10 | HHX | Hog's Back/ Prince of Wales | 500 | 196 | 15 |
| 11 | HXX | Centre Town | <u>396</u> | <u>178</u> | <u>194</u> |
| | | Total | 2749 | 1239 | 194 |

(response rate 15.7%)

As will be noted from the above, the response rate of the interviews was low. The financial resource for this study was very limited and it was really through the creativity and perseverance of the interviewer, Carolyn Doyle, that more than 1,200 dwelling units were solicited. The 194 completed interviews for the 11 sites fell a little short of the projected 20 interviews per site. But it was perhaps the best one could have hoped for under the combined pressure of budgetary constraints, bad weather conditions, and rigorous site selection criteria.

3.5    Analytic Procedures

The responses were recorded in code form on the questionnaire survey instrument. It must be stressed at the outset that with the limited scope of the study the (geographic coverage and sample size) our intention was not to produce statistically valid generalizations, but to develop questions about the possible relationship between residential density and user satisfaction, which could then

be tested using large statistical data sets or in-depth case studies. The analytic procedure was, therefore, devised to probe for such relationships.

The first decision was to produce site-specific data rather than aggregate data, so that sites (housing types, housing mixes, and land use mixes) can be compared. Another early decision was to avoid cross tabulation and correlation tests because the cells in each of the categories of responses were small on account of the small sample for each site.

Frequency counts were accompanied by percentage distributions, which enabled the comparison between sites where the number of interviews varied slightly. The three components of the questionnaire were treated differently.

## 3.5.1 Resident Satisfaction (Q. 3, 4 and 5)

The five-point scale of the responses was regrouped into three: satisfaction ("excellent" and "good"), indifference ("fair") and dissatisfaction ("not-so-good" and "poor/too much/too little").

The percentage of respondents at each site, who expressed "satisfaction" and "dissatisfaction" were compared across the different housing attributes, individually and in aggregates. The aggregation involved two considerations: bundling of housing attributes, and averaging of percentages. Housing attributes were bundled as follows,

(a) Dwelling conditions were divided into interior and exterior aspects. The specific question of "privacy" (Q.3.7) was treated separately.

(b) Neighbourhood qualities were divided into crowding-specific and noncrowding-specific ones.

(c) Neighbourhood facilities were grouped under quality and accessibility.

For each bundle of housing attributes the individual percentages of the housing attributes were added up and divided by the number of attributes in the bundle. To avoid the usual statistical pitfall a housing attribute would not be included if the number of observations (n) made was less than two-thirds of the sample size. In our case the minimum number of observations required was 130 (194 ÷

2/3).

The level of satisfaction and dissatisfaction was further analyzed using two different procedures.

(i) Ranking

For each housing attribute the sites were ranked at increments of five percentage points. The site with the highest percentage of satisfaction was ranked First. The site with the second highest percentage was ranked Second, except when the percentage difference was less than five points then both sites would be ranked First. The next site whose percentage difference from the very first one was more than five points would then be ranked third. The same procedure was used to rank dissatisfactions. However, it was discovered that the ranking approach had three important drawbacks. Firstly, this scheme took the dangerous assumption that the magnitude of differences between First, Second, Third, and so forth, were the same, whereas in fact they were not. Secondly, a number sites might share the same rank, and the rank order might skip the sequence of natural numbers. This would have made any attempt to aggregate the ranking scores over a number of housing attributes suspect. Thirdly, satisfaction or dissatisfaction levels of the same housing attribute at different sites might be very similar or dissimilar. Notwithstanding the five-percentage-point rule, this ranking approach would have obscured the significance of the difference in absolute satisfaction and dissatisfaction levels for different housing attributes. The approach was tried and rejected in favour of a rating scheme.

(ii) Rating

For each housing attribute the sites with "high" satisfaction and dissatisfaction were identified as follows. The overall percentage spread of the satisfaction/dissatisfaction levels between all the sites was divided by five. The top fifth was considered high, and sites with percentages within the top fifth were rated as sites having high satisfaction/dissatisfaction levels for that particular housing attribute.

For example, Table 1 shows the percentage satisfaction levels in Q.3.1 (number of bedrooms) as ranging from 53% (Site #10) to 94% (Site #2). The spread was 41 percentage points (94%-53%). One fifth of that was 8.2 points. Therefore, the top fifth spread was 85.8% to 94%. Based on this criterion Fig. 1 shows that the high satisfaction sites were #2 (94%), #8 (90%) and #9 (89%). Similarly, for dissatisfaction levels (Table 4) the range was 6% (Site #2) to 33% (Site #10). The top fifth spread was between 27.6% and 33%. This meant that only Site #10 had a high dissatisfaction level, all the other sites had dissatisfaction levels less than 27.6%.

Two checks were included to make sure that the analytic scheme was statistically useful. Sites would not be rated for any housing attribute where the total number of observations made was less than two-thirds of the overall sample size, or 130, or that the number of observations at each site was less than two-thirds of the sample size at the site. This helped to avoid small numbers of observations at any site skewing the general pattern. Also, sites would not be rated where the overall percentage spread was less than 20 points. This was to avoid giving undue importance to minor differences in the satisfaction/dissatisfaction levels among the sites.

3.5.2 Resident Expectations (Q. 6 and 7)

The "importance" measure was treated as a proxy of resident expectation. It was felt that a greater importance placed on a housing attribute was an indication of a higher expectation for that housing attribute.

The analytic procedure was similar to that used for resident satisfaction. The five-point scale of the response was regrouped into three: important ("extremely important" and "very important"), indifferent ("fairly important"), and unimportant ("somewhat important" and "not important"). In our analysis, only the "important" percentages were considered because they indicated positive expectations. These expectations with respect to the housing attributes,

individually and in aggregates, were compared across sites. The aggregation procedure was similar to that used in the analysis of resident satisfaction and dissatisfaction. This ensured that levels of satisfaction and dissatisfaction could be compared to levels of expectations. As argued in Section 3.1.1(ii), conceptually we could never have a perfect one-to-one match between expectations and satisfaction/dissatisfaction for each of the housing attributes. There were unavoidable overlaps and multiple matches. But the "bundles" of housing attributes were by and large comparable (see Sections 3.1.1(i) and (ii)). Sites with "high expectations" were identified for each housing attribute by using exactly the same rating procedure as that used in the analysis of satisfaction and dissatisfaction (see Section 3.5.1(ii)). Stress was identified where high expectations were matched to low satisfaction or high dissatisfaction.

3.5.3 Parametric Variables and Background Variables (see Sections 3.1.1(iii) and 3.1.2)

These were used to explain levels of satisfaction and dissatisfaction and mismatches between satisfaction and expectations. There were two groups: housing (especially density and land-use) variables and "people" variables.

All reference to Census materials were drawn from "Selected Characteristics for Census Tracts, 1986 Census -- 100% Data, 95-135; and "Selected Characteristics for Census Tracts, 1986 Census -- 20% Data, 95-136. All land use references were drawn from "Land Use Survey", Ottawa-Carleton Planning Department, 1986.

The hypothesis to be tested in this study was that densities (crowding) and land use mixes affect resident satisfaction (quality of life). Therefore, variables in density and land use were central to our analysis. The following measures were used.

DWELLING CROWDING VARIABLES

Persons/Household:  A = Average number of personals per household at site (Census).

Persons/Household:  B = Average number of persons per household in the sample (Q.1.4).

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Persons/Bedroom:         = Total number of persons in the sample divided by
                           total number of bedrooms (Q.1.4 and Q.2.3).

Rooms/Dwelling:    A = Average number of rooms per dwelling at site
                       (Census).

Rooms/Dwelling:    B = Average number of bedrooms per dwelling in sample
                       (Q.2.3).

NEIGHBOURHOOD CROWDING VARIABLES

Persons/Hectare        = Number of residential population per hectare of
                         residential land at site (Census and Land Use
                         Survey).

Dwellings/Hectare: A = Number of dwellings per hectare of net
                       residential land at site (Census and Land Use
                       Survey).

Dwellings/Hectare: B = Number of dwellings of a specific housing type
                       per hectare of net residential land occupied by
                       that housing type at site (Census and Land Use
                       Survey).

Dwellings/Structure    = Number of dwellings unites per multiple housing
                         structure in the sample (low density housing type
                         assumed to be 1 unit per structure), (Field
                         Survey).

Perception of Crowding= Percentage in sample who thought neighbourhood
                        was "very overcrowded" or a "little overcrowded"
                        (Q.2.7).

LAND USE VARIABLE

"Nonresidentialness"   = Percentage of land for nonresidential or
                         nonresidential-related uses in Census Tract
                         (Census and Land Use Survey). These included
                         "commercial", "industrial", "office",
                         "transportation/utilities/communications", and
                         "active recreation" uses as defined in the Land
                         Use Survey, Ottawa-Carleton Planning Department,
                         1986.

HOUSING STOCK VARIABLES

Age:   Pre-1946        = Percentage of dwelling units at site built prior
                         to 1946 (Census).

Age:   Pre-1960        = Percentage of dwelling units at site build prior
                         to 1960 (Census).

Age:   Post-1971       = Percentage of dwelling units at site built after
                         1971 (Census).

Dwelling Price         = Average dwelling unit price at site (Census).

"Quality" Index        = Average dwelling price divided by average number
                         of rooms (Census).

Size: #Rooms           = Average number of rooms per dwelling at (Census).

```
Size: #Bedrooms          = Average number of bedrooms per dwelling in sample
                           (Q.2.3).

Mix A: Low Density       = Percentage  of  low  density  housing  at  site
                           (Census).

       Med. Density      = Percentage  of  medium  density  housing  at  site
                           (Census).

       High Density      = Percentage  of  high  density  housing  at  site
                           (Census).

Mix B: S.F.              = Single-family houses in the sample (Q.15).
       S.D.              = Semi-detached houses in the sample (Q.15).
       R.H. & T.H.       = Rowhouses and townhouses in the sample (Q.15).
       L.R.              = Lowrise apartments in the sample (Q.15).
       H.R.              = Highrise apartments in the sample (Q.15).

Ownership: A             = Percentage of dwellings owned at site (Census).

Ownership: B             = Percentage of dwellings owned in sample (Q.2.1).

PERSONAL/HOUSEHOLD VARIABLES

Income: Household Median     = Median household income in Census Tract.
        Household Average A  = Average household income in Census Tract.
        Household Average B  = Midpoint  of  income  range  at  site
                               (Census).
        Household High       = Percentage  of  respondents  reporting
                               "well-off" in sample (Q.13.5).
        Household > $50,000  = Percentage of respondents with household
                               income greater than $50,000 (Q.13.6)

Housing Cost: High Cost          =  Percentage of respondents in sample
                                    paying more than one-third of income
                                    (Q.9.2).
Housing Cost: No Rent/Mortgage   =  Percentage of respondents in sample
                                    paying no mortgage or rent (Q.9.1).
Housing Cost: High Rent/Mortgage =  Percentage of respondents in sample
                                    paying more than $1,000 per month for
                                    rent or mortgage (Q.9.1)

Household: One-Person A          =  Percentage of one-person households
                                    at site (Census).
Household: One-Person B          =  Percentage of dwellings owned in
                                    sample (Q.2.1).
Intention to Own                 =  Percentage of renters intending to
                                    own (Q.11.1).

Length of Residence: Dwelling    =  Percentage of respondents with more
                                    than 10 years in present dwelling
                                    (Q.1.1).
Length of Residence: Neighbourhood= Percentage of respondents with more
                                    than  10  years  in  present
                                    neighbourhood (Q.1.3).

Intention to Relocate: Soon      =  Percentage of respondents intending
                                    to move within 2 years (Q.10.3).
Intentions to Relocate: to
Different Dwelling               =  Percentage of respondents intending
                                    to  move  from  present  dwelling
                                    (Q.10.1).
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Intentions to Relocate:
to Different Neighbourhood      =  Percentage of respondents intending
                                   to move from present neighbourhood
                                   (Q.10.2).

Education:   University A        =  Percentage of population at site with
                                   university education, with or without
                                   degree, (Census).
Education:   University B        =  Percentage of population in sample
                                   with university eduction (with or
                                   without degree) (Q.13.2).

Disability                      =  Percentage of respondents reporting
                                   physical disability in the household
                                   (Q.13.4).
```

For all these variables actual numbers, percentages and indices were used. In addition, graphical analysis was employed to identify and illustrate patterns and possible correlations. As indicted earlier, the sample size was not large enough to run reliable statistical correlation and regression tests but it was sufficient for the identification of potentially significant relationships.


## 3.6   Caveats

A number of substantive and methodological gaps remain to be overcome. First is the measures of density. The literature talks about "crowding", and the "problems" (dissatisfaction) associated with it. It has been well documented that residents' perception of the housing conditions are usually very high. Indication of dissatisfaction are negligible at times. Therefore, for analytic purpose, differences in satisfaction levels are as revealing as dissatisfaction. Our study measured both dissatisfaction and satisfaction. However in the analysis of satisfaction levels we had to use reciprocals of crowding measures (e.g. rooms/person instead of persons/room). This measure also enhanced graphical displays of the relationship.

In Section 3.2 we discussed the difficulties in determining the size of a "neighbourhood". For practical consideration we used clusters of Enumeration Areas that would give us sufficient numbers of interviews. These worked well with the low and medium density housing sites where the "territorial" space varied between 10 to 15 city blocks (Reynolds, 1961). But the high density housing sites were often one or two blocks in size. One could argue that the

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neighbourhood was more vertical than horizontal. But this had made our determination of housing mix and land use mix more difficult. Our compromise was to include the "vicinity" (based on field observation and Census data availability, which usually meant four or five city blocks in size) in our calculation of neighbourhood densities and land uses.

A more significant consideration was the choice of crowding measures used in the analysis. The literature speaks of the following (see Section 1.3.2).

1. P/A = population to the total land area.

2. P/R = population to the total number of rooms in the area.

3. R/D = total number of rooms to the total number of dwellings

4. D/S = total number of dwellings to total number of residential structures.

5. S/N = total number of residential structure to the total amount of residential land.

6  N/A = total amount of residential land to the total amount land in the area.

In our study we made certain modifications.

P = Total population

A = We used total residentail land instead of total land area.  We believed that this was a more refined measure of residential crowding than total land area.

R = We had the average number of rooms per dwelling for the sites, based on Census data. But we supplemated that with "bedrooms" per dwelling, which we obtained from our sample survey.

D = Number of dwelling units.

S = We did not have the number of structures for the sites.  But we had the number of structures in our sample survey.

N = We had data on the amount of residential land for different housing density types.  This was a better determinant of neighbourhood crowding than the aggregated residential land area.

Because of the incompatibility between Census data and sample survey data

we could not obtain crowding measures such as D/S and S/N. But as the literature has indicated these are not crucial crowding measures.

There were a number of other substantive and methodological items that did not receive adequate attention.

1. We omitted parks and open space in our neighbourhood satisfaction measures. This could be a significant effect of crowding.

2. We had lumped together doctor, clinic and drugstore in our questionnaire. It became immediately clear in our execution of the interviews that most people were concerned only about the drugstore, and we changed the questions immediately. But the responses we obtained might have been contaminated.

3. Our "occupations" classification, based on Census, was much too elaborate for our small sample.

4. We interviewed one person per household. This "spokesperson" could not represent other members of the household. Children were definitely under-represented.

Finally, there was the question of measuring the six psychological linkage between the properties of the environment and responses of its inhabitants: stress, orientation and ease of movement, sociability and community, cultural-recreational opportunities, enrichment of experience, and the decision process (see Section 2.2). Our problem was that the same housing attributes used in the study could be related to a number of the psychological aspects in the literature (Ittelson et al., 1974, pp. 246-247). For instance traffic noise could be related to "stress" as well as "enrichment of experience", and a community centre could be related to "sociability and community" as well as "cultural-recreational opportunities." In order to avoid exaggerated significance of particular housing attributes we chose not to attach specific housing attributes to any of the six psychological linkages in our analysis of the relationship between expectation and satisfaction/dissatisfaction.

Notwithstanding these and other limitations of research design and sampling the findings showed some rather interesting patterns and intriguing relations.

**SECTION 4  FINDINGS AND ANALYSIS**

4.   FINDINGS AND ANALYSIS

This section is organized as follows.

4.1   Site profiles

4.2   Satisfaction/dissatisfaction

4.3   Expectations

4.4   Explanatory variables


4.1   Site Profiles

There were 11 sites grouped into three types:  low density housing,
medium density housing and high density housing.  The following is a short
description of each of them.  Refer to Appendix B for site profiles.

Site #1 (LLR)   Low density housing in a predominantly low density
housing area with predominantly residential use.

> This was a single-family homes enclave in the Riverview Park
> area, locating among, but physically separated from (either by a
> major road or parkland), walkup and high-rise apartments.
> Developed in the 1950s it had relatively small houses but matured
> landscaping.  The site was also close to a major shopping centre
> and industrial park, though not withing walking distance.

Site #2 (LXR)   Low density housing in a mixed housing area with
predominantly residential use.

> This was located in the Glebe and consisted of mixed low and
> medium density housing spreading out from both sides of a main
> commercial street (Bank Street).  It was an older area where
> homes were being gentrified.  Most of the low density homes were
> located on the west side of the main street and away from the
> commercial part, while the medium density homes (Site #4) were
> located on the east side or close to the intersection of the main
> street.  The Lansdowne Stadium and Exhibition Grounds were close
> by, causing problems with noise, vandalism and parking.  The
> general area had very mixed income and tenure.

#3 (LXX)  Low density housing in mixed housing area with mixed land use.

> This was in the city centre (Centre Town) with mixed housing among institutional buildings, offices, general commerce and a sprinkle of small city parks. A large museum located at the periphery, combined with a one-way street system, had created pockets of noisy as well as quiet areas. Most of the single-family homes were found in the quieter parts. The area was being gentrified, though not as much as in Sites #2 and 5.

Site #4 (MMR)  Medium density housing in a predominantly medium density area with a predominantly residential land use.

> The general area was known as Sandy Hill. It was predominantly rowhousing, apartments converted from single-family homes, and walkup apartments. There were many neighbourhood services and quite a number of small parks. The east-west streets (long block face) carried heavier traffic. The area was closely associated with university student housing.

Site #5 (MXR)  Medium density housing in a mixed housing area with predominantly residential use.

> This was in the same general area as Site - #2 the Glebe - on both sides of the main commercial retail street (Bank Street). However, unlike Site #2 (low density housing) the medium density housing, mostly in the form of triplexes, rowhouses and walkup apartments, were located on the east side of the main street or near the intersections. This side was somewhat less gentrified and closer to the Lansdowne Stadium and Exhibition Grounds than Site #2.

Site #6 (MMX)  Medium density housing in a predominantly medium density housing area with mixed land use.

> This area was located to the immediate north of the Byward Market, referred to as Lower Town. There were social housing

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units mixed with gentrified and new housing, offices and small boutique-type retail. Most of the redevelopment happened in the last 10-15 years. The market area had been renovated and regenerated to become a major tourist attraction with a reputation for entertainment and a "red-light" district. There were main government institution buildings and a giant shopping centre nearby.

Site #7 (MXX)   Medium density housing in a mixed housing area with mixed land use.

This was in the same general area as Sites #3 and 11, the Centre Town. It was an area of housing mixed with institutional buildings, offices and general commerce. The medium density housing was mostly in the form of large three- to four-storey apartment blocks which had seen better days. Unlike the low density housing (Site #3) which was located on the east-west streets, these were located on, or close to, the north-south streets (short street blocks) with heavy traffic and, as in the case of Elgin Street, restaurants and bars.

Site #8 (HHR)   High density housing in a predominantly high density housing area with residential land use.

This was a site with a number of highrise apartments strung along the river (Riverside). The area was in the same Census Tract as Site #1 (LLR) but these were separated by a railroad. Built in the last 5-10 years the site was close, though not within walking distance, to a major shopping and industrial area.

Site #9 (HXR)   High density housing in a mixed density housing area with residential land use.

This was located in the Hog's Back area (Dynes Road), in the same Census Tract as Site #10. It was one of two highrise in the midst of a large spread of rowhousing. The building was a condominium and the rowhouses were social housing. It was close

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to, but physically separated by topography and fencing from a shopping mall. It was also close to a large city park and the canal.

Site #10 (HHX)   High density housing in a predominantly high density housing area with mixed land use.

This was located in the Hog's Back area (Prince of Wales Drive) next to Site #9 (in the same Census Tract). It was a cluster of highrise apartments, built about 20 years ago. Across a major road with heavy traffic was a shopping centre. The site was also close to a major park, canal, and some industrial land.

Site #11 (HXX)   High density housing in a mixed density housing area with mixed land use.

This was the same City Centre area as in Sites #3 and 7. Busy streets, major institutional buildings, housing, and commerce were all mixed. Most of the highrises did not exceed 15 storeys (lower than in other high density housing sites), and were located along the north-south streets (short blocks) with heavy traffic.

4.2    Satisfaction/Dissatisfaction

4.2.1 Satisfaction

In analyzing the levels of satisfaction and dissatisfaction, the housing attributes were divided into three groups:   dwelling, neighbourhood and facilities (see Section 3.1.1).

Dwelling attributes consisted of interior and exterior. Privacy was analyzed separately. Some of the attributes in the questionnaire instrument were dropped because they had no conceivable relation with residential density, such as "insulation". Table 1 and Graph 1 show the satisfaction levels about dwelling conditions.

Neighbourhood attributes were divided into crowding-specific and noncrowding-specific areas. The crowding-specific attributes were those

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considered directly linked to neighbourhood crowding, such as traffic noise and neighbour noise; and noncrowding-specific attributes were those thought to be very important to the general quality of life of the residents but were not immediately linkable to neighbourhood crowding, such as security from crime and building maintenance. Table 2 and Graph 2 show the satisfaction levels about neighbourhood quality.

Facility attributes were divided into quality and accessibility. Quality had to do with the rating of satisfaction and accessibility had to do with walking distances. One important point was that in the accessibility measure "work" and "friends" were included. These might not have to do with conventional neighbourhood facilities *per se*, but they were important aspects of the environmental psychology linkages between the environment and quality of life. Table 3 and Graph 3 show the satisfaction levels with neighbourhood facilities.

From the Tables a number of observations can be made about sites with the highest or lowest satisfaction levels with respect to this or that dwelling attributes. But this would have overlooked the fact that many of the scores were quite comparable. A rating scheme (Section 3.5.1) was used to identify "high" (as opposed to "the highest") and "low" (as opposed to "the lowest") satisfactions. An interesting pattern emerged, as shown in Fig. 1.

The high satisfaction levels appeared to cluster around the low density and high density housing group, and the low satisfaction levels were concentrated around the medium density housing group. A number of sites stood out. Within the low density housing group Sites #1 and 3 were better than Site #2, and within the high density group Sites #8 and 9 stood out clearly. The medium density housing group performed uniformaly poorly, especially Site #6 where residents experienced lower satisfaction in all attributes except in the exterior appearance of the homes. Site #6 consisted of many newly developed social housing units (see Appendix B for profile).

The pattern changed somewhat when it came to neighbourhood quality, as

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shown in Fig. 2. The low density housing group clearly offered higher satisfaction levels to its residents, especially Site #1 which was closer to the conventional subdivision than the other two more "urban" low density housing sites. The high density housing group no longer offered a clear advantage with respect to neighbourhood quality. The medium density housing group had a checkered performance. The worst site was Site #7, the city centre site, with both mixed housing and mixed land use. Site #6, where residents had the lowest dwelling satisfaction, became more positive at the neighbourhood level.

The pattern of satisfaction changed further when it came to neighbourhood facilities, as shown in Fig. 3. As far as quality was concerned all three sites with a predominant housing type and located in a primarily residential area (#1, 4 and 8) had lower satisfaction levels. The more "urban" sites with mixed housing and/or land uses had higher satisfaction levels. With respect to accessibility, the medium density housing group stood out as offering the highest satisfaction level. In both quality and accessibility all of the lower satisfaction levels came from sites that had one predominant housing type (#1, 6, 8 and 10). One interesting phenomenon was the greater number of highs and lows here than in dwelling conditions and neighbourhood quality. This could mean that people had much clearer perceptions as well as discrimination when it came to neighbourhood facilities.

A number of important discussion points emerged from the above analysis.

1.    In dwelling satisfaction both low and high density housing types were preferred to medium density housing, and, within that, the more "residential" the sites the higher the satisfaction.

2.    In neighbourhood satisfaction, the clear winner was the single-family subdivision (Site #1), and the clear loser was the inner-city old medium-rise apartments (Site #7). The distinction between the other sites became blurred.

3.    Quality and accessibility of neighbourhood facilities were clearly better in the more "urban" sites (mixed housing and land uses). The poorest performers were highrise clusters (Sites #8 and 10).

4.2.2 Dissatisfaction

An analysis of the levels of satisfaction would show variations in "happiness", but environmental stress is often illuminated by the degree of "unhappiness". The following is an analysis of dissatisfaction, focusing only on situations where "high" levels of dissatisfaction were recorded (Tables 4-6, Figs. 4-6, and Graphs 4-6). Such an analysis offers a much sharper picture of genuine grievances than an analysis of satisfaction levels. The reluctance of residents to express high dissatisfaction with their housing environment has been well researched and documented. In our responses, both the number of people and the magnitude of their dissatisfaction were smaller than those reporting satisfaction. This meant that for certain housing attributes the range of dissatisfaction levels could be too small to provide sufficient distinction between sites.

What emerged from the analysis was more than a confirmation of the findings of the "satisfaction" analysis but additional insights on the relation between housing density type and quality of life.

The dwelling dissatisfaction analysis (see Fig. 4) confirmed that the high density housing group had the least dissatisfaction, but it also showed that the sites in the low density housing group all experienced high levels of dissatisfaction in a variety of dwelling attributes. Site #1 (the most homogeneous low density housing site which was also the most "residential") had problems with home size and internal layout (probably because it was an old subdivision built in the 1950s); Site #2 (the gentrified old neighbourhood) had appearance and view problems; and Site #3 (the inner-city mixed housing and mixed land use site) had problems with room size, home size and internal layout. Perhaps the most significant revelation was that while within the medium density housing group Site #6 (Lower Town) had the lowest

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satisfaction levels in a large array of dwelling attributes, it was Site #4 (Sandy Hill) that had the largest number of high dissatisfaction counts. This showed that, while many residents in Site #6 did not have too much good to say about their dwelling conditions, few residents were actually unhappy about them. But in Site #4 the reverse happened: a sufficiently large percentage of the residents (compared to other sites) had good things to say about their dwelling conditions, but an even larger proportion of the residents (compared to other sites) were actually unhappy about the conditions. In our discussion section we will reflect on what this distinction means.

The neighbourhood dissatisfaction analysis (see Fig. 5) basically confirmed the satisfaction analysis in that Site #7 (Centre Town: medium density housing in a mixed housing and land use area) had both the lowest levels of satisfaction and the highest levels of dissatisfaction. But, unlike the satisfaction analysis, it also revealed that, while residents in the other sites might not show significant satisfaction levels (except for Site #1), there were no significant dissatisfactions either.

The facilities dissatisfaction analysis (Fig. 6) also confirmed the general picture emerging from the satisfaction analysis in that the high density housing group, except Site #11 which was in the city centre, had the biggest problems in neighbourhood facilities. Within this group the combined satisfaction/dissatisfaction analyses helped to identify the real problem areas. With respect to Site #8 (a group of highrises in the middle of nowhere) the problem was all-round, both in quality and accessibility. For Site #9 the problem was quality, and for Site #10 it was accessibility. Both Site #9 and 10 were located near the same shopping mall. Site #9 was farther away and was separated from it by topography and a fence; Site #10 was closer and was separated from it by a major road. However, residents from Site #9 could walk pass the buildings and through the fence whereas residents from Site #10 had to cross very heavy and fast traffic in order to get to the malll. In a way, our classification of Site #9 as residential and Site #10

as mixed uses was legitimate only in terms of <u>what uses</u> were placed on the land, and not how people in the neighbourhood actually <u>make use</u> of them.

The satisfaction and dissatisfaction analysis showed the residents' perception and evaluation of the quality of their environment. The next section reports on their expectations with respect to the same environmental attributes. Together, they should give some indication of the locus of environmental stress, or unfulfilled environmental expectations.

4.3   <u>Expectations</u>

In analyzing expectations the housing attributes in Q. 6 and 7 were divided into the same three groups as in the analysis of housing satisfaction/dissatisfaction: dwelling, neighbourhood and facilities. The bundles of housing attributes used in the satisfaction/dissatisfaction and expectations measure could be best considered as compatible and not identical for reasons discussed in Section 3.1.1(ii). But, whenever possible, satisfaction/dissatisfaction levels were matched to the expectation levels of specific housing attributes.

4.3.1 Expectation Levels

The percentage of residents at a site, who considered a housing attribute to be "extremely important" or "very important", was taken as a proxy measure of the level of expectations (Tables 7, 8 and 9). Using the analytic procedure described in Section 3.5.2 sites with "high" expectations were identified (Figs. 7, 8 and 9). The following is a description of the pattern that emerged.

Undoubtedly, the sites with the highest expectations about dwelling conditions were also those which were most "residential" in character: Site #1 (Riverview Park) and Site #8 (Riverside/Hurdman) (Fig. 7). Moreover, it is worth noting that these two sites were side-by-side, separated by a railway track. Another interesting finding was that Site #9 (Hog's Back/Dynes) which had the highest dwelling satisfaction, showed no high

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expectations in any of the dwelling attributes (Fig. 1 vs Fig. 7). Conversely, although in a much less dramatic fashion, Site #6 which had the lowest dwelling satisfaction had a good number of high expectations. These observations will be explored later.

With respect to neighbourhood quality, again Sites # 1 and 8 emerged as sites with the highest expectations (Fig. 8). In comparing expectations to satisfaction (Fig. 8 vs Fig. 2) Site #1 showed a near perfect match between high expectations and high satisfaction. But in Site #8 (Riverside/Hurdman) many of the high expectations were not matched by high satisfaction. An even more interesting observation was that Site #7 (Centre Town) which showed very low satisfaction levels and high dissatisfaction levels (Figs. 2 and 5), had no high expectations about any neighbourhood attributes, except security from crime.

With respect to neighbourhood facilities, Site #3 (Centre Town) was the only one which had a number of high expectations matched to high satisfaction (Fig. 3 vs Fig. 9). Site #8 (Riverside/Hurdman) was the least fortunate. It had a number of high expectations but it also experienced the lowest level of satisfaction as well as the highest level of dissatisfaction (Figs. 3 and 6 vs Fig. 9).

When we compared the general levels of expectation and satisfaction a very interesting phenomenon was observed. Expectations levels were higher than actual satisfaction levels in dwelling conditions and neighbourhood quality, especially the latter. Also, the expectation levels with neighbourhood quality was higher than those with dwelling quality.

|  | Range of Overall Satisfaction Levels | Range of Overall Expectations Levels |
|---|---|---|
| Dwelling | 48.5% - 77.6% | 57.0% - 80.6% |
| Neighbourhood | 32.6% - 77.9% | 63.8% - 92.2% |

This could suggest that people were more critical and demanding with respect to the "public" environment than they were with their own "private" environment.

On the other hand, our respondents had much lower expectations about

accessibility (walking distance) to neighbourhood facilities (Table 9), suggesting perhaps that in this automobile-oriented society people generally do not place great importance on proximity of neighbourhood facilities.

Two more types of expectations were analyzed: neighbouring and ownership. Neighbouring had to do with expectations of one's neighbours (Fig. 10). Site #1 (Riverview Park) and Site #8 (Riverside/Hurdman) came out as having the highest expectations. Interestingly, those two sites also had the highest expectations about neighbourhood quality but Site #1 experienced much greater satisfaction. Site #1 also showed significantly higher expectations about ownership (Fig. 11). This could be related to its high ownership (94.7%). But ownership alone did not seem to relate to high expectations, as clearly shown in the case of Site #8 which had practically no owners yet the residents placed great importance on ownership and its pride.

4.3.2 Environmental Stress

Expectation and satisfaction levels can be matched in four ways: high expectation with high satisfaction, or predictably good; low expectation with low satisfaction, or predictably bad; high expectation with low satisfaction, or frustrated hope; and low expectation with high satisfaction, or pleasant surprise. Environmental stress is perhaps highest where high expectations are not matched to high satisfaction levels.

In the last section (4.3.1) we gained some impressions of the mismatches. Although it was not possible to pair every expectation and satisfaction measure because of overlaps some pairing was feasible (Fig. 12). This pairing revealed an interesting and consistent pattern. Residents of low density housing types in a residential neighbourhood (Site #1) expected the most, in dwelling conditions, neighbourhood quality and facilities. By and large they were satisfied, too. It was a case of a "predictably good" housing environment. Residents in high density housing types in a residential neighbourhood (Site #8) also expected a lot from the total

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environment, but by and large they were much less satisfied. This was interesting because although this site had very high dwelling satisfaction levels all round, yet it had even more unmatched high expectations. These were "frustrated hopes." In Sites #3, 6 and 10, we found more than one high expectations matched to low satisfactions. These findings offered insights into our earlier analysis of satisfaction and dissatisfaction levels. In the dissatisfaction analysis we found that as far as dwelling conditions within each housing density group were concerned Site #2 (low density housing), 4 (medium density housing) and 10 (high density housing) were the poorest (Table 4 and Graph 4, supplemented by Table 1). Yet none of these had any high expectations. Consequently, there would not have been as high a level of stress in these sites as compared to, say, Site #6 where high expectations met with high dissatisfaction or low satisfaction.

Significant environmental stress was experienced in a number of specific housing attributes: privacy (Sites # 4 and 6), layout (# 1, 3 and 6), view (# 6), security (# 6), traffic safety (# 10), traffic noise (# 8), access to drugstores (# 10), quality and access community centres and clubs (# 8), quality of transit (# 3) and access to friends (# 8). The meaning of these will be explored in our Discussion Section.


4.4   Explanatory Variables

Two explanations were essential:   difference and similarities in satisfaction, dissatisfaction, and expectation between individual sites and groups of sites, and how these could be accounted for by the parametric and background variables.   But before we proceed we would note a number of intriguing general observations (see especially Graphs 1-6).

1. The ranges of satisfaction levels (more accurately the percentage of residents expressing high satisfaction levels) were generally higher than those of dissatisfaction levels in all three categories of housing attributes.

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|  | Range of Overall Satisfaction Level | Range of Overall Dissatisfaction Levels |
|---|---|---|
| Dwelling | 48.5% – 77.6% | 9.3% – 30.9% |
| Neighbourhood | 32.6% – 77.9% | 9.9% – 25.9% |
| Facilities: | | |
| quality | 58.7% – 92.5% | 2.0% – 38.3% |
| accessibility | 43.5% – 82.0% | 10.2% – 57.0% |

This confirmed the conventional wisdom that people generally express high satisfaction regarding their housing environment.

2.    Dwelling satisfaction levels were higher than neighbourhood satisfaction levels for most sites, suggesting perhaps people were less critical (for factual or psychological reasons) of their own "private" home environment than they were of the general "public" neighbourhood environment.

3.    In all but one site the satisfaction levels with the quality of neighbourhood facilities were higher than those with accessibility, suggesting that "walking distances" were still very unsatisfactory for most urban dwellers.

The most intriguing finding, however, was the performance of the medium density housing group.  It was consistently lower than the other two housing density groups, except maybe in the case of neighbourhood facilities.  To explore this phenomenon further the housing groups were reorganized, this time controlling for neighbourhood characteristics of housing type and land use mixes.  The following regrouping resulted.

|  | Low Density | Med. Density | High Density |
|---|---|---|---|
| One predominant housing type and residential use: | Site #1 | 4 | 8 |
| Mixed housing type and residential use: | Site #2 | 5 | 9 |
| Mixed housing type and mixed land use: | Site #3 | 7 | 11 |

We could not have a "one predominant housing type and mixed land use" group because we did not have a "low density housing" site with those characteristics (see also Section 3.2, Site Selection).

It became immediately obvious that medium density housing had indeed the poorest performance in all cases (Graphs 7-9), with some minor exception. How should this be explained? The research design called for control of housing type and land use mix. The 11 sites were chosen to reflect various combinations of housing density type (low, medium or high), housing mix (with one predominant housing density type or with mixed housing density types) and land use mix (residential or mixed). Two assumptions had been made: (i) housing density types were good indicators of "crowding", and (ii) as housing density or crowding increased quality of life (satisfaction levels) would decrease. However, our analysis of satisfaction and dissatisfaction clearly did not bear these assumptions out, at least not in the way they were constructed. The medium density housing group had the lowest dwelling satisfaction while some of the high density housing sites had the highest satisfaction levels. Explanations had to be sought elsewhere.

### 4.4.1    Crowding Variables

In the literature home and neighbourhood crowding are measured differently. In Section 3.5.3, we introduced the crowding variables, and in Section 3.6, we discussed the limitations of these variables in light of the literature review. Table 10 shows the values of the variables for the different sites.

With our small sample size we decided to examine one variable at a time instead of a multivariate analysis. This had the advantage of identifying single important explanatory variables and the disadvantage of overlooking the combined effects of a number of variables. However, our limited investigation should help future efforts at multivariate analysis with large data sets.

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At the dwelling level a number of explanatory variables were examined: Persons/Household, Persons/Bedrooms, and Rooms/Dwelling. The only probable explanatory variable of dissatisfaction was Persons/Bedroom A (Graph 10). Its reciprocal had also a good correlation to dwelling satisfaction (Graph 11). Persons/Bedroom was equivalent to the ratio P/R, suggested in the literature, i.e. population to the total number of rooms in the area (see Section 1.3.2). In that way, our findings confirmed what the literature had predicted, as well as demonstrated the weak explanatory power of the other variables. As far as privacy was concerned Persons/Household B (or its reciprocal) was also a reasonably strong indicator of satisfaction (Graph 12). It seemed that whereas room crowding was a good indicator of dwelling dissatisfaction, privacy also involved the number of people in the household.

With respect to neighbourhood quality a number of explanatory variables were investigated: Persons/Hectare, Dwellings/Hectare, Dwellings/Structure, and Perceptions of Crowding. No one variable showed any observable correlation with neighbourhood satisfaction or dissatisfaction. There was a hint that Dwellings/Structure (available only for the medium and high density housing sites because all low density housing sites had, by definition, a value of one) might be related to neighbourhood dissatisfaction (Graph 13). None of the others could explain the variations in satisfaction and dissatisfaction levels.

With respect to neighbourhood facilities, only one crowding variable was tested - "nonresidentialness". This variable correlated relatively well with facilities satisfaction for the low density and medium density housing groups, but not for the high density housing group (Graph 14).


### 4.4.2 Housing and Personal Characteristics

The age, price, size, mix, and ownership pattern of the housing stock (Table 11) were tested against the satisfaction and dissatisfaction levels. The only significant variable was the housing mix in the sample (Table 11, Mix B). In the low density housing group the mix between single-family and

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semidetached homes correlated to both dwelling and neighbourhood satisfaction - more single-family homes meant higher levels of satisfaction, and vice versa. In the medium density housing group, the mix between rowhouses/townhouses and lowrise apartments correlated somewhat with neighbourhood satisfaction - more rowhouses and townhouses meant high satisfaction levels (Graph 15). The other housing stock variables did not affect the satisfaction and dissatisfaction levels in any consistent way.

The personal/household variables examined included income, housing cost, household characteristics, ownership, length of residence intention to relocate, education, and disability (Table 12). Household income (percentage of people with income > $50,000) seemed to have some correlation with dwelling satisfaction (Graph 16). The only variable that showed some possilbe correlation to neighbourhood dissatisfaction was short length of residence (percentage of people with less than 10 years' neighbourhood residence) (Graph 17).

**SECTION 5  DISCUSSION AND CONCLUSION**

5.    **DISCUSSION AND CONCLUSION**

This Section is organized as follows.

5.1    Crowding measures

5.2    The strange case of "medium density" housing

5.3    Concluding remarks


5.1    Crowding Measures

Our findings about home crowding confirmed the existing literature on the subject:  Persons per Bedroom (P/R) is a reasonably good indication of dwelling satisfaction (or more appropriately, dwelling dissatisfaction).  But, there is an important qualification.  Our indicator worked well only when housing density types were controlled.  Increased home crowding corresponded with decreased dwelling satisfaction, and vice versa.  But the magnitudes of the corresponding increases and decreases were quite different for different housing density types, (as seen in Graphs 10 and 11).  As well, the ranges within which the crowding and satisfaction levels fluctuated were also quite different for different housing density groups, as shown in the following.

|  | Low Density Housing | Medium Density Housing | High Density Housing |
|---|---|---|---|
| range of home crowding (Persons/Bedroom) (from Table 10) | 0.77 - 1.16 | 1.00 - 1.10 | 0.88 - 1.53 |
| range of overall dwelling satisfaction (from Table 1) | 71.0% - 62.0% | 57.8% - 48.5% | 77.6% - 56.9% |

The highest satisfaction level with the low density housing group was 71.1%, obtained at 0.77 person/bedroom (Site #1); the medium density housing group was 57.8% at 1.00 person/bedroom (Site #7); and the high density housing group was 77.6% at 0.88 person/bedroom (Site #9).  It can be noticed immediately that Site #1 (low density) had lower home crowding yet less satisfaction than Site #9 (high density).  Similarly, Site #10 (high density) had the highest home crowding of all sites at 1.53 persons/bedroom, yet it also had a dwelling satisfaction level higher than, or at least comparable to

all the medium density housing sites which had much lower home crowding (between 1.00 and 1.10 persons/bedroom).

We did not find any good crowding measure that correlated to neighbourhood satisfaction levels. This confirms Gove and Hughes' (1983) Chicago study which found neglible relationship between neighborhood densities and social pathologies. We had some indication that satisfaction level was positively related to long periods of residence (Graph 15). But this was only circular logic - people stay longer in a more satisfied neighbourhood. As such, it does not offer any policy insight. There was weak indication that the number of dwelling units per hectare might be related to neighbourhood satisfaction. For instance, the medium density housing sites, as a group, had generally higher neighbourhood densities (Table 10, Neighborhood Crowding, Dwelling/Hectare B) as well as lower neighbourhood satisfaction levels (Table 2 and Graphs 2 and 8, especially Graph 8). But within the medium density housing density group this relationship broke down. It seems, therefore, the relation between physical crowding and housing satisfaction is stronger at the dwelling scale than at the neighbourhood scale.

This brings us to an interesting, and possibly non-trivial semantic issue --- in our study the medium density housing sites actually had greater neighbourhood density than those at other sites. We had used two essential measures of neighbourhood density (crowding): the number of dwelling units per residential hectare and the number of dwelling units of a particular housing density type per hectare of residential land occupied by that housing density type (Table 10, Neighbourhood Crowding, Dwellings/Hectare A and B). It became awkward to talk about medium density housing sites, while at the same time recognizing that they actually had neighbourhood densities higher than those at the high density housing sites.

Of course, we had been focusing on the existing housing stock in urban areas. Our medium density housing types included triplexes, rowhouses, converted houses, three and four storey apartments. Each of these housing types meant very different neighbourhood density. New development in suburban areas are usually of "simpler" housing mix and have resultant neighbourhood densities lower than those obtained in this study.

Also, our neighbourhood boundaries were more intuitive than analytic. They were based on Census Enumeration Area boundaries and impressionistic windshield observations. But we did cross-check our parametric variables at the site level with those at the larger Census Tract level, and found that they were either consistent with each other, or their differences did not alter our explanation of the findings about satisfaction and expectation levels. Besides, Census Tract boundaries were no guarantee of "organic" neighbourhoods. We did, in our interviews, ask our respondents to draw the boundaries of their neighbourhood (Q. 14), hoping that this Lynchian approach (Lynch, 1960) would shed light on the "real" neighbourhood boundaries. But most respondents declined to draw (after an hour-long interview), and those who complied produced, as expected, very inconsistent boundaries.

However, despite the above caveats, the question there still remains: Are the categories of low, medium, and high density housing types meaningful when we talk about home and neighbourhood crowding? There are several sets of urban planning conventions about home and neighbourhood crowding, one confusing the other.

It must be said that density standards serve many other purposes, such as in the calculation of development costs, establishment of infrastructure capacity and delineation of service catchment areas. But the planning profession certainly uses them to deal with the effects of crowding. They have a set of tacit assumptions about the relationship between housing types and household characteristics at the dwelling level, and between housing types, population size and number of dwelling units at the neighborhood level. Based on such assumptions housing types (single-family houses, rowhouses, townhouses, lowrise apartments, highrise apartments) are used to indicate home and neighborhood densities (low, medium and high).

For instance, the Official Plan of the City of Kingston combines dwelling units, population size, and housing types in its definition of neighborhood density levels (1982, Sec. 17-29).

Low density =    "maximum of 27 dwelling units per hectare ... Population may average about 71 persons per net hectare."

Although no housing type was prescribed it goes on to state that these areas are "intended primarily for families with children."

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Medium density =   "maximum of 69 dwelling units per hectare with an average of three

bedrooms per unit.   Population may average about 143 persons per

hectare."

"The predominant type of residential buildings will have to be

townhouses, rowhouses, other similar accommodation, with common open

areas or very small private lots and apartments."

"... predominantly an adult population with a less than average

number of children per dwelling."

High density =    "average about 291 persons per net hectare ... The maximum density

allowed shall be 123 dwellings per net hectare, and an average of 2

bedrooms per unit."

"Urban apartments are allowed along the main arteries.   No new

single or two-family dwellings are allowed ..."

"The type of population expected .... is primarily the adults,

students, and families with pre-school age children."

The following very different sets of densities have been suggested by various authors and agencies as being reasonable under "normal" practice and accepted standards for circulation, open space, and community facilities (Lynch and Hack, 1984).   They all make assumptions about housing types with "typical" design and layout characteristics and land requirement, as well as "typical" occupancy in terms of household socioeconomic and cultural characteristics.

RESIDENTIAL DENSITY STANDARDS (A)
Source:  Lynch and Hack (1984: 466)
units per acre (units per hectare)

| Dwelling Type | Net Density | | Neighbourhood Density | |
|---|---|---|---|---|
| Single-family | up to 8 | (20) | up to 5 | (12) |
| Zero lot-line detached | 8-10 | (20-25) | 6 | (15) |
| Semidetached | 10-12 | (25-30) | 7 | (18) |
| Rowhouses | 16-24 | (40-60) | 12 | (30) |
| Stacked townhouses | 25-40 | (60-100) | 18 | (45) |
| Three storey walkup apts. | 40-50 | (100-115) | 20 | (50) |
| Six storey elevator apts. | 65-75 | (160-190) | 30 | (75) |
| Thirteen storey elevator apt. | 85-95 | (215-240) | 40 | (100) |

RESIDENTIAL DENSITY STANDARDS (B)
Source:  Urban Land Institute (1960: 87)
units per acre (units per hectare)

| Dwelling Type | Net Density | |
| --- | --- | --- |
| Single-family | 2-6.5 | (5-6) |
| Semidetached | 8.7-10 | (21-25) |
| Rowhouses (2 storeys) | 16.3-20.4 | (40-50) |
| Garden apartments (2 storeys) | 15-25 | (37-62) |
| (3 storeys) | 25-35 | (62-86) |
| Twelve storey elevator apartments | 50-85 | (124-210) |

RESIDENTIAL DENSITY STANDARDS (C)
Source: Chapin and Kaiser (1979);
based on APHA Committee on the Hygiene of Housing (1960: 39)
units per acres (units per hectare)

| Dwelling Type | | Net Density | |
| --- | --- | --- | --- |
| | | Desirable | Maximum |
| Single-family | | 5 (12) | 7 (18) |
| Semidetached | | 10 (25) | 12 (30) |
| Rowhouses | | 16 (40) | 19 (47) |
| Multifamily: | 2 storey | 25 (60) | 30 (75) |
| | 3 storey | 40 (100) | 45 (115) |
| | 6 storey | 65 (160) | 75 (190) |
| | 9 storey | 75 (190) | 85 (215) |
| | 13 storey | 85 (215) | 95 (240) |

RESIDENTIAL DENSITY STANDARDS (D)
Source: Chapin and Kaiser (1979: 455 and 456)
units per acre (units per hectare)

| Dwelling Type | Philadelphia | Baltimore | Roanoke |
| --- | --- | --- | --- |
| Single-family and semidetached | <20(50) | 1-5(2.5-12) | 1-6(2.5-15) |
| Rowhouses (multi family low density) | 20-39(50-96) | 10-14(25-35) | 7-10(18-25) |
| Two-three storey apts (multifamily, medium density) | 40-59(100-145) | 15-20(37-50) | 11-20(27-50) |
| Highrise apts. (multi-family rowhouses) | >60(148) | 25-35(60-82) | 21-40(52-100) |

These standards have subsumed in them the "proper" relation between housing types
and home and neighbourhood crowding at different times and localities.  They are the
embodiment of professional experience and insight about what people want and developers

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build. Stereotypical perceptions about housing types and residential density are intertwined. Each housing type conjures up specific visions of shape, size, bulk, height, and relationship to the ground and to one another. A single-family dwelling can be a one-bedroom bungalow or a huge mansion, but it is the exception that proves the rule. Everybody "knows" what a singe-family house is. Norms exist.

Conventional wisdom has the range of net density standards set between 2.5 and 300 dwellings (families or households) per hectare (Lynch and Hack, 1984). A density lower than 2.5 dwelling per hectare (or one dwelling per acre) produces expensive and scattered development. The living environment may be pleasant in itself but it leads to excessive sprawl, a costly transport system, and less accessible community facilities. On the other hand, areas with a density higher than 300 dwellings per hectare can be built only with the loss of open space and substandard living conditions.

According to Lynch (1971: 317), the character of development may change according to some density thresholds. At a density of about 30 dwellings to a hectare, problems of noise control and privacy begin to emerge. On the other hand, a density less than that would mean more difficulty in providing common maintenance of grounds or group facilities, such as nurseries or laundries within very close range of the dwelling. Above 50 dwellings per hectare and we may find it increasingly difficult to provide outdoor space and direct access from all the units to the ground, and surface parking may become more difficult. At 110 dwellings per hectare, we begin to lose "human scale." At 200 dwellings per hectare, we will feel shortage of space for parking, landscaping and recreation. But at the same time, certain urban characteristics may emerge, such as a greater variety of accessible activities and facilities. At above 250 dwellings per hectare, we are likely to find problems about unit size and circulation congestion. These are very general clues to the quality of the residential environment associated with different kinds of housing types and densities, and they are dependent on culture, lifestyle, and expectations.

In North America, much about density standards used in relation to crowding is based on the idea of "privacy through distance," such as window-to-window distance and set-backs from the street and property line. It is obvious that these prescribed

distances can only be very crude generalizations, and innovative design can provide as much privacy as that achieved through separation distance. As technologies in transportation and utilities progress and as living habits change such standards may become inappropriate, and the assumptions about relation between housing type and home and neighbourhood crowding may no longer be valid.

Our findings cast doubts on the relevance of the conventional categories of low, medium and high density housing types in measuring the quality of residential life. First of all, we found that the persons/bedroom was the only good predictor of dwelling satisfaction, after controlling for housing density types. But persons/bedroom itself was not correlated to any housing type or neighbourhood density (by population or dwelling). It was not even related to the number of bedrooms in the dwelling or number of persons in the household.

Second, we could not find any neighbourhood crowding measure that could predict neighbourhood satisfaction. Neighbourhood satisfaction did not correlate, positively or negatively, to any dwellings/hectare variables or housing density types. The so-called medium density housing sites had the lowest satisfaction levels at both the dwelling and neighbourhood level.

Together, these two findings suggest that when it comes to the relation between crowding and quality of life (livability or habitability) both housing type and persons/bedroom must be used simultaneously. A new dimension is therefore added to the persons/bedroom measure – the standard predictor of home crowding in the literature. It should be housing-type-specific. As Lee (1968, p.359) insists, collective environmental perception is often based less on "people like us" than on "people who live in houses like ours."

Our study had begun by using a set of housing types (single-family houses, duplexes, triplexes, rowhouses, townhouses, lowrise apartments, medium-rise apartments, and highrises) interchangeably with both dwelling and neighbourhood density types (low, medium and high), in much the same way as the planning profession has been using them. Our findings suggest they are not interchangeable. Some sites with townhouses and three-to-four storey apartments (or the so-called medium density housing sites) actually had more dwellings per hectare than those sites with the highrise apartments.

(Table 10, Neighbourhood Crowding, Dwelling/Hectare A and B)  This means that it is no longer safe to assume that housing types and housing densities (both at the dwelling and neighbourhood level) are twinned.  In discussing "crowding" and its effects on the quality of life of the residents it may be more profitable to classify housing types as lowrise detached, lowrise attached, midrise and highrise, instead of calling them low density, medium density, and high density.

In our study, we found that the most intriguing housing types were the "middle" group of triplexes, rowhouses, townhouses and three-four storey apartments.  For convenience we will still refer to them as the medium density housing group in the next section.

## 5.2    The Strange Case of "Medium Density" Housing

One of the most important goals which was driving the study was the production and delivery of affordable housing.  The main assumption was that housing could be made more affordable by increasing residential density.  The fear was that increasing density might bring down quality of life (residential satisfaction).  Therefore, a major task of this study was to identify where a balance could be attained --- the highest possible residential density which could still provide an "acceptable" level of residential satisfaction.

Conventional wisdom has assigned medium density housing types (especially rowhousing and terrace housing) as "favourite" candidates for affordable housing experiments.  Our findings cast doubt on these conventional favourites, at least upon first examination.  The medium density housing types provided consistently lower housing satisfaction at both the dwelling and neighbourhood level, compared to other housing density types.  This became especially disconcerting when compared to the highrise apartments which have always been considered a "bad" solution for affordable housing.  Site #10 was the worst among the highrise sites yet it did better than, or as well as any of the medium density housing sites, despite the fact that it had also the highest home and neighborhood crowding, and lowest dwelling price and "quality" (see Tables 10 and 11).

Do these findings suggest that the medium density housing types are not good

candidates for affordable housing? There are several important qualifications about our findings. First, they were about dwelling and neighbourhood densities that were much higher than those normally contemplated for affordable housing, and should therefore be considered as "extreme" scenarios. Second, the sites were all in very urban areas, unlike the more "suburban" sites where most of the affordable housing experiments have been conducted. Third, we focused on the middle income segment of the population, and the sites and the residents were probably not representative of low-income housing. Fourth, and perhaps the most crucial, our findings were about existing housing stock which was not designed, nor even intended, for affordable housing, with some exception at Site #6 (Lower Town).

The most important message of this study to those who want to use the medium density housing prototypes for affording housing is : Don't copy the existing stock. But it offers more than a negation. It sheds light on the advantages and disadvantages of medium density user prototypes, both in comparison to other types and among themselves. The findings should help us identify trade-offs in housing attributes: What to improve and what to sacrifice and still maintain an acceptable level of user satisfaction. In short, they should help us explore the essential question of affordability versus habitability.

Let us begin with the most obvious, that medium density housing types had been shown to provide generally less residential satisfaction than detached and semidetached homes and highrises. Improving their satisfaction levels would, in most cases, incur additional cost which would, in turn, make them less affordable. What, then, are the possible trade-offs that can improve habitability without reducing affordability? Where to invest for maximum returns?

5.2.1 Privacy

Loss of privacy in the home is perhaps the most significant effect of crowding. In our study, the medium density housing sites, as a group, had significantly lower levels of satisfaction (Table 1), compared to the other housing types. An interesting point was that the satisfaction levels within the group were very similar, regardless of whether they were primarily rowhouses and lowrise apartments (Site #4, Sandy Hill),

triplexes, rowhouses and walkup apartments (Site #5, the Glebe), garden apartments, rowhouses and cluster housing (Site #6, Lower Town), or old and large three-four storey apartment complexes (Site #7, Centre Town).

As expected, the parametric values, "Persons/Bedroom A" (Table 10), were very comparable within the medium density housing group (from 1.00 person per bedroom to 1.10 persons per bedroom, Table 10). However, this finding cannot be used to argue that an improvement in the persons/bedroom ratio would increase privacy. First, while the parametric variable, "Persons/Bedroom", had a good fit with general dwelling satisfaction levels (see Graph 11), it correlated less well with privacy which fluctuated somewhat differently from the other dwelling attributes, especially among the high density housing group (see Graph 1). Second, it was established in Section 5.1 that the explanatory power of this parametric variable was housing-group-specific. It was true that fluctuations in dwelling crowding corresponded generally to variations in dwelling satisfaction, but the magnitude of the corresponding changes were quite different for the different housing groups. The transfer of lessons from one housing group to another would be risky. This is well recognized in the literature. Privacy can be "a state of solitude or small-group intimacy or ... a condition of anonymity or reserve." (Westin, 1967, p. 7) It has to do with the freedom to communicate or not to communicate (Proshansky et al., 1970). People look for different kinds of privacy in different housing types. Third, within the medium density housing group the fluctuations in both crowding levels and privacy satisfaction were too small to support the argument that decreasing "persons/bedroom" would increase privacy satisfaction.

An examination of resident expectations showed that stress produced by lack of privacy, as measured by the discrepancies between expectations and satisfaction levels, was higher in the medium density housing group, especially in Site #4 and 6 (Fig. 12). Maybe this was a reflection of the ambiguity of expectations that people had with respect to medium density housing types in a highly urban situation - a tug of war between anonymity and engagement.

Site #6 (Lower Town) was particularly interesting because 100% of its residents considered privacy to be important (Table 7). At the same time, it had the largest average household size (2.7) within the medium density housing group, though not by a

wide margin (Table 10, Persons/Household B). It also had the highest proportion of rowhouses and townhouses in the sample as opposed to apartments (Table 11, Mix B), and the highest proportion of post-1971 housing in the neighborhood (Table 11, Age, post-1971) reflecting partly the fact of recent gentrification and development of social housing projects. This profile is suggestive. What might have affected privacy here could have been the larger household size. The conventional solution of newer and ground-entry housing (rowhouses and townhouses) did not seem to help. The site seemed to have all the promises of territoriality, natural surveillance, image, and milieu advocated by Oscar Newman (1972), yet it offered very low satisfaction in privacy and other dwelling attributes.

Site #4 (Sandy Hill) had the lowest privacy satisfaction of all sites (Table 1). This was a neighbourhood with a large student and transient population. It had the highest home crowding within the housing group (Table 10, Persons/Bedroom). The average dwelling price in the neighbourhood was the lowest in the housing group (Table 11, Price, Dwelling Price). Here, at least, was some evidence that within the medium density housing group home crowding, as measured by the number of persons per bedroom, and general dwelling quality, as reflected in dwelling price, could have affected privacy adversely.

5.2.2 Dwelling Conditions

Gove and Hughes (1983, p. 229) find that the effects of home crowding is slightly less in single units than in adjacent units (duplex, rowhouse, or triplex), and slightly less in adjacent units than apartments. Our findings can only confirm the former. Our rowhousing and three-four storey apartment sites had offered uniformly lower dwelling satisfaction than the single units as well as the highrise apartments.

Site #4 (Sandy Hill) did not have only a privacy problem, as discussed in the last Section, it also yielded the highest dissatisfaction in the other dwelling attributes, especially storage space, parking and sunlight (Table 4). There was a clear bipolar distribution pattern in which the residents were either very satisfied or dissatisfied (Table 1 versus Table 4). This site was in an area associated with university student housing, possibly with absentee landlords. The sample had a large

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proportion of lowrise apartments, though not as large as in Site #7 (Centre Town) (Table 11, Mix B), the lowest household income (Table 12, Income, Household Average B; Household High; and Household > $50,000), and the highest housing cost (Table 12, Housing Cost). As well, the neighbourhood had the lowest average dwelling price (Table 11, Price, Dwelling Price) and fewest post-1971 buildings (Table 11, Age, Post-1971). It could be argued that the older, cheaper and less looked-after dwellings, together with the low income of the residents contributed to the dissatisfaction.

The most intriguing case, however, is Site #6 (Lower Town). It yielded the lowest satisfaction levels in most of the interior conditions: room size, home size, storage space and number of bath rooms (Table 1) - much the same as in Site #4. But, unlike Site #4, we have here the irony of the newest housing stock (Table 11, Age, post-1971) and the largest proportion of ground-entry housing units (Table 11, Mix B), producing the lowest dwelling satisfaction. The new housing stock might explain the high satisfaction level in appearance, but not the very poor satisfaction levels regarding sunlight and views. The only other dwelling attribute on which this site performed relatively well was the number of bedrooms. The problem with Site #6 was more about the amount of space than the number of rooms and their design and layout.

Based on the findings it would seem logical to trade-off some "appearance" for better conditions in other dwelling attributes. However, we also noted that the residents at this site carried higher expectations on practically all dwelling attributes, including appearance (Table 7). The irony was that it actually had the lowest neighbourhood housing density among the medium density housing sites (Table 10, Neighbourhood crowding, Dwelling/Hectare B) and the highest neighbourhood satisfaction (Table 2). It is, therefore, entirely possible that dwelling satisfaction could be improved not by adding more bedrooms but by increasing the room size and storage space. If the consequent increase in neighbourhood crowding on account of increased dwelling sizes were to reduce neighbourhood satisfaction (a point not supported by our findings' see Sections 4.4.1 and 5.1) there were large margins in both housing density and neighbourhood satisfaction to accommodate any shortfall. This trade-off between dwelling and neighbourhood satisfaction is perhaps a useful strategy in the location and design of medium density affordable housing.

Another intriguing observation about Site #6 is that while its expectation level of a ground-level entrance was the highest among all the sites, (compared horizontally across the sites in Table 7), this level was actually the lowest when compared to its other expectations, with the only exception of a spare bedroom (compared vertically along the housing attributes for Site #6 in Table 7). In fact, expectations of ground-level entrance was always low for any site. This puts the current emphasis on ground-level entrance, and hence the favourite affordable housing prototypes of rowhouses and townhouses, into perspective with other dwelling considerations. Site #6 certainly deserves to be studied in greater detail in order to gain insight on the appropriate housing and tenure types, and the acceptable trade-off between number of rooms and size of rooms and dwelling in affordable housing.

There were other dwelling attributes within the medium density housing group that showed interesting characteristics. Site #7 (Centre Town) had the lowest parking satisfaction (Table 1). This was more a question of the age and design of the buildings. Practically none of the old apartment complexes offered on-site parking. Actually this spilled over into low satisfaction about neighbourhood parking as well. The lack of parking is an issue unlikely to be overlooked in affordable housing schemes.

Finally, Sites #5 and 6 had extremely low satisfaction levels in "views looking out" (Table 1). In fact, site #6 had the highest dissatisfaction level (Table 4). This was strange considering the fact that this site had been the most gentrified and had the newest housing stock. One explanation could be that the layout and orientation of the dwellings did not take advantage of the view offered. This would have been particularly disappointing as the residents at this site had the highest expectation of a good view (Table 7).

5.2.3 Neighbourhood Quality

It was clear the Site #7 (Centre Town) was by far the worst within the medium density housing group, and indeed among all the sites (Tables 2 and 5). The satisfaction levels were uniformly low, especially traffic noise, air quality, building maintenance, security from crime, and traffic safety. All these reflected its location

on a busy street (a lot of through traffic and little commerce) in an old and transient part of the inner city (Appendix B, Profile #7). By contrast, Sites #5 (The Glebe) and #6 (Lower Town), both in quieter locations and away from major thoroughfares, offered high neighbourhood satisfaction (Appendix B, Profiles #5 and 6).

Among all the neighbourhood attributes parking for oneself and one's visitors was the item that generated the lowest satisfaction, as well as the highest dissatisfaction for practically any sites in the study (Tables 2 and 5). Partly, this could be attributed to the "urban" nature of the sites (as opposed to suburban). Unfortunately, we did not have an expectations measure to help us evaluate the stress this could have caused.

In the literature noise has been considered a very important effect of crowding. For instance, Ittelson et al. (1974, p. 265) consider this the most common urban "stressor"; Appleyard and Lintell (1972) refer to its effect on social relations; and Southworth (1969) talk about the distress and delights of the "sonic environment." In our study the extremely low level of satisfaction about traffic noise at Site #7 (Centre Town) was predictable given its location. The problem with "noise from neighbours" at Site #4 (Sandy Hill) was more a function of student presence. But it seemed that residents in the medium density housing group as a whole had lower expectations about noise than about other neighbourhood attributes (Table 8). In fact, they had generally lower expectations on all neighbourhood attributes than those living in the low and high density housing sites. Furthermore, there was no relation between neighbourhood densities and neighbourhood noise problems (Table 2 versus Table 10, Neighbourhood Crowding). All these suggest that there could have been some built-in psychological discounting by those living in medium density housing to expect less noise satisfaction.

The above conjecture, however, could not be made with respect to expectations about security from crime and traffic safety. These were quite comparable across all the sites, with security from crime being considered the most important of all neighbourhood attributes (Table 8). This confirms Kasl and Harburg's (1970) finding that people will tolerate inadequacies in their neighbourhood if it is at least safe. Our study had an interesting finding: both the highest and lowest levels of

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satisfaction about security were found within the medium density housing group (Site #5 and Site #7). Site #7 (Centre Town) gave the least satisfaction, and therefore, the greatest stress. This followed the general pattern of low satisfaction levels at this site, explainable by its bad location and old housing stock. The exceptionally high satisfaction level at site #5 (The Glebe), on the other hand, could be attributed to its good location close to the main commercial street (Bank Street) where the busy street activity helped to improve both the perception and reality of security from crime (a kind of Jacobsian effect) (see also Appendix B, Profile #5). Another telling observation was the usually large gap between expectation and satisfaction about security from crime (Tables 2 and 8). Satisfaction fell far short of expectation at every site in the study, some by as much as 70 percentage points (Site #7). This could have been a consequence of the "urban" nature of the sites. But there seemed to be a general wariness in all the people interviewed about the "increasing problems of crime," which had nothing to do with the level of home or neighbourhood crowding. Regardless of whatever the cause of such perceptions and whether they reflected reality, the locational choice, design and layout of any affordable housing development must be geared to increasing perceived and real security from crime.

Another interesting observation about neighbourhood quality was the satisfaction with the "type of neighbours." (Table 2) The "neighbouring" expectations at Site #1 (Riverview Park), which was the most suburban-like and homogenous of all the sites in the study, was predictably high (Fig. 10), and the residents also received high satisfaction. This confirms Gans' (1967) idea of the preferred homogenous and compatible neighbourhood. But the surprise was Site #5 (The Glebe) and #6 (Lower Town) which stood out clearly above all other sites in the study. This was a significant and interesting piece of information, especially in the case of Site #5.

Site #5 was in The Glebe, a gentrified neighbourhood with a good "address", and the residents found their neighbours to be most agreeable. There was, however, an interesting twist. Site #5 was in the same general neighbourhood as Site #2 (The Glebe), and residents satisfaction at Site #2 about their neighbours was the lowest among all the sites. Site #2 was low density housing type and Site #5 was medium density housing type. It was established in Section 4 that medium density housing

sites yielded uniformly lower satisfaction levels in dwelling and neighbourhood attributes. The only exception was Site #5, and only in the realm of noncrowding specific neighbourhood attributes (mainly security from crime and traffic safety) and in the type of neighbours (Table 2). One possible explanation was physical micro-location differences (see Appendix B, Profiles #2 and 5). Site #5, the medium density housing site, was closer to the main commercial street. This had the effect of reduced noise satisfaction but increased security satisfaction. Another possible explanation was social location. The social status of the address (The Glebe) might have been more satisfying to the medium density housing residents (most of whom were also renters). They probably saw the gentrifiction trend as an indication that the neighbourhood was going up-scale and the address was conferring a higher social status on them. On the other hand, the single-family housing residents (most of whom were owners) might take the presence of medium density housing (especially apartments) and rental properties as indications that the neighbourhood and neighbours were less desirable than what they could have been. This confirms Gove and Hughes' (1983, p. 212) observation that an "undesirable" neighborhood tends to exacerbate the effects of crowding. It is certainly worthwhile to examine the similarities and differences between Sites #2 and #5 in much greater detail in order to gain insights on the location and design of higher density affordable housing that will also deliver high neighbourhood satisfaction.

5.2.4 Facilities

There were two satisfaction measures: quality and accessibility. The medium density housing sites, as a whole, offered higher levels of satisfaction, especially in the quality of the facilities (Table 3). Within this group satisfaction levels had probably little to do with dwelling characteristics. "Nonresidentialness" of the neighbourhood (Table 10, Land Use, "Nonresidentialness") could best explain the quality and accessibility to facilities. This was forcefully illustrated when we considered the near identical fit of satisfaction levels in sites that were in the same neighbourhood --- Sites #2 and #4 (The Glebe), and Sites #3, #7 and #11 (Centre Town).

Excluding walking distances to work and friends the medium density housing sites

generally had lower expectations about accessibility (Table 9) and higher satisfaction levels (Table 3) than the low and high density housing sites. This suggests that it might be acceptable to trade-off proximity to services for some desirable neighbourhood quality. In this trade-off proximity to convenience stores and transit stops which can be considered general facilities should remain, while distances to drugstores, churches and community facilities which are much more personal services can be relaxed (see Table 9).

5.2.5 Lessons for affordable housing

Medium density housing has been the preferred option for affordable housing. Our study showed that the existing medium density housing stock offered generally the lowest satisfaction levels in both dwelling conditions and neighbourhood quality. Further examination revealed a number of interesting traits that actually provided some insights into improving habitability within the context of affordability.

All medium density housing types in our study -- triplexes, rowhouses, townhouses and lowrise apartments --- provided low satisfaction of privacy in the home. Partly it was a function of dwelling crowding, as measured by the number of persons per bedroom in the household. But our findings cast doubt on the assumption that ground-entry housing types, such as rowhouses and townhouses, provide better privacy and higher dwelling satisfaction than highrise apartments. Site #6 (Lower Town) is an interesting case for further investigation.

While our findings confirmed the conventional wisdom that older, cheaper and less-looked after dwellings, and low-income residents all contributed to lower dwelling satisfaction, they raised questions about the efficacy of the newer and better designed housing stock, most of which were rowhouses and clustered townhouses. Our findings suggested that it might be more effective to improve the size of rooms and storage space than to increase the number of rooms, and the resultant larger dwelling size or the elimination of ground-entry need not affect adversely neighbourhood satisfaction. Most people in our study considered ground-entry to be less important than size, layout, sunlight, air and even appearance. Again, site #6 (Lower Town) deserves further detailed study.

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We found neighbourhood satisfaction could depend much on micro-locational factors, especially in relation to local traffic pattern. Noise privacy is featured higher in the literature, but considered the least important by our residents, especially by those living in medium density housing. Their main problems were security from crime and, to a lesser extent, traffic safety. There was some indiction that satisfaction with one's neighbours and reputation of the address could be related to general neighbourhood satisfaction. For this, the two sites in the Glebe (Sites #2 and #5) should be studied in greater depth.

The medium density housing sites gave better satisfaction about neighbourhood facilities. Furthermore, people did not expect walking distances. Maybe locational proximity to services such as drugstores, churches and community facilities can be traded off for other more important neighbourhood qualities.


## 5.3 Concluding Remarks

This study has yielded a wealth of interesting data. Our short analysis has identified the more immediately obvious phenomena and their explanations. A lot more can be deduced or inferred from the data (refer especially to Appendices B and C).

The methodological and practical limitations of the study notwithstanding (See Section 3.6), our findings are very suggestive and, if validated by further and more rigorous research, can have a number of very significant policy and planning implications.


1. Generally speaking, people have higher expectation (demands) and lower satisfaction levels for neighbourhood quality than for dwelling conditions. This implies that people expect more from the public areas which others (government and neighbours), control than from the private area which they themselves control.

2. Within the home, privacy is the most important; in the neighbourhood, security from crime is the most important.

3. Walking distances to neighbourhood facilities are the least important among people's expectations, despite all the planning emphasis to locate housing and

neighbourhood facilities together.

4. Quality of life both at the home and neighbourhood scale seem to be related more to housing types than to any measure of crowding. Of these, the so-called medium density housing give the lowest satisfaction levels. Moreover, the shortfall between expectation and satisfaction is greater among residents in these housing types than among residents of low and high density housing types.

5. Ground-level entry is among the least important of housing expectations. This is a particularly significant finding because ground-level entry housing types such as rowhouses and townhouses are the current favourites for affordable housing.

6. Increasing the size of rooms and storage space seems a better way to improve livability than increasing the number of rooms or appearance of the dwelling.

7. For residents of townhouses and apartments a "good address" enhances the satisfaction with "neighbours" and "security". On the other hand, single-family residents become less satisfied with rowhouse and apartment neighbours in their midst, which is typical NIMBY.

8. Highrises are rather acceptable answers for affordable housing in terms of the dwelling and neighbourhood satisfaction levels they offer.

Some of the above implications are disconcerting in the sense they do not support the current wisdom on affordable housing types. The study design and execution can, no doubt, be challenged. But the strong and consistent indication of problems with the existing medium density housing stock in urban areas cannot be ignored. There are also glimpses of hope that livability can be improved without sacrificing affordability.

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MAP 1

MAP 1:
SITE LOCATIONS
CITY OF OTTAWA

not to scale /north
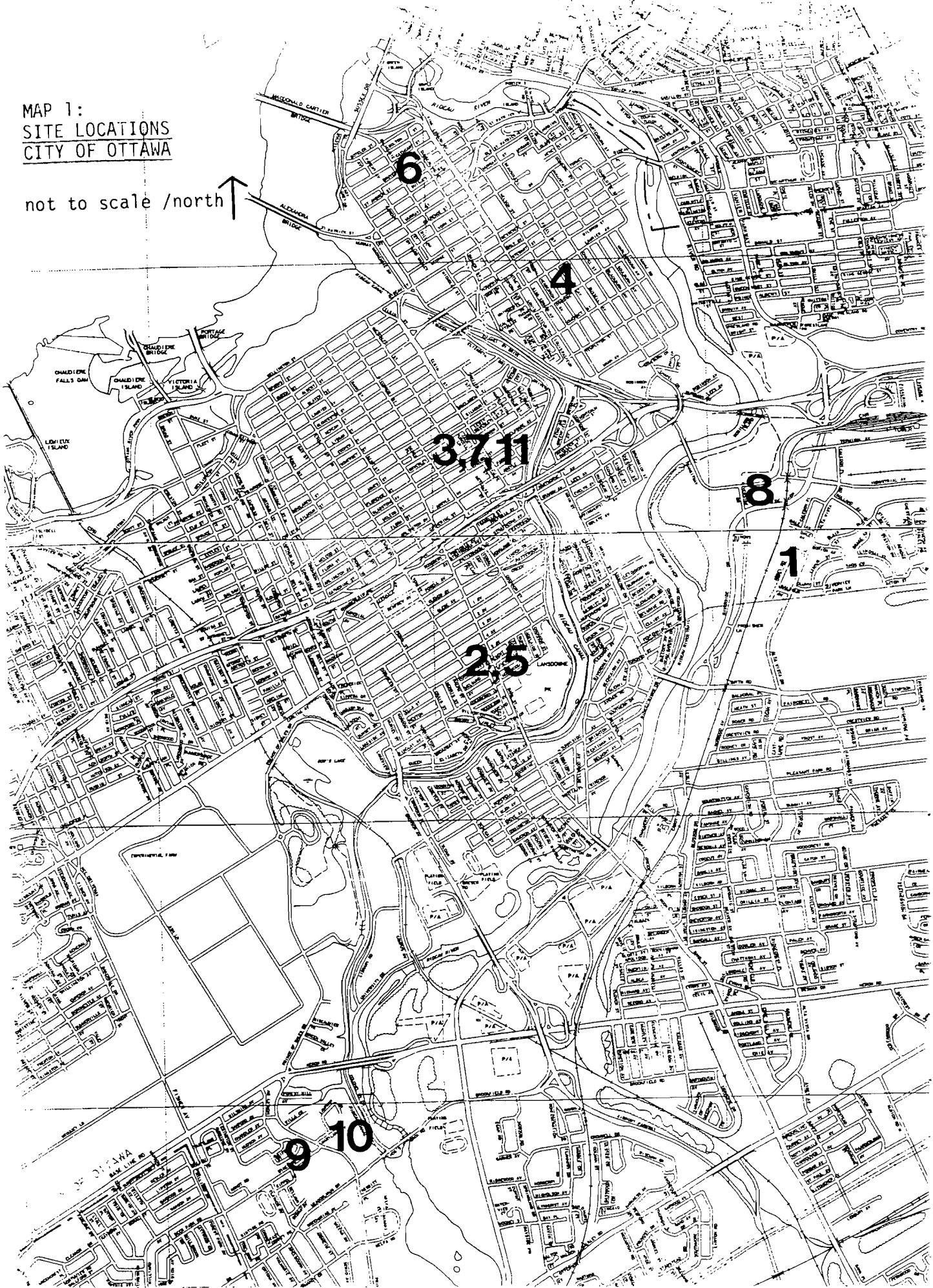
**TABLES**

# Table 1: Dwelling Satisfaction (%)

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| Q.3.7 PRIVACY | 89 | 81 | 83 | 60 | 64 | 64 | 65 | 75 | 68 | 73 | 88 |
| 3.1 room # | 74 | 94 | 75 | 75 | 56 | 76 | 85 | 90 | 89 | 53 | 66 |
| 3.2 room size | 63 | 75 | 67 | 70 | 72 | 47 | 70 | 90 | 73 | 73 | 78 |
| 3.3 home size | 68 | 75 | 75 | 75 | 67 | 53 | 75 | 85 | 89 | 57 | 72 |
| 3.4 storage | 37 | 25 | 50 | 50 | 44 | 29 | 55 | 85 | 68 | 40 | 44 |
| 3.5 bath # | 53 | 63 | 75 | 45 | 61 | 29 | 60 | 70 | 74 | 60 | 61 |
| 3.6 layout | 74 | 75 | 83 | 75 | 78 | 71 | 70 | 95 | 89 | 67 | 88 |
| 3.9 parking | 95 | 69 | 58 | 33 | 56 | 53 | 23 | 53 | 94 | 38 | 64 |
| INTERIOR SCORE | 66.3 | 68.0 | 69.0 | 60.4 | 62.0 | 51.1 | 62.6 | 81.1 | 82.3 | 55.4 | 67.5 |
| 3.10 appearance | 68 | 56 | 67 | 45 | 50 | 65 | 35 | 70 | 58 | 54 | 44 |
| 3.11 sun | 100 | 50 | 67 | 55 | 83 | 43 | 60 | 70 | 68 | 67 | 89 |
| 3.12 view | 79 | 38 | 75 | 45 | 17 | 19 | 45 | 55 | 74 | 60 | 89 |
| EXTERIOR SCORE | 82.3 | 48.0 | 70.0 | 48.3 | 50.0 | 42.3 | 46.7 | 65.0 | 66.7 | 60.3 | 74.0 |
| OVERALL SCORE | 71.1 | 62.0 | 69.2 | 56.8 | 54.4 | 48.5 | 57.8 | 76.3 | 77.6 | 56.9 | 69.5 |

Source: Questionnaire Survey, Q.3
Method: See Section 3.5.1

## Table 2:  Neighbourhood Satisfaction (%)

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Q.4.9<br>NEIGH.TYPE | 94 | 69 | 83 | 74 | 100 | 94 | 70 | 88 | 83 | 77 | 88 |
| 4.6  traf. noise | 58 | 75 | 45 | 50 | 53 | 65 | 15 | 40 | 42 | 27 | 39 |
| 4.5  neigh. noise | 95 | 63 | 67 | 40 | 53 | 71 | 50 | 60 | 63 | 47 | 56 |
| 4.8  parking | 74 | 0 | 25 | 10 | 18 | 35 | 5 | 58 | 84 | 27 | 22 |
| 4.10 air | 79 | 56 | 67 | 56 | 65 | 63 | 21 | 74 | 63 | 85 | 44 |
| 4.11 odour | 74 | 88 | 67 | 53 | 56 | 76 | 45 | 45 | 56 | 73 | 33 |
| CROWDING-<br>SPECIFIC SCORE | 76.0 | 56.4 | 54.2 | 41.8 | 49.0 | 62.0 | 27.2 | 55.4 | 61.6 | 51.8 | 38.8 |
| 4.1  clean street | 95 | 75 | 75 | 60 | 72 | 76 | 60 | 80 | 74 | 73 | 89 |
| 4.2  bldg. maint. | 84 | 75 | 83 | 45 | 78 | 63 | 30 | 63 | 56 | 57 | 56 |
| 4.4  security | 68 | 40 | 58 | 53 | 71 | 65 | 32 | 50 | 47 | 40 | 47 |
| 4.3  traf. safety | 74 | 56 | 58 | 70 | 64 | 76 | 35 | 80 | 68 | 40 | 56 |
| NONCROWDING-<br>SPECIFIC<br>SCORE | 80.3 | 61.5 | 68.5 | 57.0 | 71.4 | 70.0 | 39.3 | 68.3 | 61.3 | 52.5 | 62.0 |
| OVERALL<br>SCORE | 77.9 | 58.7 | 60.6 | 48.6 | 58.9 | 65.6 | 32.6 | 61.1 | 61.4 | 52.1 | 49.1 |

Source:  Questionnaire Survey, Q.4.
Method:  See Section 3.5.1.

## Table 3: Facilities Satisfaction (%)

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.12 conv. | 68 | 93 | 92 | 80 | 100 | 88 | 80 | 35 | 16 | 40 | 78 |
| 4.13 drug. | 72 | 100 | 92 | 100 | 100 | 100 | 100 | 59 | 100 | 92 | 94 |
| 4.16 commun. | 86 | 100 | 100 | 92 | 100 | 91 | 95 | 73 | 83 | 75 | 100 |
| 4.17 entert. | 40 | 78 | 100 | 83 | 85 | 83 | 89 | 46 | 63 | 38 | 83 |
| 4.18 shop | 53 | 100 | 75 | 72 | 88 | 82 | 70 | 39 | 40 | 50 | 82 |
| 4.15 ch. plgd. | observations too few | | | | | | | | | | |
| 4.19 transit | 100 | 81 | 70 | 76 | 86 | 75 | 76 | 100 | 88 | 82 | 92 |
| QUALITY SCORE | 69.8 | 92.0 | 88.2 | 83.8 | 92.5 | 88.2 | 85.0 | 58.7 | 65.0 | 62.8 | 89.3 |
| 5.2 conv. | 95 | 100 | 92 | 85 | 100 | 94 | 85 | 37 | 84 | 80 | 84 |
| 5.4 drug | 28 | 56 | 67 | 65 | 64 | 47 | 65 | 33 | 53 | 20 | 71 |
| 5.6 commun. | 78 | 100 | 100 | 87 | 100 | 93 | 100 | 30 | 69 | 43 | 81 |
| 5.7 transit | 100 | 100 | 92 | 95 | 100 | 100 | 100 | 78 | 100 | 100 | 100 |
| 5.3 friend | 28 | 56 | 67 | 65 | 64 | 47 | 65 | 33 | 53 | 20 | 71 |
| 5.1 work | 30 | 80 | 70 | 67 | 54 | 30 | 40 | 50 | 50 | 33 | 60 |
| ACCESSIBILITY SCORE | 56.0 | 82.0 | 81.3 | 77.3 | 80.3 | 68.5 | 75.8 | 43.5 | 68.2 | 49.3 | 77.7 |

Source: Questionnaire Survey, Q.4 and 5
Method: See Section 3.5.1.

# Table 4: Dwelling Dissatisfaction (%)

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |

**Q.3.7 PRIVACY** range too small

| | 1 LLR | 2 LXR | 3 LXX | 4 MMR | 5 MXR | 6 MMX | 7 MXX | 8 HHR | 9 HXR | 10 HHX | 11 HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 3.1 room # | 16 | 6 | 8 | 15 | 17 | 12 | 10 | 10 | 11 | 33 | 17 |
| 3.2 room size | 5 | 6 | 17 | 20 | 17 | 12 | 15 | 5 | 5 | 0 | 6 |
| 3.3 home size | range too small | | | | | | | | | | |
| 3.4 storage | 26 | 50 | 25 | 40 | 28 | 35 | 25 | 5 | 11 | 53 | 6 |
| 3.5 bath # | 11 | 6 | 17 | 30 | 22 | 35 | 30 | 5 | 11 | 13 | 0 |
| 3.6 layout | range too small | | | | | | | | | | |
| 3.9 parking | 0 | 25 | 17 | 47 | 31 | 33 | 41 | 20 | 0 | 25 | 26 |
| 3.10 appearance | 11 | 31 | 8 | 30 | 11 | 23 | 35 | 0 | 0 | 7 | 11 |
| 3.11 sun | 0 | 19 | 8 | 35 | 6 | 19 | 20 | 15 | 5 | 20 | 0 |
| 3.12 view | 5 | 38 | 0 | 30 | 22 | 37 | 20 | 30 | 16 | 13 | 0 |
| OVERALL SCORE | 9.3 | 22.6 | 12.5 | 30.9 | 19.3 | 25.8 | 24.5 | 11.3 | 7.4 | 20.5 | 9.5 |

Source: Questionnaire Survey, Q.3
Method: See Section 3.5.1.

# Table 5: Neighbourhood Dissatisfaction (%)

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.6  traf. noise | 26 | 0 | 0 | 15 | 18 | 18 | 45 | 50 | 53 | 53 | 33 |
| 4.5  neigh. noise | 0 | 6 | 0 | 40 | 18 | 24 | 25 | 15 | 21 | 7 | 11 |
| 4.8  parking | 16 | 53 | 67 | 63 | 41 | 41 | 90 | 21 | 5 | 53 | 67 |
| 4.10 air | 0 | 13 | 17 | 17 | 6 | 6 | 42 | 5 | 0 | 0 | 11 |
| 4.11 odour | 11 | 13 | 17 | 26 | 19 | 12 | 45 | 25 | 6 | 7 | 17 |
| | | | | | | | | | | | |
| 4.1  clean street | 5 | 6 | 8 | 5 | 11 | 5 | 30 | 0 | 5 | 0 | 0 |
| 4.2  bldg. maint. | 5 | 13 | 0 | 15 | 6 | 0 | 35 | 11 | 19 | 7 | 6 |
| 4.4  security | 16 | 13 | 8 | 26 | 0 | 6 | 42 | 30 | 6 | 27 | 20 |
| 4.3  traf. safety | range too small | | | | | | | | | | |
| OVERALL<br>SCORE | **9.9** | **14.6** | **14.6** | **25.9** | **14.9** | **14** | **44.3** | **19.6** | **14.4** | **25.5** | **20.6** |

Source:  Questionnaire Survey, Q.4
Method:  See Section 3.5.1.

# Table 6: Facilities Dissatisfaction (%)

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Q.4.12 conv. | 11 | 6 | 0 | 5 | 0 | 6 | 15 | 45 | 63 | 33 | 11 |
| 4.13 drug. | 6 | 0 | 0 | 0 | 0 | 0 | 0 | 29 | 0 | 8 | 0 |
| 4.16 commun. | range too small | | | | | | | | | | |
| 4.17 entert. | 40 | 11 | 0 | 8 | 8 | 8 | 0 | 46 | 38 | 13 | 0 |
| 4.18 shop | 47 | 0 | 17 | 17 | 0 | 0 | 5 | 33 | 47 | 21 | 6 |
| 4.15 ch. plgd. | observations too few | | | | | | | | | | |
| 4.19 transit | range too small | | | | | | | | | | |
| QUALITY SCORE | 26.0 | 4.3 | 4.3 | 7.5 | 2.5 | 3.5 | 5.0 | 38.3 | 37.0 | 18.8 | 4.3 |
| 5.2 conv. | 0 | 0 | 0 | 15 | 0 | 6 | 0 | 53 | 11 | 13 | 6 |
| 5.4 drug. | 67 | 19 | 17 | 30 | 35 | 41 | 20 | 61 | 41 | 60 | 29 |
| 5.6 commun. | 17 | 0 | 0 | 0 | 0 | 0 | 0 | 60 | 31 | 42 | 13 |
| 5.7 transit | range too small | | | | | | | | | | |
| 5.3 friend | 67 | 19 | 17 | 30 | 35 | 41 | 20 | 61 | 41 | 60 | 29 |
| 5.1 work | 50 | 13 | 30 | 33 | 31 | 60 | 60 | 50 | 50 | 58 | 30 |
| ACCESSIBILITY SCORE | 40.2 | 10.2 | 12.8 | 21.6 | 20.2 | 29.6 | 20.0 | 57.0 | 34.8 | 46.6 | 21.4 |

Source: Questionnaire Survey, Q.4 and 5
Method: See Section 3.5.1.

## Table 7: Dwelling Expectations (%)

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| Q.6.9 PRIVACY | 89 | 47 | 92 | 90 | 61 | 100 | 80 | 95 | 79 | 100 | 76 |
| 6.5 layout | 89 | 81 | 83 | 80 | 88 | 82 | 80 | 72 | 68 | 80 | 53 |
| 6.8 upkeep | 74 | 56 | 50 | 53 | 72 | 71 | 89 | 75 | 68 | 87 | 67 |
| 6.10 bdrm/person | 79 | 53 | 73 | 75 | 86 | 87 | 80 | 95 | 73 | 100 | 80 |
| 6.11 spare bdrm | 58 | 31 | 58 | 35 | 39 | 53 | 11 | 70 | 37 | 47 | 39 |
| INTERIOR SCORE | 75.0 | 55.3 | 66.0 | 60.8 | 71.3 | 73.3 | 65.0 | 78.0 | 61.5 | 78.5 | 59.5 |
| 6.12 sunlight | 95 | 81 | 83 | 85 | 94 | 88 | 85 | 95 | 68 | 87 | 67 |
| 6.13 fresh air | 100 | 88 | 75 | 90 | 94 | 88 | 85 | 100 | 95 | 93 | 78 |
| 6.14 ground-entry | 63 | 56 | 55 | 50 | 33 | 65 | 35 | 65 | 39 | 47 | 35 |
| 6.15 op. space | 84 | 63 | 55 | 65 | 56 | 71 | 50 | 74 | 50 | 53 | 56 |
| 6.16 appearance | 79 | 47 | 58 | 65 | 44 | 76 | 50 | 80 | 53 | 67 | 50 |
| 6.17 view | 63 | 50 | 42 | 30 | 28 | 76 | 55 | 80 | 47 | 67 | 50 |
| EXTERIOR SCORE | 80.7 | 64.2 | 61.3 | 64.2 | 58.2 | 77.3 | 60.0 | 82.3 | 58.7 | 69.0 | 56.0 |
| OVERALL SCORE | **78.4** | **60.6** | **63.2** | **62.8** | **63.4** | **75.7** | **62.0** | **80.6** | **59.8** | **72.8** | **57.0** |

Source: Questionnaire Survey, Q.6
Method: See Section 3.5.2.

## Table 8: Neighbourhood Expectations (%)

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.14 quiet neigh. | 79 | 63 | 75 | 61 | 50 | 63 | 58 | 85 | 79 | 73 | 61 |
| 7.15 quiet street | 89 | 44 | 58 | 44 | 50 | 69 | 42 | 80 | 56 | 73 | 44 |
| 7.16 greenery | 95 | 69 | 100 | 75 | 83 | 94 | 80 | 90 | 68 | 73 | 83 |
| 7.17 odour | 100 | 81 | 83 | 80 | 88 | 86 | 95 | 95 | 89 | 87 | 83 |
| CROWDING-SPECIFIC SCORE | 90.8 | 64.3 | 79.0 | 65.0 | 67.8 | 78.0 | 68.8 | 87.5 | 73.0 | 76.5 | 67.8 |
| 7.11 street maint. | 95 | 53 | 67 | 60 | 78 | 69 | 70 | 90 | 79 | 80 | 78 |
| 7.20 visual | 84 | 50 | 75 | 60 | 67 | 67 | 60 | 80 | 74 | 73 | 61 |
| 7.13 security | 100 | 75 | 92 | 95 | 89 | 94 | 100 | 100 | 100 | 100 | 94 |
| 7.12 traf. safety | 95 | 75 | 75 | 74 | 83 | 88 | 80 | 85 | 78 | 93 | 78 |
| NONCROWDING-SPECIFIC SCOPE | 93.5 | 63.3 | 77.3 | 72.3 | 79.3 | 79.5 | 77.5 | 88.8 | 82.8 | 86.5 | 77.8 |
| **OVERALL SCORE** | **92.2** | **63.8** | **78.2** | **68.7** | **73.6** | **78.8** | **73.2** | **88.2** | **77.9** | **81.5** | **72.8** |

Source:  Questionnaire Survey, Q.7
Method:  See Section 3.5.2.

# Table 9: Facilities Expectations (%)

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7.3 conv. | 68 | 53 | 58 | 70 | 65 | 47 | 65 | 63 | 58 | 60 | 53 |
| 7.2 grocery | 47 | 56 | 58 | 45 | 56 | 53 | 60 | 47 | 63 | 67 | 64 |
| 7.5 drug | 21 | 31 | 33 | 20 | 17 | 47 | 25 | 40 | 50 | 47 | 50 |
| 7.8 comm. fac. | 39 | 25 | 45 | 24 | 13 | 29 | 30 | 41 | 31 | 15 | 24 |
| 7.6 transit | 68 | 69 | 83 | 70 | 67 | 41 | 65 | 70 | 67 | 60 | 65 |
| SERVICES SCORE | 48.6 | 46.8 | 55.4 | 45.8 | 43.6 | 43.4 | 49.0 | 52.2 | 53.8 | 49.8 | 51.2 |
| 7.4 friends | 17 | 19 | 33 | 20 | 22 | 18 | 35 | 40 | 22 | 20 | 24 |
| 7.1 work | 31 | 56 | 60 | 42 | 50 | 17 | 28 | 56 | 30 | 36 | 30 |
|  | 24.0 | 37.5 | 46.5 | 31.0 | 36.0 | 17.5 | 31.5 | 48.0 | 36.0 | 28.0 | 27.0 |
| OVERALL SCORE | **41.6** | **44.1** | **52.9** | **41.6** | **41.4** | **36.0** | **44.0** | **51.0** | **45.9** | **43.6** | **44.3** |

Source: Questionnaire Survey, Q.7
Method: See Section 3.5.2.

## Table 10: Crowding Variables

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Dwelling Crowding** | | | | | | | | | | | |
| Persons/Household: A | 2.0 | 2.2 | 1.5 | 1.8 | 2.2 | 2.0 | 1.5 | 1.7 | 1.8 | 1.4 | 1.5 |
| Persons/Household: B | 2.4 | 3.7 | 3.4 | 2.6 | 2.7 | 1.9 | 2.3 | 2.3 | 2.3 | 1.6 | 1.4 |
| Persons/Bedroom: | 0.77 | 1.16 | 0.97 | 1.10 | 1.03 | 1.05 | 1.00 | 1.17 | 0.88 | 1.53 | 1.20 |
| Rooms/Dwelling: A | 5.0 | 5.6 | 3.7 | 4.5 | 5.6 | 4.9 | 3.7 | 4.3 | 4.5 | 3.6 | 3.7 |
| Rooms/Dwelling: B | 2.9 | 2.3 | 3.1 | 2.2 | 2.2 | 2.4 | 1.9 | 1.8 | 2.4 | 1.1 | 1.3 |
| **Neigh. Crowding** | | | | | | | | | | | |
| Persons/Hectare | 33.8 | 111.7 | 187.4 | 137.8 | 111.7 | 161.9 | 187.4 | 220.4 | 130.8 | 240.2 | 187.4 |
| Dwellings/Hectare: A | 16.4 | 50.0 | 121.1 | 66.4 | 50.0 | 76.9 | 121.1 | 125.5 | 50.3 | 174.5 | 121.1 |
| Dwellings/Hectare: B | 11.7 | 16.7 | 11.8 | 173.7 | 216.7 | 140.2 | 233.3 | 125.5 | 190.5 | 174.5 | 150.1 |
| Dwellings/Structure | 1 | 1 | 1 | 7.3 | 5.4 | 5.3 | 9.5 | 247 | 192 | 250 | 111.5 |
| Percept. Crowding | 0% | 37.5% | 0% | 35.0% | 27.8% | 5.9% | 15.0% | 30.0% | 21.1% | 6.7% | 16.7% |
| **Land Use** | | | | | | | | | | | |
| "Nonresidentialness" | 11.8% | 41.3% | 38.8% | 13.2% | 41.5% | 30.8% | 38.8% | 15.8% | 13.6% | 13.6% | 38.8% |

## Table 10 (continued)

### Dwelling Crowding Calculations:

| | | |
|---|---|---|
| Persons/Household: A | = | Average number of personals per household at site (Census). |
| Persons/Household: B | = | Average number of persons per household in the sample (Q.1.4). |
| Persons/Bedroom: | = | Total number of persons in the sample divided by total number of bedrooms (Q.1.4 and Q.2.3). |
| Rooms/Dwelling: A | = | Average number of rooms per dwelling at site (Census). |
| Rooms/Dwelling: B | = | Average number of bedrooms per dwelling in sample (Q.2.3). |

### Neighbourhood Crowding Calculations

| | | |
|---|---|---|
| Persons/Hectare | = | Number of residential population per hectare of residential land at site (Census and Land Use Survey). |
| Dwellings/Hectare: A | = | Number of dwellings per hectare of net residential land at site (Census and Land Use Survey). |
| Dwellings/Hectare: B | = | Number of dwellings of a specific housing type per hectare of net residential land occupied by that housing type at site (Census and Land Use Survey). |
| Dwellings/Structure | = | Number of dwelling units per multiple housing structure in the sample (low density housing type assumed to be 1 unit per structure) (Field Survey). |
| Perception of Crowding | = | Percentage in sample who thought neighbourhood was "very overcrowded" or a "little overcrowded" (Q.2.7). |

### Land Use

| | | |
|---|---|---|
| "Nonresidentialness" | = | Percentage of land for nonresidential or nonresidential-related uses in Census Tract (Census and Land Use Survey). These included "commercial", "industrial", "office", "transportation/utilities/communications", and "active recreation" uses as defined in the Land Use Survey, Ottawa-Carleton Planning Department, 1986. |

## Table 11: Housing Stock Variables

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Age:** | | | | | | | | | | | |
| Pre-1946 | 1.4% | 80.0% | 35.2% | 51.5% | 80.0% | 40.1% | 35.2% | 0% | 0% | 0% | 35.2% |
| Pre-1960 | 51.4% | 94.0% | 63.0% | 72.3% | 94.0% | 50.0% | 63.0% | 0% | 0% | 5.1% | 63.0% |
| Post-1971 | 14.3% | 5.6% | 7.8% | 6.4% | 5.6% | 43.1% | 7.8% | 100% | 100% | 65.9% | 7.8% |
| **Price:** | | | | | | | | | | | |
| Dwelling Price<br>(in $1000) | 121 | 161 | 177 | 135 | 161 | 145 | 177 | 105 | 78 | 70 | 177 |
| "Quality" Index | 24.2 | 28.8 | 47.8 | 30.0 | 28.8 | 29.6 | 47.8 | 24.4 | 17.3 | 19.4 | 47.8 |
| **Size:** | | | | | | | | | | | |
| # Rooms | 5.0 | 5.6 | 3.7 | 4.5 | 5.6 | 4.9 | 3.7 | 4.3 | 4.5 | 3.6 | 3.7 |
| # Bedrooms | 2.9 | 2.3 | 3.1 | 2.2 | 2.2 | 2.4 | 1.9 | 1.8 | 2.4 | 1.1 | 1.3 |
| **Mix:** | | | | | | | | | | | |
| **A:** | | | | | | | | | | | |
| Low Density | 54.3% | 26.2% | 3.5% | 6.9% | 26.2% | 2.6% | 3.5% | 0% | 0% | 0% | 3.5% |
| Med Density | 7.1% | 72.8% | 48.7% | 65.3% | 72.8% | 68.4% | 48.7% | 4.8% | 48.1% | 1.0% | 48.7% |
| High Density | 41.4% | 0% | 48.3% | 27.7% | 0% | 29.4% | 48.3% | 95.2% | 51.9% | 99.0% | 48.3% |
| **B:** | | | | | | | | | | | |
| S.F. | 100% | 75.0% | 91.7% | | | | | | | | |
| S.D. | | 18.8% | | | 11.2% | | | | | | |
| R.H. & T.H. | | 6.3% | 8.3% | 26.3% | 27.8% | 64.7% | 5.0% | | | | |
| L.R. | | | | 73.7% | 61.1% | 35.3% | 10.0% | 100% | 100% | 100% | 5.6% |
| H.R. | | | | | | | 85.0% | | | | 94.4% |
| **Ownership:** | | | | | | | | | | | |
| A: | 50.0% | 40.2% | 7.8% | 17.3% | 40.2% | 17.2% | 7.8% | 0% | 61.9% | 3.2% | 7.8% |
| B: | 94.7% | 50.0% | 75.0% | 10.0% | 27.8% | 29.4% | 10.0% | 5.0% | 36.0% | 0% | 0% |

Table 11 (continued)

## Housing Stock Variables

Age: Pre-1946      =   Percentage of dwelling units at site built prior to 1946 (Census).

Age: Pre-1960      =   Percentage of dwellings units at site built prior to 1960 (Census).

Age: Post-1971     =   Percentage of dwelling units at site built after 1971 (Census).


Dwelling Price     =   Average dwelling unit price at site (Census).

"Quality" Index    =   Average dwelling price divided by average number of rooms (Census).


Size: # Rooms      =   Average number of rooms per dwelling at site (Census).

Size: # Bedrooms   =   Average number of bedrooms per dwelling in sample (Q.2.3).


Mix A: Low Density =   Percentage of low density housing at site (Census).
       Med. Density =  Percentage of medium density housing at site (Census).
       High Density =  Percentage of high density housing at site (Census).


Mix B: S.F.        =   Single-family houses in the sample  (Q.15).
       S.D.        =   Semi-detached houses in the sample  (Q.15).
       R.H. & T.H. =   Rowhouses and townhouses in the sample  (Q.15).
       L.R.        =   Lowrise apartments in the sample  (Q.15).
       H.R.        =   Highrise apartments in the sample  (Q.15).


Ownership:  A  =   Percentage of dwellings owned at site (Census).

Ownership:  B  =   Percentage of dwellings owned in sample  (Q.2.1).

## Table 12: Personal/Households Variables

| Site: / Code: | 1 LLR | 2 LXR | 3 LXX | 4 MMR | 5 MXR | 6 MMX | 7 MXX | 8 HHR | 9 HXR | 10 HHX | 11 HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Income:** | | | | | | | | | | | |
| Household Median x1000 | 28 | 36 | 23 | 26 | 36 | 26 | 23 | 28 | 34 | 34 | 23 |
| Household Average A (in $1000) | 32 | 42 | 29 | 35 | 42 | 35 | 29 | 32 | 39 | 39 | 29 |
| Household Average B (in $1000) | 36 | 38 | 30 | 30 | 38 | 32 | 30 | 37 | 34 | 27 | 30 |
| Household High | 31.6% | 33.3% | 50.0% | 15.8% | 33.3% | 23.5% | 25.0% | 100% | 0% | 26.7% | 6.3% |
| Household >$50,000 | 71.4% | 63.6% | 83.3% | 17.7% | 33.3% | 33.3% | 41.2% | 26.7% | 27.3% | 7.1% | 12.5% |
| **Housing Cost** | | | | | | | | | | | |
| High Cost | 29.4% | 37.5% | 33.3% | 53.2% | 38.8% | 35.7% | 36.9% | 50% | 41.2% | 46.7% | 50% |
| No Rent/Mortgage | 41.2% | 7.1% | 33.3% | 0% | 5.6% | 6.7% | 10.0% | 15.0% | 62.1% | 0% | 7.1% |
| High Rent/Mortgage | 23.5% | 21.4% | 33.3% | 21.1% | 16.7% | 13.3% | 5.0% | 0% | 5.3% | 0% | 0% |
| **Household** | | | | | | | | | | | |
| One-Person: A | 36.6% | 34.6% | 64.2% | 50.0% | 34.6% | 47.4% | 64.2% | 45.2% | 47.6% | 63.6% | 64.2% |
| One-Person: B | 21.1% | 12.5% | 8.3% | 25.0% | 27.8% | 18.8% | 50.0% | 35.0% | 26.3% | 60.0% | 55.6% |
| Non-Family | 46.5% | 49.5% | 78.0% | 68.8% | 49.5% | 59.9% | 78.0% | 61.9% | 64.8% | 73.8% | 78.0% |
| **Ownership** | | | | | | | | | | | |
| Ownership: A | 50.0% | 40.2% | 7.8% | 17.3% | 40.2% | 17.2% | 7.8% | 0% | 61.9% | 3.2% | 7.8% |
| Ownership: B | 94.7% | 50.0% | 75.0% | 10.0% | 27.8% | 29.4% | 10.0% | 5.0% | 36.8% | 0% | 0% |
| Intention to Own | 100% | 75% | 67.7% | 66.7% | 61.5% | 50.0% | 75.5% | 41.2% | 80.0% | 53.9% | 82.4% |
| **Length of Residence** | | | | | | | | | | | |
| Dwelling > 10 years | 52.6% | 12.5% | 33.3% | 5.0% | 0% | 23.5% | 0% | 0% | 21.1% | 6.7% | 17.8% |
| Neigh. > 10 years | 52.6% | 31.1% | 33.3% | 5.0% | 16.8% | 23.5% | 15.0% | 0% | 26.3% | 20.0% | 50.0% |
| **Intention to Relocate** | | | | | | | | | | | |
| Soon: < 2 years | 11.8% | 33.3% | 41.7% | 55.6% | 50.0% | 40.0% | 36.8% | 52.6% | 47.1% | 69.2% | 46.7% |
| To Diff. Dwelling | 26.3% | 31.3% | 41.7% | 42.1% | 27.8% | 41.2% | 40.0% | 40.0% | 15.8% | 53.3% | 33.3% |
| To Diff. Neigh. | 15.8% | 6.3% | 8.3% | 5.3% | 0% | 11.8% | 10.0% | 40.0% | 5.3% | 20.0% | 5.6% |

Table 12 (continued)

| Site: Code: | 1 LLR | 2 LXR | 3 LXX | 4 MMR | 5 MXR | 6 MMX | 7 MXX | 8 HHR | 9 HXR | 10 HHX | 11 HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Education** | | | | | | | | | | | |
| University: A | 35.6% | 57.5% | 45.4% | 55.6% | 57.5% | 38.2% | 45.4% | 55.9% | 43.6% | 66.0% | 45.4% |
| University; B | 57.9% | 93.8% | 92.7% | 84.2% | 83.3% | 62.5% | 70.0% | 36.8% | 57.9% | 80.0% | 72.2% |
| **Disability** | 21.1% | 6.7% | 0% | 0% | 5.6% | 11.8% | 0% | 10% | 5.3% | 6.7% | 29.4% |

Table 12 (continued)

## Personal/Household Variables

| | |
|---|---|
| Income: Household Median | = Median household income in Census Tract. |
| Income: Household Average: A | = Average household income in Census Tract. |
| Income: Household Average: B | = Midpoint of income range at site (Census). |
| Income: Household High | = Percentage of respondents reporting "well-off" in sample (Q.13.5). |
| Income: Household > $50,000 | = Percentage of respondents with household income greater than $50,000 (Q.13.6). |

| | |
|---|---|
| Housing Cost: High Cost | = Percentage of respondents in sample paying more than one-third of income (Q.9.2). |
| Housing Cost: No Rent/Mortgage | = Percentage of respondents in sample paying no mortgage or rent (Q.9.1). |
| Housing Cost: High Rent/Mortgage | = Percentage of respondents in sample paying more than $1,000 per month for rent or mortgage (Q.9.1). |

| | |
|---|---|
| Household: One-Person A | = Percentage of one-person households at site (Census). |
| Household: One-Person B | = Percentage of one-person households in sample. |
| Household: Non-family | = Percentage of non-family households at site (Census). |

| | |
|---|---|
| Ownership: A | = Percentage of dwellings owned at site (Census). |
| Ownership: B | = Percentage of dwellings owned in sample (Q.2.1). |
| Intention to Own | = Percentage of renters intending to own (Q.11.1). |

| | |
|---|---|
| Length of Residence: Dwelling | = Percentage of respondents with more than 10 years in present dwelling (Q.1.1). |
| Length of Residence: Neighbourhood | = Percentage of respondents with more than 10 years in present neighbourhood (Q.1.3). |

| | |
|---|---|
| Intention to Relocate: Soon | = Percentage of respondents intending to move within 2 years (Q.10.3). |
| Intentions to Relocate: To Diff. Dwelling | = Percentage of respondents intending to move from present dwelling (Q.10.1). |
| Intentions to Relocate: To Diff. Neighbourhood | = Percentage of respondents intending to move from present neighbourhood (Q.10.2). |

| | |
|---|---|
| Education: University A | = Percentage of population at site with university education, with or without degree, (Census). |
| Education: University B | = Percentage of population in sample with university education (with or without degree) (Q.13.2). |

Disability = Percentage of respondents reporting physical disability in the household (Q.13.4).

**FIGURES**

# Figure 1  Dwelling Conditions: Satisfaction Levels

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| Privacy | + |  | + | - | - | - | - |  |  |  | + |
| room # |  | + |  | - |  |  |  | + | + | - |  |
| room size |  |  |  | - |  |  |  | + |  |  |  |
| home size |  |  |  | - |  |  |  | + | + | - |  |
| storage | - | - |  | - |  |  |  | + |  |  |  |
| bath # |  |  | + | - |  |  |  | + | + |  |  |
| layout |  |  |  | - |  | - |  | + | + | - |  |
| parking | + |  |  | - |  |  | - |  | + | - |  |
| appearance | + |  | + |  |  | + | - | + |  |  |  |
| sun | + | - |  |  | - |  |  |  |  |  | + |
| view | + |  | + | - | - |  |  |  |  |  | + |
| **Interior** |  |  |  | - |  |  |  | + | + | - |  |
| **Exterior** | + |  |  | - | - | - | - |  |  |  |  |
| **Overall** |  |  |  | - |  |  |  | + | + |  |  |

+ = satisfaction  
- = low satisfaction

Source:  Table 1  
Method:  Section 3.5.1(ii)

# Figure 2  Neighbourhood Quality: Satisfaction Levels

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| Neigh. type | + | | | | + | + | - | | | | |
| traffic noise | | + | | | | + | - | | | - | |
| neigh. noise | + | | | - | | | | | | - | |
| parking | + | | | - | | | - | | + | | |
| air | + | | | | | | - | + | | + | |
| odour | | + | | | | | | | | | - |
| clean street | + | | | - | | | - | | | | + |
| bldg. maint. | + | + | + | | + | | - | | | | |
| security | + | | | | + | + | - | | | | |
| traf. safety | | | | | | + | - | + | | - | |
| Crowding-specific | + | | | | | | - | | | | |
| Noncrowding-specific | + | | | | | | - | | | | |
| Overall | + | | | | | | - | | | | |

+ = satisfaction
- = low satisfaction

Source:  Table 2
Method:  See Section 3.5.1(ii)

# Figure 3  Neighbourhood Facilities: Satisfaction Levels

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| conv. |  | + | + |  | + | + |  |  | - |  |  |
| drug |  | + |  | + | + | + | + | - | + | + | + |
| comm. |  | + | + |  | + |  | + | - |  | - | + |
| entert. | - |  | + |  |  |  | + | - |  | - |  |
| shop |  | + |  |  | + |  |  | - | - | - |  |
| transit | + |  | - | - |  | - |  | + |  |  | + |
| **Quality** |  | + | + |  | + | + |  | - | - | - | + |
| conv. | + | + | + |  | + | + |  | - |  |  |  |
| drug. | - |  | + | + | + |  | + |  |  | - | + |
| comm. |  | + | + | + | + | + | + | - |  | - |  |
| transit | + | + | + |  | + | + | + | - | + |  | + |
| friends | - | + |  | + | + |  | + |  | + | - |  |
| work | - | + | + |  |  | - | - |  |  | - |  |
| **Accessibility** |  | + | + | + | + |  | + | - |  | - | + |

+  =  satisfaction
-  =  low satisfaction

Source:   Table 3
Method:  See Section 3.5.1(ii)

# Figure 4  Dwelling Conditions: Dissatisfaction Levels

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| Privacy | | | | | | | | | - | | |
| room # | | | | | | | | | | - | |
| room size | | | - | - | - | | | | | | |
| home size | - | | - | | | | - | | | | |
| storage | | - | | | | | | | | - | |
| bath # | | | | - | | - | - | | | | |
| layout | - | | - | | | - | | | | | |
| parking | | | | - | | | - | | | | |
| appearance | | - | | - | | | - | | | | |
| sun | | | | - | | | | | | | |
| view | | - | | - | - | - | | | | | |
| **Overall** | | | | - | | | | | | | |

- = high dissatisfaction

Source:  Table 4
Method:  See Section 3.5.1(ii)

# Figure 5 Neighbourhood Quality: Dissatisfaction Levels

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| Neigh. type | | range too small | | | | | | | | | |
| traffic noise | | | | | | | - | - | - | - | |
| neigh. noise | | | | - | | | | | | | |
| parking | | | | | | | - | | | | |
| air | | | | | | | - | | | | |
| odour | | | | | | | - | | | | |
| clean street | | | | | | | - | | | | |
| bldg. maint. | | | | | | | - | | | | |
| security | | | | | | | - | | | | |
| traf. safety | | | - | | | | | | | | - |
| **Overall** | | | | | | | - | | | | |

- = high dissatisfaction

Source: Table 5
Method: See Section 3.5.1(ii)

## Figure 6  Neighbourhood Facilities: Dissatisfaction Levels

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| conv. | | | | | | | | | - | | |
| drug. | | | | | | | | - | | | |
| comm. | | range too small | | | | | | | | | |
| entert. | | | | | | | | - | - | | |
| shop | | | | | | | | | - | | |
| transit | | range too small | | | | | | | | | |
| **Quality** | | | | | | | | - | - | | |
| conv. | | | | | | | | - | | | |
| drug. | - | | | | | | | - | | - | |
| comm. | | | | | | | | - | | | |
| transit | | range too small | | | | | | | | | |
| friends | - | | | | | | | - | | - | |
| work | | | | - | - | | | | | - | |
| **Accessibility** | | | | | | . | | - | | | |

- = high dissatisfaction

Source:  Table 6
Method:  See Section 3.5.1(ii)

# Figure 7  Dwelling Conditions: Expectation Levels

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| Privacy | 0 |  | 0 | 0 |  | 0 |  | 0 |  | 0 |  |
| **Interior** |  |  |  |  |  |  |  |  |  |  |  |
| layout | 0 |  | 0 |  | 0 | 0 |  |  |  |  |  |
| upkeep |  |  |  |  |  |  | 0 |  |  | 0 |  |
| bdrm/person |  |  |  |  |  |  |  | 0 |  | 0 |  |
| spare bdrm. |  |  | 0 |  |  |  | . | 0 |  |  |  |
| **Exterior** |  |  |  |  |  |  |  |  |  |  |  |
| sun | 0 |  |  |  | 0 |  |  | 0 |  |  |  |
| air | 0 |  |  |  |  |  |  | 0 |  |  |  |
| grd. ent. | 0 |  |  |  |  | 0 |  | 0 |  |  |  |
| open space | 0 |  |  |  |  |  |  |  |  |  |  |
| appearance | 0 |  |  |  |  | 0 |  | 0 |  |  |  |
| view |  |  |  |  |  | 0 |  | 0 |  |  |  |

0  =  high expectations

Source:  Table 7
Method:  See Section 3.5.2

# Figure 8  Neighbourhood Quality: Expectation Levels

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| **Crowding-specific** | | | | | | | | | | | |
| quiet neigh. | 0 | | | | | | | 0 | 0 | | |
| quiet street | 0 | | | | | | | 0 | | | |
| greenery | 0 | | 0 | | | 0 | | | | | |
| odour | 0 | | | | | | | | | | |
| **Noncrowding-specific** | | | | | | | | | | | |
| str. maint. | 0 | | | | | | | 0 | | | |
| visual | 0 | | | | | | | 0 | | | |
| security | 0 | | | 0 | | | 0 | 0 | 0 | 0 | |
| traf. safety | 0 | | | | | | | | | 0 | |

0  =  high expectations

Source:  Table 8
Method:  See Section 3.5.2

# Figure 9 Neighbourhood Facilities: Expectation Levels

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| conv. | 0 | | 0 | | | | | | | | |
| grocery | | | | | | | | | 0 | 0 | 0 |
| drug. | | | | | | 0 | | | 0 | 0 | 0 |
| comm. | 0 | | 0 | | | | | 0 | | | |
| transit | | | 0 | | | | | | | | |
| friends | | | | | | | | 0 | | | |
| work | | 0 | 0 | | | | | 0 | | | |

0 = high expectations

Source: Table 9
Method: See Section 3.5.2

# Figure 10  Neighbouring: Expectation Levels

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| **For Resid. Neigh.** | | | | | | | | | | | |
| Q. | | | | | | | | | | | |
| 7.18 resid. neigh. | 0 | | | | | | | | | | |
| 7.14 quiet neigh. | 0 | | | | | | | 0 | 0 | | |
| 7.5 quiet street | 0 | | | | | | | 0 | | | |
| 7.22 sim. lifestyle | 0 | | | | | | | 0 | 0 | | |
| 7.25 not bothered by | | | 0 | | | | | | | | |
| **For Mixed Neigh.** | | | | | | | | | | | |
| Q. | | | | | | | | | | | |
| 7.19 mixed neigh. | | | | | 0 | | | | | | |
| 7.21 str. activity | | 0 | | | | | | | | | |
| 7.25 varied lifestyle | | 0 | | | | | | | | | |
| **For All Neigh.** | | | | | | | | | | | |
| Q. | | | | | | | | | | | |
| 7.24 socializing | | | | | | | | 0 | | | |
| 7.26 helpful | | | | | | | | 0 | | | |

0  =  high expectations

Source:  Questionnaire survey, Q.7.
Method:  See Section 3.5.2

## Figure 11  Ownership: Expectation Levels

| Site:<br>Code: | 1<br>LLR | 2<br>LXR | 3<br>LXX | 4<br>MMR | 5<br>MXR | 6<br>MMX | 7<br>MXX | 8<br>HHR | 9<br>HXR | 10<br>HHX | 11<br>HXX |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Q.6.1 ownership | 0 | | | | | | | 0 | | | |
| 6.2 pride | | | | | 0 | 0 | | 0 | 0 | | |
| 6.3 asset | 0 | | | | | | | | 0 | | |
| 6.4 land | 0 | | | | | 0 | | | | | |
| 6.6 low rent/mort. | 0 | 0 | | | | 0 | 0 | 0 | | | |
| 6.7 low op. cost | 0 | | | | | 0 | 0 | 0 | | 0 | |
| 2.1 ownership % | 94.7% | 50.0% | 75.0% | 10.0% | 27.8% | 129.4% | 10.0% | 5.0% | 36.8% | 0.0% | 0.0% |

0  =  high expectation

Source:  Questionnaire survey, Q.6 and 2.
Method:  See Section 3.5.2

# Figure 12 Environmental Stress: High Expectations and Low Satisfaction

| Site: | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Code: | LLR | LXR | LXX | MMR | MXR | MMX | MXX | HHR | HXR | HHX | HXX |
| **Dwelling** | | | | | | | | | | | |
| privacy | 0+ | | 0+ | 0- | | 0- | | 0 | | 0 | |
| room # | | | | | | | | 0+ | 0+ | | |
| layout | 0- | | 0- | | 0 | 0- | | | | | |
| appearance | 0+ | | | | | 0+ | | 0+ | | | |
| sun | 0+ | | | | 0 | | | 0 | | | |
| view | | | | | | 0- | | 0 | | | |
| **Neigh.** | | | | | | | | | | | |
| clean str. | 0+ | | | | | | | 0 | | | |
| security | 0+ | | | 0 | | | 0- | 0 | 0 | 0 | |
| traf. safety | 0+ | | | | | | | | | 0- | |
| traf. noise | 0 | | | | | | | 0- | | | |
| neigh. noise | 0+ | | | | | | | 0 | 0 | | |
| odour | 0 | | | | | | | | | | |
| **Facilities** | | | | | | | | | | | |
| conv. | 0+ | | | 0 | | | | | | | |
| drug. | | | | | | 0+ | | | 0+ | 0- | 0+ |
| comm. | 0 | | 0+ | | | · | | 0- | | | |
| transit | | | 0- | | | | | | | | |
| friends | | | | | | | | 0- | | | |
| work | | 0+ | 0+ | | | | | | | | |

0 = high expections
+ = high satisfaction
- = low satisfaction or high dissatisfaction

Source: Fig. 1, 4 and 7; 2, 5 and 8; and 3, 6 and 9.
Method: See Sections 3.5.2 and 4.3.2. Only pairable housing attributes have been included.

**GRAPHS**

# Graph #1: Dwelling Satisfaction
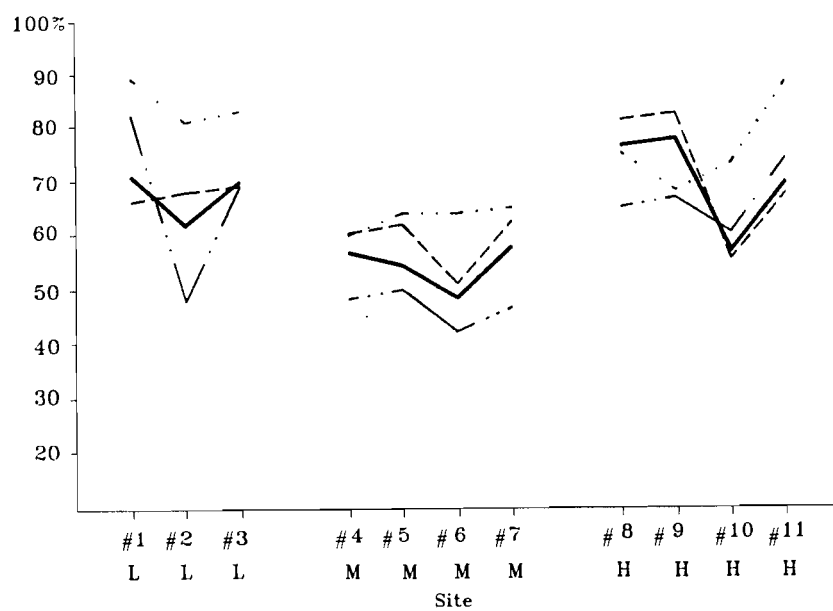


SOURCE: TABLE #1

LEGEND:

(1) ———————— OVERALL

(2) — — — — — — INTERIOR

(3) ——— · · ——— EXTERIOR

(4) - · · · · · · - PRIVACY

# Graph #2: Neighbourhood Satisfaction
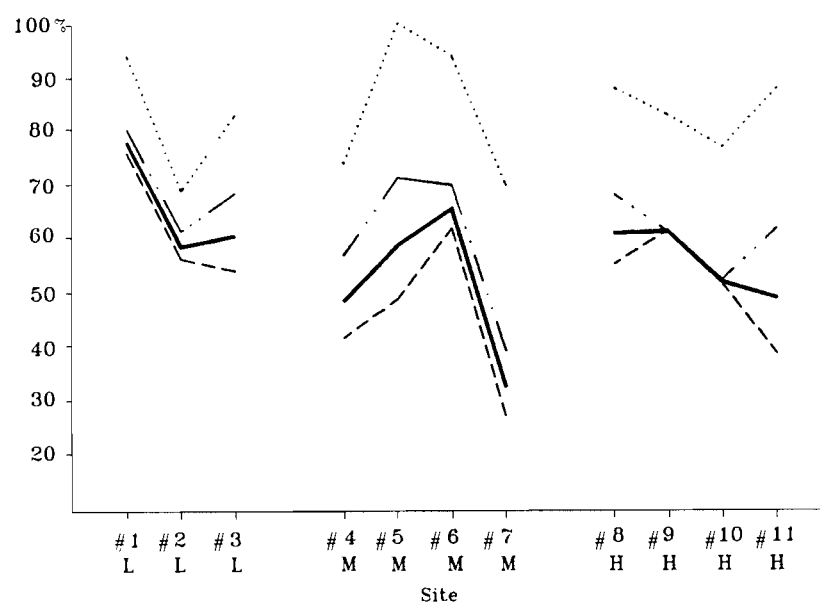


SOURCE: TABLE #2

LEGEND:

(1) ————— OVERALL
(2) — — — — CROWDING–SPECIFIC
(3) — · · — NONCROWDING–SPECIFIC
(4) ·········· NEIGHBOUR TYPE

# Graph #3: Facilities Satisfaction
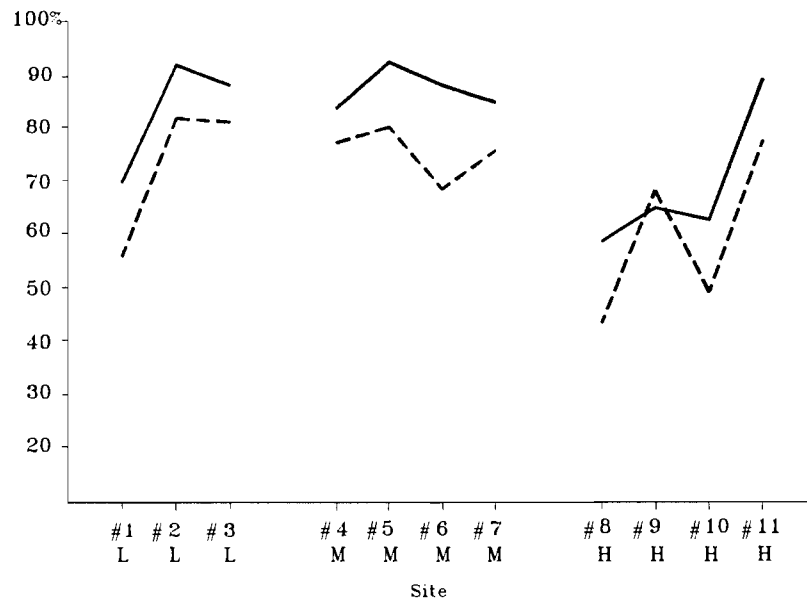


SOURCE: TABLE #3

LEGEND:

(1) ——————— QUALITY

(2) — — — — — ACCESSIBILITY

# Graph #4: Dwelling Dissatisfaction
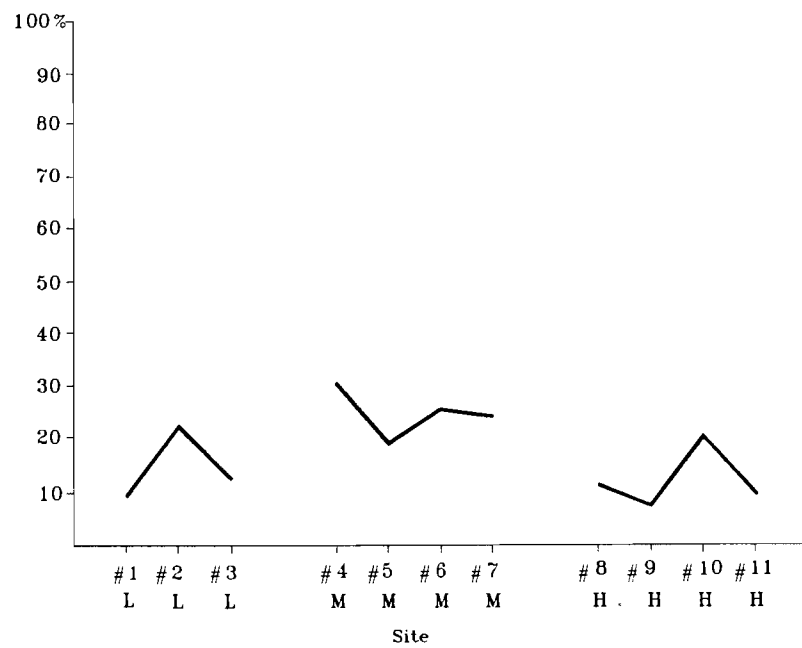


SOURCE: TABLE #4

LEGEND:

(1) ———— OVERALL

# Graph #5: Neighbourhood Dissatisfaction
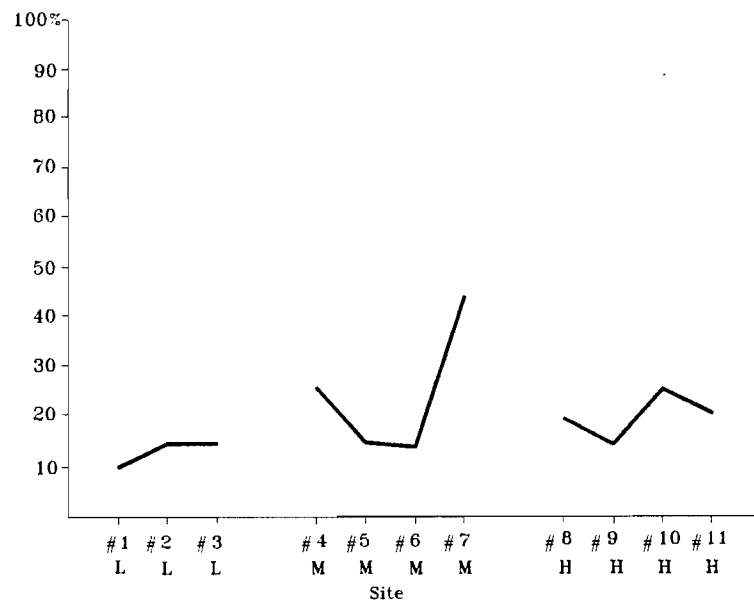


SOURCE: TABLE #5

LEGEND

(1) ———— OVERALL

# Graph #6:  Facilities  Dissatisfaction
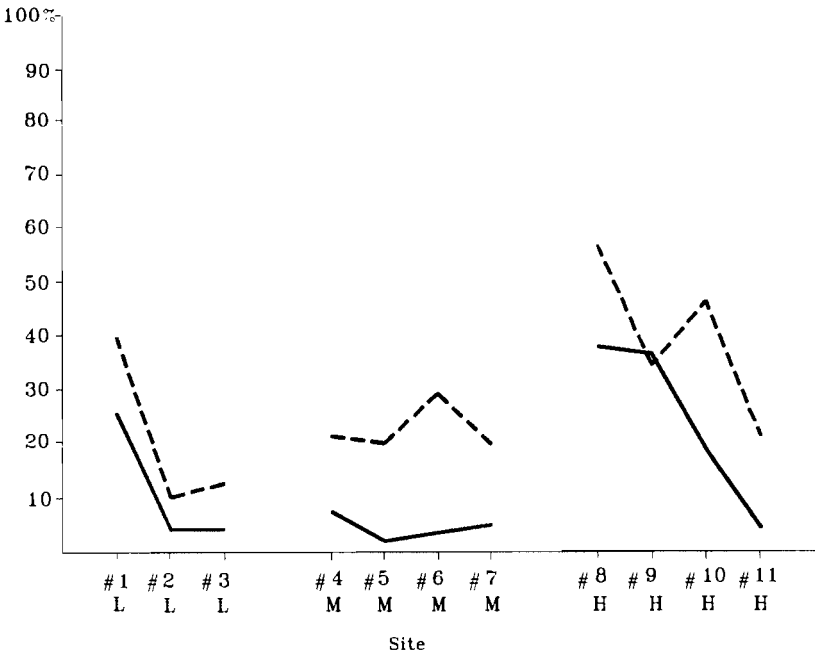


SOURCE: TABLE #6

LEGEND:
(1) ——————— QUALITY
(2) - - - - ACCESSIBILITY

# Graph #7: Dwelling Satisfaction Controlling for Neighbourhood Housing and Land Use Charactersitics
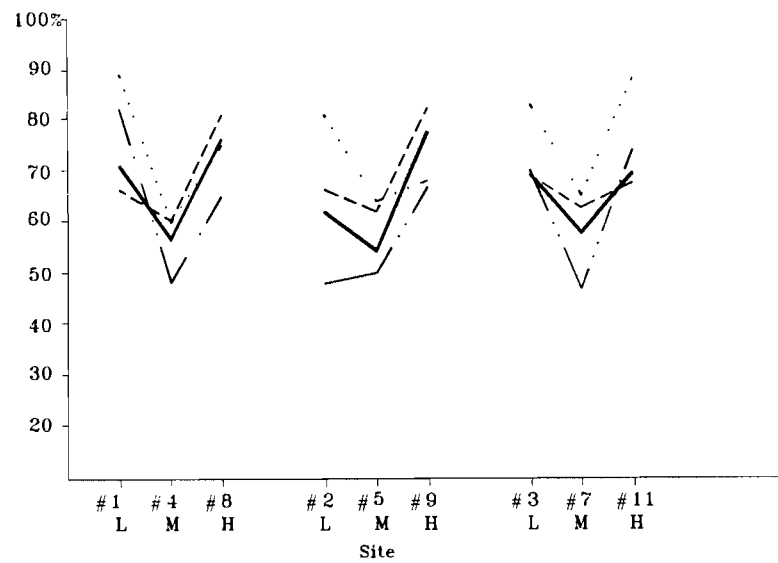


SOURCE: TABLE #1

LEGEND:
(1) ─────── OVERALL
(2) ─ ─ ─ ─ ─ INTERIOR
(3) ─── · ─── EXTERIOR
(4) ─ · · · · · · ─ PRIVACY

## Graph #8: Neighbourhood Satisfaction Controlling for Neighbourhood Housing and Land Use Characteristics
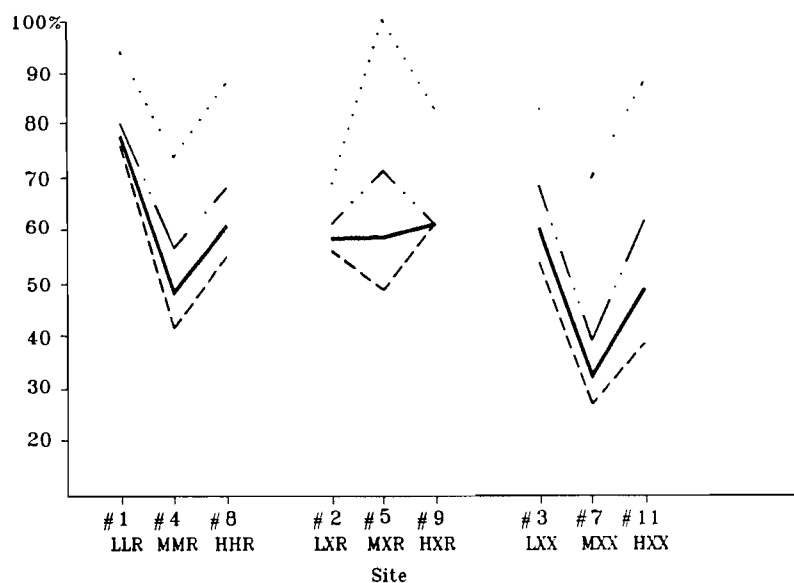


SOURCE: TABLE #2

LEGEND:

(1) ————— OVERALL
(2) — — — — CROWDING-SPECIFIC
(3) —      — NONCROWDING-SPECIFIC
(4) · · ·   · · · NEIGHBOUR TYPE

Graph #9: Facility Satisfaction Controlling for Neighbourhood Housing
and Land Use Characteristics
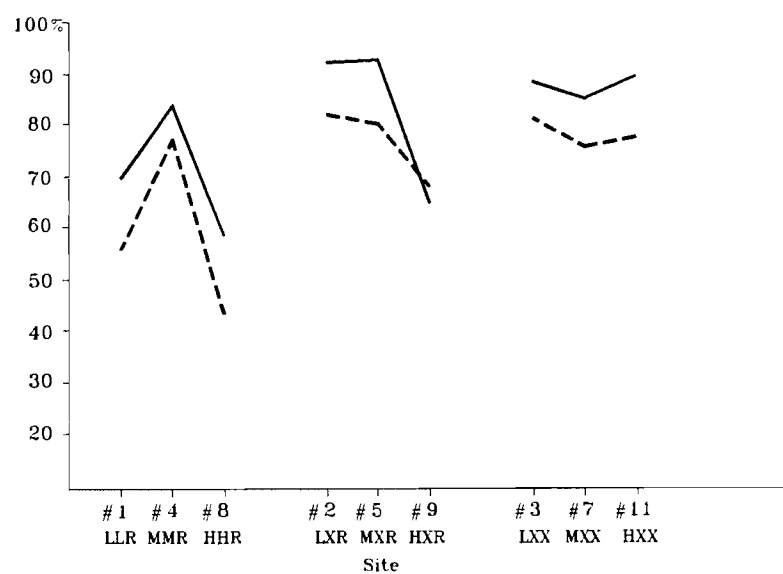


SOURCE: TABLE #3

LEGEND:

(1) ———— QUALITY

(2) — — — ACCESSIBILITY

# Graph #10: Dwelling Dissatisfaction and Dwelling Crowding

DWELLING
DISSATISFACTION

DWELLING CROWDING
(PERSONS/HOUSEHOLD)



Site
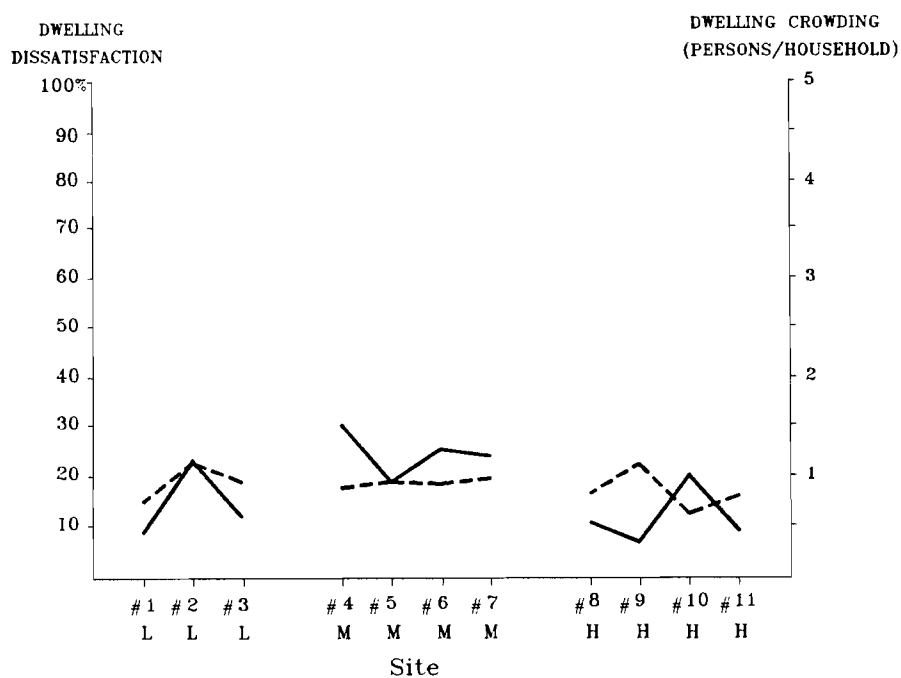
SOURCE: TABLE #4 (OVERALL SCORE) AND TABLE 10 (PERSONS/BEDROOM)

LEGEND:
(1) —————— OVERALL DWELLING DISSATISFACTION
(2) — — — PERSONS/BEDROOM

# Graph #11: Dwelling Satisfaction and Dwelling Crowding
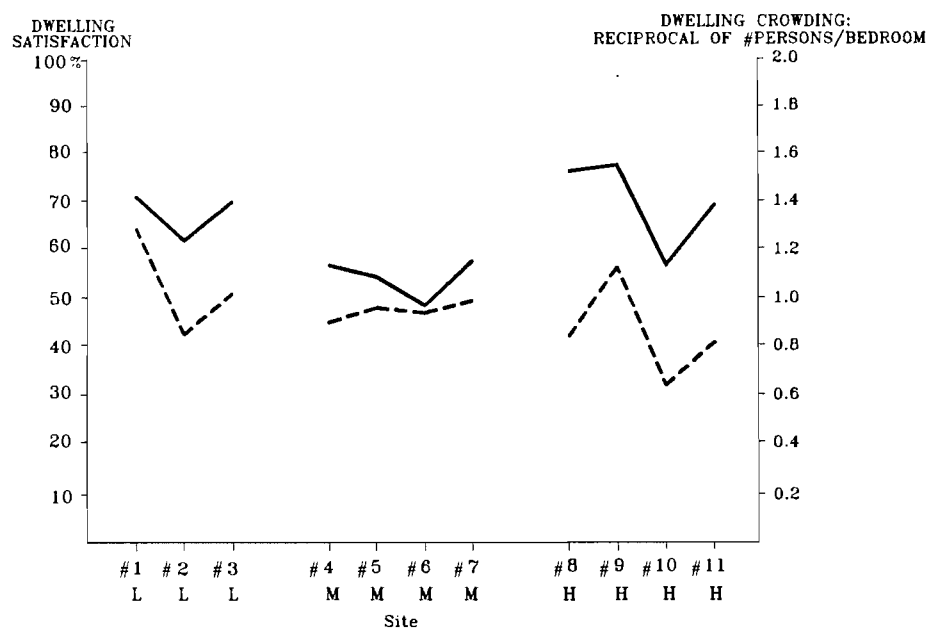


SOURCE: TABLE #1 (OVERALL CURVE) AND TABLE #10 (PERSONS/BEDROOM)

LEGEND:

(1) ———————— OVERALL DWELLING SATISFACTION

(2) — — — — — — BEDROOMS/PERSON (RECIPROCAL OF PERSONS/BEDROOM)

# Graph #12: Privacy and Dwelling Crowding
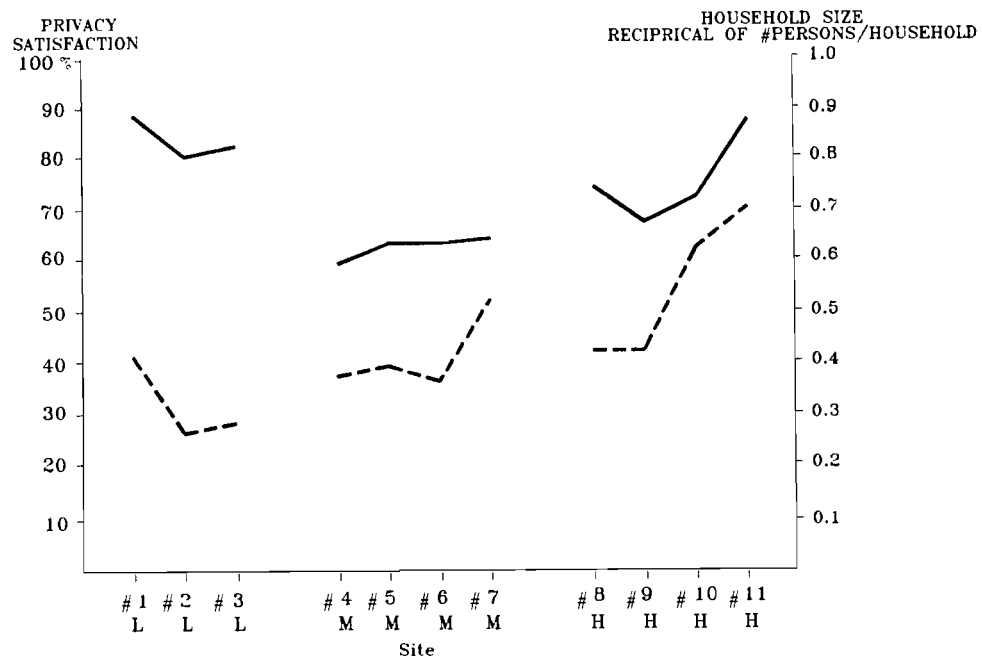


SOURCE: TABLE #1 (PRIVACY) AND TABLE 10 (PERSONS/HOUSEHOLD B)

LEGEND:

(1) ——— PRIVACY SATISFACTION

(2) — — — HOUSEHOLD/PERSON (RECIPRICAL OF PERSONS/HOUSEHOLD B)

# Graph #13: Neighbourhood Dissatisfaction and Neighbourhood Crowding

NEIGHBOURHOOD
DISSATISFACTION

NEIGHBOURHOOD CROWDING
# DWELLINGS/STRUCTURE
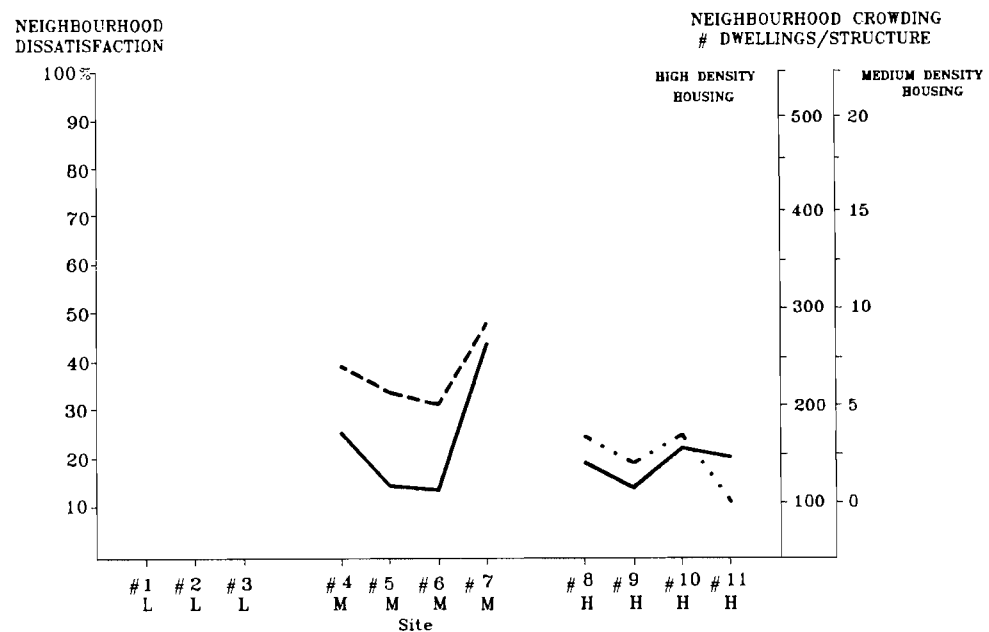


SOURCE: TABLE #5 AND TABLE #10 (DWELLINGS/ STRUCTURE)

LEGEND:

(1) ———— NEIGHBOURHOOD DISSATISFACTION

(2) ▪ ▪ ▪ ▪ # DWELLINGS/STRUCTURE (MEDIAN DENSITY)

(2) ▪ • • ▪ # DWELLINGS/STRUCTURE (HIGH DENSITY)

# Graph #14: Facilities Satisfaction and Land Use

FACILITIES
SATISFACTION

PROPORTION OF
NONRESIDENTIAL LAND USE
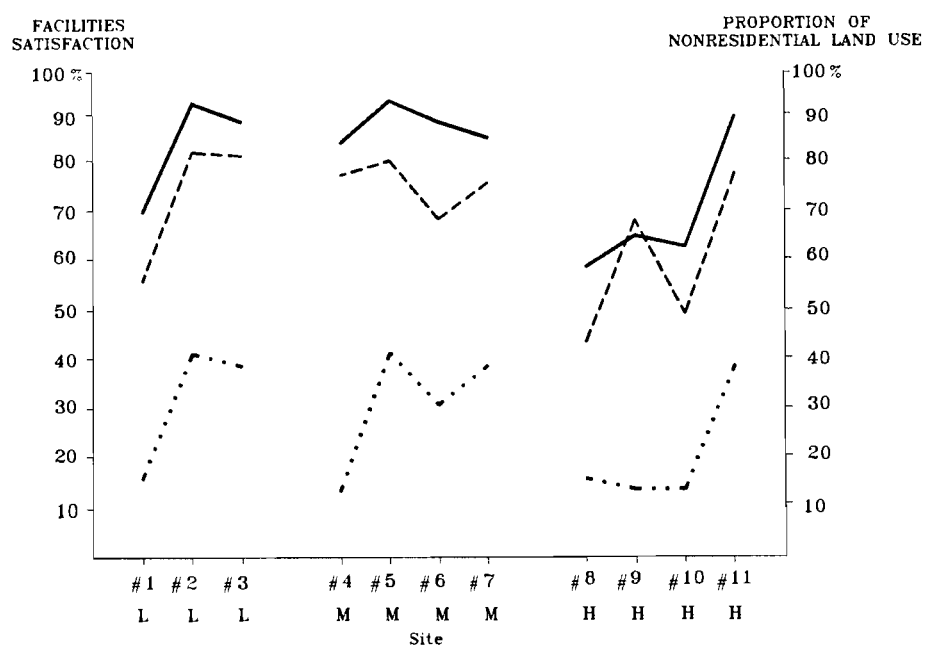


SOURCE: TABLE #3 AND TABLE #10 (NONRESIDENTIALNESS)

LEGEND:

(1) ———— QUALITY

(2) ———— ACCESSIBILITY

(3) · · · · · PROPORTION OF NONRESIDENTIAL LAND USE

Graph #15: Neighbourhood Satisfaction and Housing Mix
in Medium Density Housing Sites

NEIGHBOURHOOD
SATISFACTION

PROPORTION OF
ROWHOUSES AND TOWNHOUSES
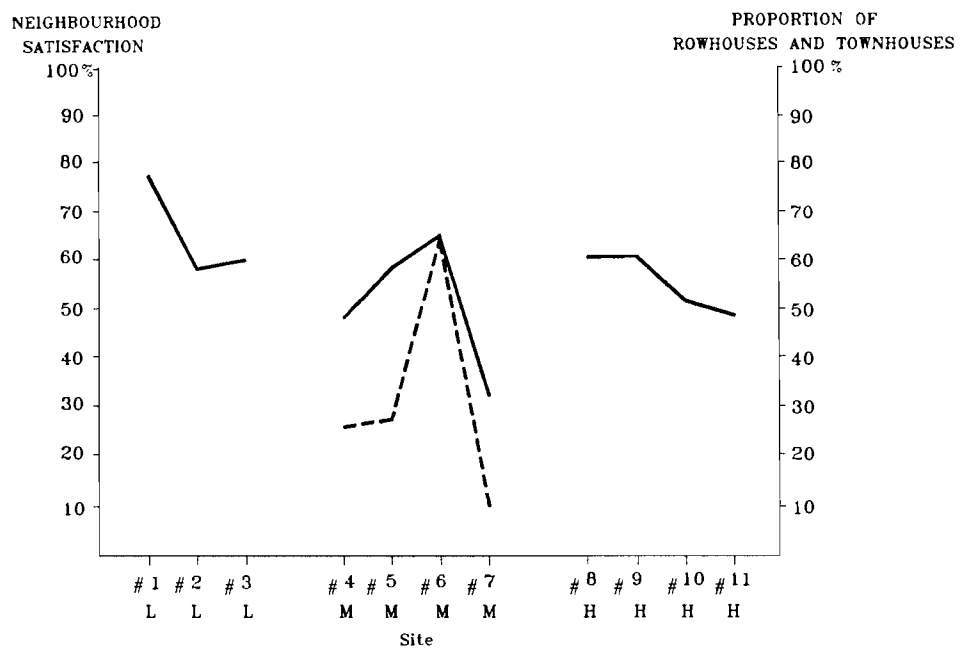


SOURCE: TABLE #2 AND TABLE #11 (MIXED B)

LEGEND:

(1) —— NEIGHBOURHOOD SATISFACTION (OVERALL)

(2) --- PROPORTION OF ROWHOUSES AND TOWNHOUSES

# Graph #16: Dwelling Satisfaction and Income

DWELLING
DISSATISFACTION

PROPORTION OF HOUSEHOLDS
WITH INCOME > $50,000
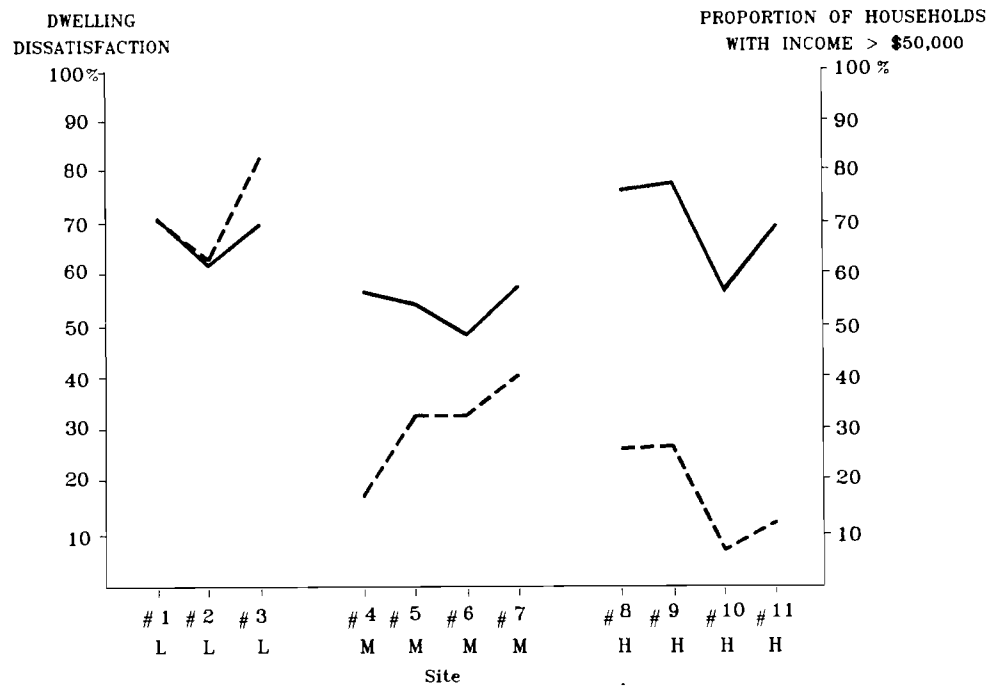


SOURCE: TABLE #1 AND TABLE #12 (INCOME: HOUSEHOLD > $50,000)

LEGEND:

(1) ———— DWELLING SATISFACTION

(2) ---- PROPORTION OF HOUSEHOLDS WITH INCOME > $50,000

Graph #17: Neighbourhood Dissatisfaction
and Length of Residence

NEIGHBOURHOOD
DISSATISFACTION

PROPORTION OF HOUSEHOLDS WITH < 10 YEARS
RESIDENCE IN THE NEIGHBOURHOOD
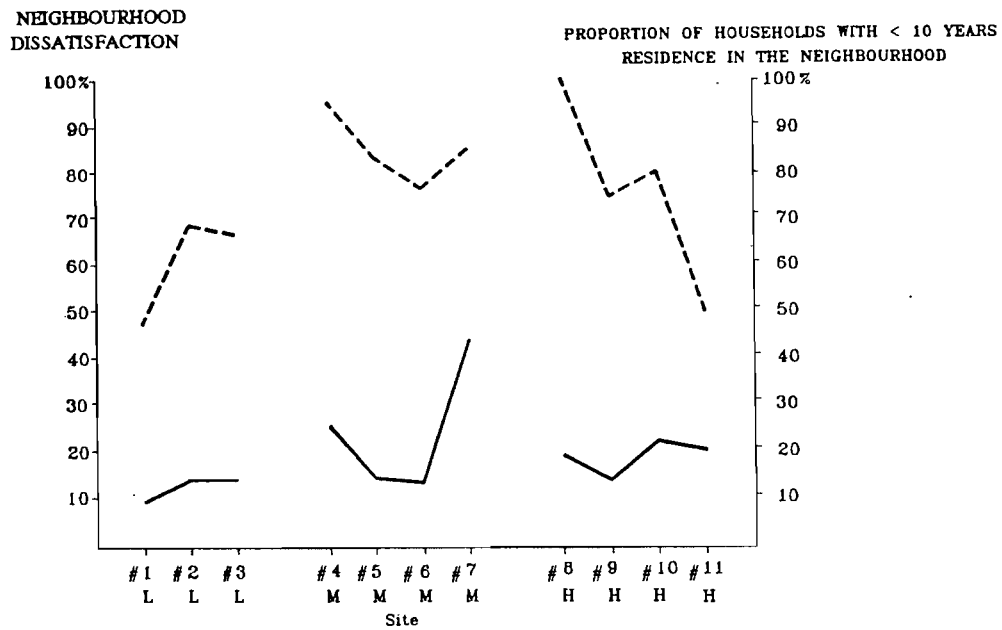


SOURCE: TABLE #5 AND TABLE #11 (RECIPRICAL OF LENGTH OF RESIDENCE,
NEIGHBOURHOOD > 10 YEARS)

LEGEND:

(1) ———— NEIGHBOURHOOD DISSATISFACTION

(2) ━ ━ ━ PROPORTION OF HOUSEHOLDS WITH < 10 YEAR RESIDENCE IN NEIGHBOURHOOD

**APPENDIX A.  Questionnaire survey instrument**

Questionnaire

**Section 1**

_____ 1.1  To begin with, when did you move to this present home?
             (years)

_____ 1.2  How long have you lived in Ottawa?
             (years)

_____ 1.3  How long have you lived in this neighbourhood?
             (years)

_____ 1.4  How many people live with you here?
             (1) alone (2) 1  (3) 2  (4) 3  (5) 4  (6) 5  (7) more

What is their relationship with you?
_____ 1.41   (1)grandparent        (2)n/a
_____ 1.42   (1)parent             (2)n/a
_____ 1.43   (1)husband/wife/partner (2)n/a
_____ 1.44   (1)children           (2)n/a
_____ 1.45   (1)grandchild         (2)n/a
_____ 1.46   (1)relative           (2)n/a
_____ 1.47   (1)boarder/tenant     (2)n/a
_____ 1.48   (1)others             (2)n/a

1

**Section 2**

I'd like to ask you a few questions about your neighbourhood.

_____2.1  Do you own or rent this place?
       (1) own   (2) rent   (3) other

_____2.2  How would you describe the type of your home? (specify)
       (1) single family
       (2) semi-detached
       (3) row/townhouses
       (4) low rise apartment/condo
       (5) high rise apartment/condo

_____2.3  How many bedrooms are there?
       (1)1 (2)2  (3)3  (4)4  (5)more

_____2.4  How many bathrooms?
       (1)1  (2)1½  (3)2   (4)2½   (5)3   (6)more

_____2.5  What type of neighbourhood do you think you live in?
       (1)residential  (2)commercial (3)mixed uses(specify_____),
       (4)others (specify_____)

_____2.6  What would you consider to be the general income of the
       neighbourhood?
       (1)  high income,
       (2)  middle to high income,
       (3)  middle income,
       (4)  middle to low income,
       (5)  low income,
       (6)  mixed income,
       (7)  don't know

_____2.7  Do you think your neighbourhood is:
       (1)  very overcrowded
       (2)  a little overcrowded
       (3)  just right
       (4)  too sparse

**Section 3**

How would you rate the following items for your home?
  (Place 6 cards in front of the interviewee and ask him/her to pick up
  the one which best describes his/her rating.)
  (5)  excellent
  (4)  good
  (3)  fair
  (2)  not-so-good
  (1)  poor/too much/too little
  (9999)  not applicable/ don't know/don't use

_____ (3.1)  number of bedrooms
_____ (3.2)  size of individual rooms
_____ (3.3)  overall size of home
_____ (3.4)  adequacy of closet and storage space
_____ (3.5)  adequacy of bathrooms or toilets
_____ (3.6)  ease of moving around in the home (e.g. layout of rooms, stairs)
_____ (3.7)  privacy in the house
_____ (3.8)  insulation
_____ (3.9)  parking
_____ (3.10) outside appearance of home
_____ (3.11) amount of sunlight
_____ (3.12) views looking out

**Section 4**

How would you rate the following items in your neighbourhood?
(Place 6 cards in front of the interviewee and ask him/her to pick up the one which best describes his/her rating.)
- (5) excellent
- (4) good
- (3) fair
- (2) not-so-good
- (1) poor/too much/too little
- (9999) not applicable/ don't know/don't use

_____ (4.1) cleanliness of streets
_____ (4.2) maintenance and repairs of buildings in neighbourhood
_____ (4.3) safety from street traffic
_____ (4.4) security from crime
_____ (4.5) noise from neighbours
_____ (4.6) free from traffic noise
_____ (4.7) other street noise (specify)
_____ (4.8) parking for you and visitors
_____ (4.9) type of neighbours
_____ (4.10) air quality
_____ (4.11) free from odour and fumes
_____ (4.12) grocery and convenience shopping in the neighbourhood
_____ (4.13) doctors/clinics/drug stores you use
_____ (4.14) schools for your children
_____ (4.15) children's playground
_____ (4.16) churches and community facilities that you use
_____ (4.17) entertainment and social clubs that you use
_____ (4.18) general shopping (e.g. clothing, bookstore)
_____ (4.19) public transit that you use
_____ (4.20) street activities
_____ (4.21) others_____

**SECTION 5**

How would you rate:
_____ (5.1) the walking distance to your work
_____ (5.2) the walking distance to convenience stores or grocery stores
_____ (5.3) the walking distance to friends
_____ (5.4) the walking distance to doctors' clinics and drug stores
_____ (5.5) the walking distance from your home to schools for your children
_____ (5.6) the walking distance to churches and community facilities
_____ (5.7) the walking distance to public transit

**SECTION 6**

How would you rate the importance of the following for your ideal home?
(Place 6 cards in front of interviewee and ask him/her to pick up the
one which best describes his/her rating.)

| extremely important (5) | very important (4) | fairly important (3) | somewhat important (2) | not important (1) | N/A 9999 |
|---|---|---|---|---|---|

Is it important:

_____(6.1) that you own your home
_____(6.2) to have a sense of pride about your home
_____(6.3) that your home is an asset for investment
_____(6.4) to own the land
_____(6.5) to have a design or layout that suits your needs
_____(6.6) to have a low mortgage or low rent
_____(6.7) to have inexpensive operating cost, for example, utilities, taxes
_____(6.8) to have a home that has easy upkeep and maintenance
_____(6.9) to have privacy in the home
_____(6.10) that each person can have a bedroom space in the house
_____(6.11) that you have a spare bedroom
_____(6.12) to have sunlight in the home
_____(6.13) to have fresh air in the home
_____(6.14) to have direct ground-level entrance to the home from outside
_____(6.15) to have open space around home
_____(6.16) to have an attractive outside appearance of the home or apartment
building
_____(6.17) to have an attractive view from the windows/balconies of the home
_____(6.18) others (specify _____)

**Section 7**

How would you rate the importance of the following for your ideal neighbourhood?
(Place 6 cards in front of interviewee and ask him/her to pick up the one which best describes his/her rating.)

| extremely important (5) | very important (4) | fairly important (3) | somewhat important (2) | not important (1) | N/A 9999 |
|---|---|---|---|---|---|

_____(7.1)   walking distance to work
_____(7.2)   walking distance to a grocery store
_____(7.3)   walking distance to a convenience store
_____(7.4)   walking distance to friends and relatives
_____(7.5)   walking distance to a doctors' office, medical clinic and drugstores
_____(7.6)   walking distance to public transportation
_____(7.7)   walking distance to neighbourhood schools for your children
_____(7.8)   walking distance to churches and community facilities
_____(7.9)   open space and parks nearby
_____(7.10)  outdoor playgrounds for children
_____(7.11)  well-maintained streets
_____(7.12)  safety from traffic
_____(7.13)  security from crime
_____(7.14)  quiet neighbours
_____(7.15)  quiet streets
_____(7.16)  greenery and trees
_____(7.17)  absence of odour and fumes
_____(7.18)  a residential-only neighbourhood
_____(7.19)  a mixed use neighbourhood that has houses, shops, offices, restaurants & other uses
_____(7.20)  visual appearance of neighbourhood
_____(7.21)  lots of activity on street
_____(7.22)  neighbours that have similar lifestyles as yours
_____(7.23)  people that have a variety of lifestyles in the neighbourhood
_____(7.24)  socializing with your neighbours
_____(7.25)  to be not bothered by your neighbours
_____(7.26)  neighbours that offer help when needed
_____(7.27)  _____others (specify _____)

**Section 8**

_____8.1  How do you do your regular grocery shopping?
(1) by car
(2) by bus
(3) by taxi
(4) walking
(5) cycling
(6) other

_____8.2  How often do you use public transit?
(1) every day
(2) a few times a week
(3) occasionally
(4) rarely
(5) never

**Section 9**

This is an optional question:

_____9.1   What is your mortgage or rent payment per month?

        (1)   no mortgage or rent
        (2)   < - 250
        (3)   250 - 500
        (4)   500 - 750
        (5)   750 - 1000
        (6)   > 1000
     (9999)   no response

_____9.2     All in all, what proportion of your total take-home income (income
             of everyone who earns in this home) goes into your housing,
             including mortgage, utilities, taxes, etc.

        (1)   < 10%
        (2)   10% - 25%
        (3)   25% - 33%
        (4)   30% - half
        (5)   more than half
     (9999)   no response

**Section 10**

_____10.1  If you had a choice, would you stay/move from your present home?

   (1)stay     (2)move     (3)no preference

_____10.2  If you had a choice, would you stay/move from your present neighbourhood?

   (1)stay     (2)move     (3)no preference

_____10.3  Do you plan to move in the near future?
   (1)   yes, within the next 2 years
   (2)   yes, within the next 5 years
   (3)   beyond 5 years
   (4)   no
   (5)   don't know

Section 11


IF A RENTER:


_____11.1  Are you thinking of becoming a homeowner?
          (1)no  (2)yes

IF YES, answer the following questions:

_____11.2  What monthly mortgage payment are you willing to pay?
          (1) < - 250
          (2) 250 - 500
          (3) 500 - 750
          (4) 750 - 1000
          (5) > 1000

**Section 12**

For homebuilders to make new housing more affordable, we are interested in what you'd be willing to accept if you paid $130,000 for a new house. These questions ask you what is the minimum standard you will accept in buying a home for $130,000.

_____12.1  What kind of housing would you accept?
       (1) single family
       (2) semi-detached
       (3) row/townhouse
       (4) low density condominiums/apt
       (5) high density condominiums/apt

_____12.2  Size of house:
       (1) 1100 sq ft.(367 m)
       (2) 1100 sq.ft.(400 m)
       (3) 1300 sq.ft.(433 m)
       (4) 1400 sq.ft.(466 m)
       (5) 1500 sq.ft.(500 m)
       (6) > 1500 sq.ft

_____12.3  # of bedrooms: (1) 1  (2) 2  (3) 3  (4) 4 (5) >4

_____12.4  size of lot:  (1) 25ft. X 75ft. (8 X 24 m)
                     (2) 25ft. X 100ft. (8 X 33 m)
                     (3) 35ft. X 75ft. (12 X 24 m)
                     (4) 35ft. X 100ft. (12 X 33m)

Minimum features of a $130,000 house that you would accept:

_____12.5  (1) driveway (2) carport  (3) 1 car garage  (4) 2 car garage

_____12.6  bathrooms: (1) 1  (2) 1½  (3) 2  (4) 2½  (5) 3 or more

_____12.7  basement: (1) none  (2) unfinished  (3) finished

_____12.8  neighbourhood type: (1) urban  (2) suburban  (3) rural

_____12.9  Do you have a neighbourhood location in mind in and around Ottawa?
       (1) no (2)yes
If yes, where and why would you consider this location?

Here are some background questions, feel free not to respond:(9999) means no response

_____ 13.1  What is your occupation?
    (1)   managerial, administrative and related occupations
    (2)   natural sciences, engineering and mathematics
    (3)   social sciences and related fields
    (4)   religion
    (5)   teaching and related occupations
    (6)   medicine and health
    (7)   artistic, literary, recreational and related occupations
    (8)   clerical and related occupations
    (9)   sales
  (10)   services occupations
  (11)   farming, horticultural and animal husbandry occupations
  (12)   fishing, trapping and related occupations
  (13)   forestry and logging occupations
  (14)   mining and quarrying including oil and gas field occupations
  (15)   processing occupations
  (16)   machining and related occupations
  (17)   product fabricating, assembling and repairing occupations
  (18)   construction trades occupations
  (19)   transport equipment operating occupations
  (20)   material handling and related occupations
  (21)   crafts and equipment operating occupations

_____ 13.2  What is your education level?  _____

_____

    (1)   less than Grade 9
    (2)   grades 9-13 - without secondary certificate
    (3)   grades 9-13 - with secondary certificate
    (4)   trades certificate or diploma
    (5)   other non-university education only - without certificate
    (6)   other non-university education only - with certificate
    (7)   university - without degree
    (8)   university - with degree

_____ 13.3  What is your ethnic background? (1) specify _____

_____ 13.4  Is there anyone in your household who is physically disabled?
(1) no  (2) yes, specify _____

_____ 13.5  How would you describe your income situation?
(1) well-off    (2) adequate    (3) insufficient

_____ 13.6  This is an optional question. Please feel free if you don't want to answer it. Taking into account all persons, what is your approximate total household income?
    (1)   < $10,000
    (2)   10,000-20,000
    (3)   20,000-30,000
    (4)   30,000-40,000
    (5)   40,000-50,000
    (6)   > 50,000
 (9999)   no answer

**Section 14**

_____14.1    I want to have a sense of the boundary of your neighbourhood. Can
you tell me what the boundaries would be?  (Can you help me to
draw it out?)

(1) no      (2) yes

Interviewer's note

Date: _____

Time: _____

Address: _____

_____15   Housing Type: (1) single family detached
                          (2) semi detached
                          (3) row/townhouse
                          (4) low rise apt/condo
                          (5) high rise apt/condo

_____16   Neighbourhood Type:   Density / Use

                          (1) low in predom low /  single
                          (2) low in a predom mix / single
                          (3) medium in a predom med / single
                          (4) medium in a predom mix / single
                          (5) high in a predom high / single
                          (6) high in a predom mix / single
                          (7) medium in a predom medium /  mixed
                          (8) medium in a predom mix / mix
                          (9) high in a predom mix / mixed
                         (10) low in a predom mixed / mixed

**APPENDIX B.  Site Profiles**

| Site#: 1 | Code: LLR | Location: Riverview Park | Census Tract: 011.02:EA 0.17 |

## General Description:

- A small secluded area of sinlge-family homes in the middle of a large number of walkup and highrise apartments.
- Separated from the rest by a major road or one side and parks on the three other sides.
- Developed in the 1950s and had mature trees lining the streets.
- Quite close to a major shopping centre and industrial park, though not by walking.

---

**Satisfaction:**
Dwelling (Table 1)
Neighbourhood (Table 2)
Facilities (Table 3)

Dwelling:
- Highest in exterior (82.3%) and privacy (89%).
- Within site, higher in exterior (82.3%) than interior (66.3%); with sunlight highest (100%) (much better than other sites) and storage pace lowest (37%).

Neighbourhood:
- Highest overall by far (77.9%).

Facilities:
- Quality tended toward lower end (69.8%), except transit (100%).
- Accessibility tended toward lower end (56.0%), except transit (100%).

---

**Dissatisfaction:**
Dwelling (Table 4)
Neighbourhood (Table 5)
Facilities (Table 6)

Facilities:
- Second poorest in accessibility (40.2%), especially the drugstore (67%) and friends (67%).

---

**Expectations:**
Dwelling (Table 7)
Neighbourhood (Table 8)
Facilities (Table 9)

Dwelling:
- Second highest in interior (75%), exterior (80.7%), and overall (78.4%), especially fresh air (100%).

Neighbourhood:
- Highest in crowding-specific (90.8%), noncrowding specific (93.5%) and overall (92.2%), by far.

---

**Parameters:**
Crowding (Table 10)
Housing Stock (Table 11)
Personal/Household (Table 12)

- Highest ownership at 94.7% (sample), although ownership at site was only 50.0%.
- Lowest home crowding in sample (0.77 person/bedroom).
- Lowest neighbourhood dwelling density (16.4 dwellings per hectare).

---

## Other Comments:

- All comparisons are across sites and based on Enumeration Area data, unless otherwise stated.
- This site was in general vicinity of Site #8, but separated by railroad track.

| Site#: 2 | Code: LXR | Location: The Glebe | Census Tract: 018:EAs 127 and 201 |
|---|---|---|---|

General Description:

- Mixed housing area along both sides of a main commercial street (Bank St.)
- Older area with housing stock being gentrified to become a very desirable neighbourhood by some and a snooty neighbourhood by others.
- Most single-family homes on the west side of the main street, and most medium density housing on east side or near the main street.
- Very varied income, age, and tenure mix.
- Large stadium nearby not welcome: noise, vandalism, traffic and parking.

**Satisfaction:**
Dwelling (Table 1)
Neighbourhood (Table 2)
Facilities (Table 3)

Dwelling:
- Medium in interior (68.0%) and low in exterior (48.0%).
- Lowest in storage space (25%), but highest in number of bedrooms (94%).

Neighbourhood:
- Lowest in parking (0%) and neighbour type (69%).

Facilities:
- Highest in quality (92.0%), especially drugstores, entertainment and general shopping (all 100%).
- Highest in accessibility (82.0%).

**Dissatisfaction:**
Dwelling (Table 4)
Neighbourhood (Table 5)
Facilities (Table 6)

Dwelling:
- Relatively poor in storage space (50%), parking (25%), appearance (31%), and view (38%).

Neighbourhood:
- Within site, poorest in parking (53%)

**Expectations:**
Dwelling (Table 7)
Neighbourhood (Table 8)
Facilities (Table 9)

Dwelling:
- Lowest in interior (55.3%) and privacy (47%); overall score also among lowest (60.6%).

Neighbourhood:
- Generally lowest all round, including overall (63.8%)

Facilities:
- Second highest about walking to work (56%)

**Parameters:**
Crowding (Table 10)
Housing Stock (Table 11)
Personal/Household (Table 12)

- Highest average persons/household (2.2 at site, and 3.7 in sample).
- Second highest in dwelling price ($161,000).
- Highest pre-1946 housing stock by far (80.0%).
- Highest household income at Census Tract and site level, but lower in sample.
- Highest dwelling density by housing type within the low density housing group (16.7 dwellings/hectare).
- Highest percentage of nonresidential-related land use (41.5%).
- Highest proportion of university educated in the sample (93.8%).

Other Comments:

- All comparisons are across sites and based on Enumeration Area dta, unless otherwise stated.
- This site was in the same general vicinity of Site #5.

| Site#: 3 | Code: LXX | Location: Centre Town | Census Tract: 037:EAs 401-405 & 407 |

## General Description:

- Busy and mixed-use centre part of city; mixed housing types with sprinkle of city parks.
- All north-south streets (short block-face) were major roads with heavy traffic, although not heavy business except restaurants and bars on Elgin Street.
- Very few single-family homes, and nearly all of which were on east-west streets with lighter traffic.
- Gradually being gentrified, though not as much as in the Glebe area (Sites #2 and 5).
- Major institutions, museum and police headquarters nearby.

---

## Satisfaction:
Dwelling (Table 1)
Neighbourhood (Table 2)
Facilities (Table 3)

Dwelling:
- Upper-middle satisfaction in all attributes.

Neighbourhood:
- Within site, lower in crowding-specific score (54.2%) and higher in noncrowding-specific scores (68.5%), with parking the lowest (25%).

Facilities:
- Quality near the top (88.2%), with entertainment (100%) highest in all sites.
- Accessibility near the top (81.3%).

## Dissatisfaction:
Dwelling (Table 4)
Neighbourhood (Table 5)
Facilities (Table 6)

## Expectations:
Dwelling (Table 7)
Neighbourhood (Table 8)
Facilities (Table 9)

Dwelling:
- Lowest in upkeep (50%).

Neighbourhood:
- Highest in greenery (100%).

Facilities:
- Highest in transit (83%), and walking distance to work (60%); and highest in overall score (52.9%).

## Parameters:
Crowding (Table 10)
Housing Stock (Table 11)
Personal/Household (Table 12)

- Low in rooms per dwelling (3.7).
- Ownership much higher in sample (75%) than for the whole site (7.8%).
- Much lower proportion of one-person household in sample (8.3%), that for the whole site (64.2%).
- Lowest average and median income at Census Tract level ($29,000 and $23,000 respectively), but respondent perception of high income was high (50.0%).
- Highest housing price ($180,000).
- Highest overall dwelling density (121.1 dwellings/hectare) in the low density housing group).
- Second highest percentage of nonresidential-related land use (38.8%).

---

## Other Comments:

- All comparisons are across sites and based on Enumeration Area data, unless otherwise stated.
- This site was in the general vicinity of Sites #7 and 11.

| Site#: 4 | Code: MMR | Location: Sandy Hill | Census Tract: 037:EAs 158-161, 209, 210 |

## General Description:

- The whole area predominantly medium-rise, medium density housing with neighbourhood commercial and parks.
- Associated with university student housing, meaning more absentee landlords, more cyclists, and more street parties.
- Some gentrification, and diversity of lifestyles.
- East-west streets (long block-face) with heavier traffic, meaning more homes affected by traffic.

**Satisfaction:**
Dwelling (Table 1)
Neighbourhood (Table 2)
Facilities (Table 3)

Dwelling:
- Lowest privacy (60%), lower-middle scores generally.

Neighbourhood:
- Toward low end in crowding-specific attributes (41.8%), especially parking (10%).

Facilities:
- Both quality and accessibility toward the high end (83.8% and 77.3% respectively).

**Dissatisfaction:**
Dwelling (Table 4)
Neighbourhood (Table 5)
Facilities (Table 6)

Dwelling:
- Poorest overall (30.9%), especially parking (47%) and sunlight (35%).

Neighbourhood:
- Poorest in noise (40%).

**Expectations:**
Dwelling (Table 7)
Neighbourhood (Table 8)
Facilities (Table 9)

Neighbourhood:
- Second lowest in crowding-specific attributes (65.0%).

**Parameters:**
Crowding (Table 10)
Housing Stock (Table 11)
Personal/Household (Table 12)

- Second largest proportion of pre-1946 housing (51.5%).
- Lowest percentage of nonresidential-related land use (13.2%).
- Lowest dwelling price within medium density housing group ($135,000).

## Other Comments:

- All comparisons are across sites and based on Enumeration Area data, unless otherwise stated.

| Site#: 5 | Code: MXR | Location: The Glebe | Census Tract: 018:EAs 127 and 201 |
|---|---|---|---|

General Description:

- Mixed housing area along both sides of a main commercial street (Bank St.)
- Older area with housing stock being gentrified to become a very desirable neighbourhood.
- Most medium density housing on east side of the main street or near the main street.
- Very varied income, age and tenure mix.
- Large stadium on west side of site affected more the single-family area and less the medium density housing area.

**Satisfaction:**
Dwelling (Table 1)
Neighbourhood (Table 2)
Facilities (Table 3)

Dwelling:
- Second lowest overall (54.4%), especially view (17%).

Neighbourhood:
- Highest in neighbour type (100%); overall satisfaction in the middle range (58.9%).

Facilities:
- Highest in quality (92.5%), especially convenience stores, drugstores and community facilities (all 100%).
- Accessibility in the top range (80.3%).

**Dissatisfaction:**
Dwelling (Table 4)
Neighbourhood (Table 5)
Facilities (Table 6)

**Expectations:**
Dwelling (Table 7)
Neighbourhood (Table 8)
Facilities (Table 9)

Dwelling:
- Exterior toward low (58.2%).

**Parameters:**
Crowding (Table 10)
Housing Stock (Table 11)
Personal/Household (Table 12)

- Highest average of persons/household (2.2 at site, and 3.7 in sample).
- Second highest in dwelling price ($161,000).
- Highest pre-1946 housing stock by far (80.0%).
- Lowest neighbourhood dwelling density in medium density housing group (50.0 dwellings per hectare).
- Highest household income at Census Tract and site level, but lower in sample.
- Highest percentage of nonresidential-related land use (41.5%).
- Highest proportion of university educated (57.8%).

Other Comments:

- All comparisons are across sites and based on Enumeration Area data, unless otherwise stated.
- This site was in the same general vicinity of Site #2.

| Site#: 6 | Code: MMX | Location: Byward Market | Census Tract: 055: EAs 314 and 316. 056: EAs 302, 304 and 305. |
|---|---|---|---|

## General Description:

- Adjacent to formerly dilapidated farmers' market area near downtown, now renovated and regenerated to become major tourist attraction, with reputation for entertainment and "red-light" district".
- Nearby major federal government institutions and regional shopping centre.
- Many social-assisted housing mixed with gentrified housing, offices and small retail (boutique-type).

---

**Satisfaction:**
Dwelling (Table 1)
Neighbourhood (Table 2)
Facilities (Table 3)

Dwelling:
- Lowest in interior (51.1%), exterior (42.3%), and overall (48.5%); and second lowest in privacy (64%).
- Within site, worst in bathroom (29%), storage space (29%), and view (19%).

Neighbourhood:
- Upper-middle satisfaction generally, with second highest overall (65.6%).

Facilities:
- Quality toward the high end (88.2%), but accessibility only about middle (68.5%).

---

**Dissatisfaction:**
Dwelling (Table 4)
Neighbourhood (Table 5)
Facilities (Table 6)

Dwelling:
- Second poorest overall (25.8%).

---

**Expectations:**
Dwelling (Table 7)
Neighbourhood (Table 8)
Facilities (Table 9)

Dwelling:
- Toward the high end for overall (75.7%), with highest privacy expectation (100%).

Facilities:
- Lowest overall (36.0%), especially in walking distance to work (18%) and friends (17%).

---

**Parameters:**
Crowding (Table 10)
Housing Stock (Table 11)
Personal/Household (Table 12)

- Lowest neighbourhood crowding according to housing density type (140.2 medium density dwellings per hectare of medium denisty residential land).
- Ownership in sample highest among medium density housing group (29.4%).
- Largest deviation between household income average and median ($35,000 to $26,000) implying large spread between high and low income groups.

---

## Other Comments:

- All comparisons are across sites and based on Enumeration Area dta, unless otherwise stated.

| Site#: 7 | Code: MXX | Location: Centre Town | Census Tract: 037: EAs 401-405, and 407 |

## General Description:

- Busy and mixed-use centre part of city; mixed housing types with sprinkle of city parks.
- Most medium density housing strung along, or very close to north-south streets (short block-face) which were major traffic routes though not heavy with business, except Elgin Street which had large number of restaurants and bars.
- Gradually being gentrified.
- Major institutions, museum and police headquarters nearby.

| Satisfaction:<br>　　Dwelling (Table 1)<br>　　Neighbourhood (Table 2)<br>　　Facilities (Table 3) | Dwelling:<br>- Medium score for interior (62.6%); and lower end for exterior (46.7%).<br><br>Neighbourhood:<br>- Lowest by far in all attributes, both crowding-specific (27.2%) and noncrowding-specific (39.3%).<br><br>Facilities:<br>- Quality generally high (85.0%); and accessibility upper-middle (75.8%). |
|---|---|
| Dissatisfaction:<br>　　Dwelling (Table 4)<br>　　Neighbourhood (Table 5)<br>　　Facilities (Table 6) | Dwelling:<br>- Appearance poorest (35%), and second poorest in parking (41%) and bathroom (30%).<br><br>Neighbourhood:<br>- Poorest by far (44.3%), especially parking (90%), air (42%), odour (45%), street cleanliness (30%), building maintenance (31%), and security (42%).<br><br>Facilities:<br>- Poorest in walking distance to work (60%). |
| Expectations:<br>　　Dwelling (Table 7)<br>　　Neighbourhood (Table 8)<br>　　Facilities (Table 9) | Neighbourhood:<br>- High on security (100%). |
| Parameters:<br>　　Crowding (Table 10)<br>　　Housing Stock (Table 11)<br>　　Personal/Household (Table 12) | - Highest proportion of one-person household in Census Tract (64.2%), although only 50% in sample (still highest in medium density housing group).<br>- Lowest average and median income at Census Tract level ($29,000 and $23,000 respectively), though not at site level.<br>- Highest housing price ($177,000).<br>- Highest density according to housing type (medium density) (233.3 dwellings per hectare).<br>- Highest dwelling units per structure in the medium density housing group in sample (9.5). |

## Other Comments:

- All comparisons are across sites and based on Enumeration Area data, unless otherwise stated.
- This site was in same general vicinity of Sites #3 and 11.

| Site#: 8 | Code: HHR | Location: Riverside/Hurdman | Census Tract: 011.02: EA 036 |

## General Description:

- A string of highrise apartments along the river, adjacent to, but physically separated by a major road from some highrise high-price condominium buildings, and by a railroad from a single-family enclave (Site #1).
- Close to, but not within easy walking, to a major shopping and industrial area.

---

**Satisfaction:**
Dwelling (Table 1)
Neighbourhood (Table 2)
Facilities (Table 3)

Dwelling:
- Second highest in interior (81.1%) and in practically all dwelling interior attributes except parking; exterior only medium (65.0%).

Neighbourhood:
- Medium scores.

Facilities:
- Lowest in both quality (58.7%) and accessibility (43.5%), especially in convenience stores, drugstores, and community facilities.

---

**Dissatisfaction:**
Dwelling (Table 4)
Neighbourhood (Table 5)
Facilities (Table 6)

Neighbourhood:
- Among the poorest in traffic noise (50%).

Facilities:
- Poorest overall (57%), especially walking distances.

---

**Expectations:**
Dwelling (Table 7)
Neighbourhood (Table 8)
Facilities (Table 9)

Dwelling:
- Highest overall (80.6%), and in both interior (78.0%) and exterior (82.3%).

Neighbourhood:
- Second highest overall (88.2%) and in crowding-specific attributes (87.5%) as well as noncrowding-specific attributes (88.8%).

Facilities:
- Second highest overall (51.0%), especially walking distance to friends (40%).

---

**Parameters:**
Crowding (Table 10)
Housing Stock (Table 11)
Personal/Household (Table 12)

- Highest post-1971 housing stock (100%).
- Lowest neighbourhood crowding in the high density housing group (125.5 high density housing dwellings per hectare of high density residential land).
- Second highest number of dwelling units per structure in sample (247).

---

## Other Comments:

- All comparisons are across sites and based on Enumeration Area data, unless otherwise stated.
- This site was in the general vicinity of Site #1, but separated by railroad tracks.

| Site#: 9 | Code: HXR | Location: Hog's Back/Dynes | Census Tract: 020.01: EA 021 |
|---|---|---|---|

## General Description:

- A pair of highrise condominium in the midst of rowhousing (social housing).
- Proximity to, but physical separation (by fence and topography) from shopping mall, although connected by noise and sight.
- Proximity to large park (Experimental Farm) and Canal.

**Satisfaction:**
Dwelling (Table 1)
Neighbourhood (Table 2)
Facilities (Table 3)

Dwelling:
- Highest by far (together with Site #8) in interior (82.3%) and all housing attributes.
- Exterior only medium (66.7%).
- Privacy toward low end (68%).

Neighbourhood:
- Medium scores; overall (61.4%).

Facilities:
- Quality toward low end (65.0%), especially problematic in convenience stores (16%).
- Accessibility medium (68.2%).

**Dissatisfaction:**
Dwelling (Table 4)
Neighbourhood (Table 5)
Facilities (Table 6)

Neighbourhood:
- Highest (with Site #10) in traffic noise (53%).
- Within site, traffic noise bipolar (53% very dissatisfied, 42% very satisfied).

Facilities:
- Poorest in convenience store (63%) and general shopping (47%).

**Expectations:**
Dwelling (Table 7)
Neighbourhood (Table 8)
Facilities (Table 9)

Dwelling:
- Generally toward the lower end in both interior (61.5%) and exterior (58.7%).

Neighbourhood:
- Medium in crowding-specific attributes (73.0%); and toward higher end in noncrowding-specific attributes (82.8%).

Facilities:
- Higher end in services (53.8%).

**Parameters:**
Crowding (Table 10)
Housing Stock (Table 11)
Personal/Household (Table 12)

- Ownership highest by far among the high density housing group (61.9% at site and 36.8% in sample).
- Second lowest in persons/bedroom in sample (0.88).
- Second lowest in dwelling price ($78,000).
- Highest percentage of post-1971 housing stock (100%).
- Lowest overall neighbourhood dwelling density within high density housing group (50.3 dwellings per hectare).
- Among the lowest percentage of nonresidential-related land use (13.6%).

## Other Comments:

- All comparisons are across sites and based on Enumeration Area data, unless otherwise stated.
- This site was in the general vicinity of Site #10.

| Site#: 10 | Code: HHX | Location: Hog's Back/Prince of Wales | Census Tract: 020.01: EAs 017 and 018 |

## General Description:

- A cluster of highrise apartments across from a large shopping mall, separated by a very busy major road.
- Close to major park and canal, and some industrial land.

---

**Satisfaction:**
Dwelling (Table 1)
Neighbourhood (Table 2)
Facilities (Table 3)

Dwelling:
- Lowest among the highrise sites (56.9%).
- Lowest in number of rooms (53%) and layout (67%).

Neighbourhood:
- Lower-middle scores generally.
- Highest in air quality (85%).

Facilities:
- Second lowest in quality (62.8%) and accessibility (49.3%).

---

**Dissatisfaction:**
Dwelling (Table 4)
Neighbourhood (Table 5)
Facilities (Table 6)

Dwelling:
- Poorest in number of rooms (33%) and storage (53%).

Neighbourhood:
- Poorest in traffic noise (53%).

Facilities:
- Second poorest in accessibility (46.6%), especially to drugstores (60%) and friends (60%).

---

**Expectations:**
Dwelling (Table 7)
Neighbourhood (Table 8)
Facilities (Table 9)

Dwelling:
- Highest in privacy (100%), and interior (78.5%) especially bedroom numbers (100%).
- Second highest in upkeep (87%).

Neighbourhood:
- Highest in security (100%), and second highest in traffic safety (93%).

Facilities:
- Highest in grocery (67%).

---

**Parameters:**
Crowding (Table 10)
Housing Stock (Table 11)
Personal/Household (Table 12)

- Highest population density (240.2/hectare).
- Highest one-person households (63.6% at site and 60.0% in sample).
- Lowest household size at Census Tract (1.4).
- Lowest number of rooms per dwelling (3.6 rooms at site, 1.1 bedrooms in sample).
- Highest average persons/bedroom (1.53), together with highest one-person households suggest very high dwelling crowding.
- Lowest in dwelling price by far ($70,000).
- Lowest household income ($27,000).
- Highest neighbourhood dwelling density (174.5 per hectare).
- Among lowest percentage of nonresidential-related land use (13.6%).

---

## Other Comments:

- All comparisons are across sites and based on Enumeration Area data, unless otherwise stated.
- Highest average persons/bedroom and highest proportion of one-person households suggest highest home crowding.
- Highest population density and dwelling density suggest neighbourhood crowding.
- Lowest dwelling price and household income suggest low dwelling quality.

| Site#: | 11 | Code: | HXX | Location: | Centre Town | Census Tract: 037: EAs 401-405 and 407 |
|--------|----|----|-----|-----------|-------------|-------|

## General Description:

- Busy and mixed use centre part of city; mixed housing types with sprinkle of city parks.
- Most high density housing strung along, or very close to north-south streets (short block-face) which were major traffic routes, though not heavy with business, except Elgin Street which had large number of restaurants and bars (no interviews on Elgin Street).
- Major institutions, museum and police headquarters nearby.

| | |
|---|---|
| **Satisfaction:**<br>Dwelling (Table 1)<br>Neighbourhood (Table 2)<br>Facilities (Table 3) | Dwelling:<br>• Medium scores generally in interior (67.5%).<br>• Second highest in exterior (74.0%).<br><br>Neighbourhood:<br>• Lower end in crowding-specific attributes (38.8%), especially odour (33%).<br><br>Facilities:<br>• Second highest in quality (89.3%).<br>• Highest in accessibility to drugstores (71%) and friend (71%). |
| **Dissatisfaction:**<br>Dwelling (Table 4)<br>Neighbourhood (Table 5)<br>Facilities (Table 6) | Dwelling:<br>• Second poorest in parking (36%).<br><br>Neighbourhood:<br>• Poor in parking (67%). |
| **Expectations:**<br>Dwelling (Table 7)<br>Neighbourhood (Table 8)<br>Facilities (Table 9) | Dwelling:<br>• Lowest overall (57%). |
| **Parameters:**<br>Crowding (Table 10)<br>Housing Stock (Table 11)<br>Personal/Household (Table 12) | • Highest proportion of one-person households (64.2%).<br>• Lowest number of persons per household in sample (1.4) by far.<br>• Low number of rooms per dwelling (3.7).<br>• Lowest number of dwelling units per structure in sample (111.5).<br>• Highest dwelling price ($177,000). |

## Other Comments:

- All comparisons are across sites and based on Enumeration Area data, unless otherwise stated.
- This site was in the same general vicinity of Sites #3 and 7.
- Lowest number of persons per household and lowest number of rooms per dwelling suggest small households in small dwellings.

**APPENDIX C.  Frequency counts**

Question 1.1
When did you move to this present home?

| ALL GROUPS | | | 194 | | GROUP 1 | | | 19 | |
|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 85 | 43.81% | | 0 to | 1 | 3 | 15.79% | |
| 2 to | 3 | 38 | 19.59% | | 2 to | 3 | 2 | 10.53% | |
| 4 to | 5 | 16 | 8.25% | | 4 to | 5 | 1 | 5.26% | |
| 6 to | 10 | 26 | 13.40% | | 6 to | 10 | 3 | 15.79% | |
| 11 to | 20 | 17 | 8.76% | | 11 to | 20 | 4 | 21.05% | |
| 21 to | 40 | 12 | 6.19% | | 21 to | 40 | 6 | 31.58% | |
| 40 + | | 0 | 0.00% | | 40 + | | 0 | 0.00% | |

| GROUP 2 | | | 16 | | GROUP 3 | | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 7 | 43.75% | | 0 to | 1 | 11 | 55.00% | |
| 2 to | 3 | 4 | 25.00% | | 2 to | 3 | 5 | 25.00% | |
| 4 to | 5 | 2 | 12.50% | | 4 to | 5 | 1 | 5.00% | |
| 6 to | 10 | 1 | 6.25% | | 6 to | 10 | 2 | 10.00% | |
| 11 to | 20 | 2 | 12.50% | | 11 to | 20 | 0 | 0.00% | |
| 21 to | 40 | 0 | 0.00% | | 21 to | 40 | 1 | 5.00% | |
| 40 + | | 0 | 0.00% | | 40 + | | 0 | 0.00% | |

| GROUP 4 | | | 18 | | GROUP 5 | | | 20 | |
|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 9 | 50.00% | | 0 to | 1 | 14 | 70.00% | |
| 2 to | 3 | 3 | 16.67% | | 2 to | 3 | 4 | 20.00% | |
| 4 to | 5 | 3 | 16.67% | | 4 to | 5 | 1 | 5.00% | |
| 6 to | 10 | 3 | 16.67% | | 6 to | 10 | 1 | 5.00% | |
| 11 to | 20 | 0 | 0.00% | | 11 to | 20 | 0 | 0.00% | |
| 21 to | 40 | 0 | 0.00% | | 21 to | 40 | 0 | 0.00% | |
| 40 + | | 0 | 0.00% | | 40 + | | 0 | 0.00% | |

| GROUP 6 | | | 19 | | GROUP 7 | | | 17 | |
|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 8 | 42.11% | | 0 to | 1 | 5 | 29.41% | |
| 2 to | 3 | 2 | 10.53% | | 2 to | 3 | 3 | 17.65% | |
| 4 to | 5 | 1 | 5.26% | | 4 to | 5 | 3 | 17.65% | |
| 6 to | 10 | 4 | 21.05% | | 6 to | 10 | 2 | 11.76% | |
| 11 to | 20 | 4 | 21.05% | | 11 to | 20 | 3 | 17.65% | |
| 21 to | 40 | 0 | 0.00% | | 21 to | 40 | 1 | 5.88% | |
| 40 + | | 0 | 0.00% | | 40 + | | 0 | 0.00% | |

Question 1.1
When did you move to this present home?

```
GROUP  8              20                    GROUP  9              18

        0 to     1    9    45.00%            0 to     1    6    33.33%
        2 to     3    4    20.00%            2 to     3    6    33.33%
        4 to     5    3    15.00%            4 to     5    0     0.00%
        6 to    10    4    20.00%            6 to    10    1     5.56%
       11 to    20    0     0.00%           11 to    20    3    16.67%
       21 to    40    0     0.00%           21 to    40    2    11.11%
       40 +          0     0.00%           40 +          0     0.00%


GROUP 10              12                    GROUP 11              15

        0 to     1    2    16.67%            0 to     1   10    66.67%
        2 to     3    2    16.67%            2 to     3    4    26.67%
        4 to     5    1     8.33%            4 to     5    0     0.00%
        6 to    10    3    25.00%            6 to    10    0     0.00%
       11 to    20    2    16.67%           11 to    20    1     6.67%
       21 to    40    2    16.67%           21 to    40    0     0.00%
       40 +          0     0.00%           40 +          0     0.00%
```

```
Question 1.2
How long have you lived in Ottawa?


ALL GROUPS        194              GROUP 1           19

    0 to    1    21   10.82%          0 to    1    0    0.00%
    2 to    3    30   15.46%          2 to    3    0    0.00%
    4 to    5    25   12.89%          4 to    5    3   15.79%
    6 to   10    27   13.92%          6 to   10    2   10.53%
   11 to   20    28   14.43%         11 to   20    3   15.79%
   21 to   40    42   21.65%         21 to   40    6   31.58%
   40 +          20   10.31%         40 +          5   26.32%


GROUP 2           16              GROUP 3           20

    0 to    1    3   18.75%           0 to    1    2   10.00%
    2 to    3    2   12.50%           2 to    3    5   25.00%
    4 to    5    2   12.50%           4 to    5    5   25.00%
    6 to   10    3   18.75%           6 to   10    3   15.00%
   11 to   20    3   18.75%          11 to   20    1    5.00%
   21 to   40    3   18.75%          21 to   40    3   15.00%
   40 +          0    0.00%          40 +          1    5.00%


GROUP 4           18              GROUP 5           20

    0 to    1    0    0.00%           0 to    1    7   35.00%
    2 to    3    6   33.33%           2 to    3    4   20.00%
    4 to    5    2   11.11%           4 to    5    2   10.00%
    6 to   10    3   16.67%           6 to   10    1    5.00%
   11 to   20    4   22.22%          11 to   20    0    0.00%
   21 to   40    3   16.67%          21 to   40    4   20.00%
   40 +          0    0.00%          40 +          2   10.00%


GROUP 6           19              GROUP 7           17

    0 to    1    2   10.53%           0 to    1    2   11.76%
    2 to    3    2   10.53%           2 to    3    1    5.88%
    4 to    5    4   21.05%           4 to    5    2   11.76%
    6 to   10    2   10.53%           6 to   10    4   23.53%
   11 to   20    1    5.26%          11 to   20    0    0.00%
   21 to   40    5   26.32%          21 to   40    5   29.41%
   40 +          3   15.79%          40 +          3   17.65%
```

Question 1.2
How long have you lived in Ottawa?

| GROUP 8 | | 20 | | | GROUP 9 | | 11 | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 0 | 0.00% | | 0 to | 1 | 2 | 11.11% |
| 2 to | 3 | 0 | 0.00% | | 2 to | 3 | 2 | 11.11% |
| 4 to | 5 | 4 | 20.00% | | 4 to | 5 | 0 | 0.00% |
| 6 to | 10 | 4 | 20.00% | | 6 to | 10 | 2 | 11.11% |
| 11 to | 20 | 8 | 40.00% | | 11 to | 20 | 4 | 22.22% |
| 21 to | 40 | 4 | 20.00% | | 21 to | 40 | 3 | 16.67% |
| 40 + | | 0 | 0.00% | | 40 + | | 5 | 27.78% |

| GROUP 10 | | 12 | | | GROUP 11 | | 15 | | |
|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 0 | 0.00% | | 0 to | 1 | 3 | 20.00% |
| 2 to | 3 | 2 | 16.67% | | 2 to | 3 | 6 | 40.00% |
| 4 to | 5 | 1 | 8.33% | | 4 to | 5 | 0 | 0.00% |
| 6 to | 10 | 2 | 16.67% | | 6 to | 10 | 1 | 6.67% |
| 11 to | 20 | 2 | 16.67% | | 11 to | 20 | 3 | 20.00% |
| 21 to | 40 | 4 | 33.33% | | 21 to | 40 | 2 | 13.33% |
| 40 + | | 1 | 8.33% | | 40 + | | 0 | 0.00% |

Question 1.3
How long have you lived in this neighbourhood?

| ALL GROUPS | | | 194 | | | GROUP 1 | | | 19 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 58 | 29.90% | | | 0 to | 1 | 3 | 15.79% |
| 2 to | 3 | 40 | 20.62% | | | 2 to | 3 | 2 | 10.53% |
| 4 to | 5 | 24 | 12.37% | | | 4 to | 5 | 2 | 10.53% |
| 6 to | 10 | 25 | 12.89% | | | 6 to | 10 | 2 | 10.53% |
| 11 to | 20 | 24 | 12.37% | | | 11 to | 20 | 3 | 15.79% |
| 21 to | 40 | 19 | 9.79% | | | 21 to | 40 | 7 | 36.84% |
| 40 + | | 4 | 2.06% | | | 40 + | | 0 | 0.00% |

| GROUP 2 | | | 16 | | | GROUP 3 | | | 20 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 4 | 25.00% | | | 0 to | 1 | 7 | 35.00% |
| 2 to | 3 | 4 | 25.00% | | | 2 to | 3 | 4 | 20.00% |
| 4 to | 5 | 2 | 12.50% | | | 4 to | 5 | 4 | 20.00% |
| 6 to | 10 | 1 | 6.25% | | | 6 to | 10 | 4 | 20.00% |
| 11 to | 20 | 4 | 25.00% | | | 11 to | 20 | 0 | 0.00% |
| 21 to | 40 | 1 | 6.25% | | | 21 to | 40 | 1 | 5.00% |
| 40 + | | 0 | 0.00% | | | 40 + | | 0 | 0.00% |

| GROUP 4 | | | 18 | | | GROUP 5 | | | 20 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 6 | 33.33% | | | 0 to | 1 | 14 | 70.00% |
| 2 to | 3 | 4 | 22.22% | | | 2 to | 3 | 4 | 20.00% |
| 4 to | 5 | 3 | 16.67% | | | 4 to | 5 | 1 | 5.00% |
| 6 to | 10 | 2 | 11.11% | | | 6 to | 10 | 1 | 5.00% |
| 11 to | 20 | 2 | 11.11% | | | 11 to | 20 | 0 | 0.00% |
| 21 to | 40 | 1 | 5.56% | | | 21 to | 40 | 0 | 0.00% |
| 40 + | | 0 | 0.00% | | | 40 + | | 0 | 0.00% |

| GROUP 6 | | | 19 | | | GROUP 7 | | | 17 | |
|---|---|---|---|---|---|---|---|---|---|---|
| 0 to | 1 | 8 | 42.11% | | | 0 to | 1 | 4 | 23.53% |
| 2 to | 3 | 2 | 10.53% | | | 2 to | 3 | 4 | 23.53% |
| 4 to | 5 | 2 | 10.53% | | | 4 to | 5 | 2 | 11.76% |
| 6 to | 10 | 3 | 15.79% | | | 6 to | 10 | 3 | 17.65% |
| 11 to | 20 | 3 | 15.79% | | | 11 to | 20 | 1 | 5.88% |
| 21 to | 40 | 1 | 5.26% | | | 21 to | 40 | 2 | 11.76% |
| 40 + | | 1 | 5.26% | | | 40 + | | 1 | 5.88% |

Question 1.3
How long have you lived in this neighbourhood?

GROUP 8                20              GROUP 9                18

        0 to   1      2   10.00%              0 to   1      2   11.11%
        2 to   3      6   30.00%              2 to   3      2   11.11%
        4 to   5      5   25.00%              4 to   5      2   11.11%
        6 to  10      4   20.00%              6 to  10      3   16.67%
       11 to  20      3   15.00%             11 to  20      4   22.22%
       21 to  40      0    0.00%             21 to  40      4   22.22%
       40 +           0    0.00%             40 +           1    5.56%

GROUP 10               12              GROUP 11               15

        0 to   1      1    8.33%              0 to   1      7   46.67%
        2 to   3      3   25.00%              2 to   3      5   33.33%
        4 to   5      2   16.67%              4 to   5      0    0.00%
        6 to  10      2   16.67%              6 to  10      0    0.00%
       11 to  20      1    8.33%             11 to  20      3   20.00%
       21 to  40      2   16.67%             21 to  40      0    0.00%
       40 +           1    8.33%             40 +           0    0.00%

Question 1.4
How many people live with you here?
(household size)


| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| none | 61 | 31.61% | none | 4 | 21.05% |
| one | 61 | 31.61% | one | 9 | 47.37% |
| two to three | 57 | 29.53% | two to three | 5 | 26.32% |
| four or more | 14 | 7.25% | four or more | 1 | 5.26% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| none | 2 | 12.50% | none | 5 | 25.00% |
| one | 3 | 18.75% | one | 7 | 35.00% |
| two to three | 5 | 31.25% | two to three | 6 | 30.00% |
| four or more | 6 | 37.50% | four or more | 2 | 10.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| none | 5 | 27.78% | none | 7 | 35.00% |
| one | 4 | 22.22% | one | 5 | 25.00% |
| two to three | 9 | 50.00% | two to three | 8 | 40.00% |
| four or more | 0 | 0.00% | four or more | 0 | 0.00% |


| GROUP 6 | 19 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| none | 5 | 26.32% | none | 3 | 18.75% |
| one | 8 | 42.11% | one | 5 | 31.25% |
| two to three | 5 | 26.32% | two to three | 7 | 43.75% |
| four or more | 1 | 5.26% | four or more | 1 | 6.25% |


| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| none | 10 | 50.00% | none | 10 | 55.56% |
| one | 5 | 25.00% | one | 8 | 44.44% |
| two to three | 5 | 25.00% | two to three | 0 | 0.00% |
| four or more | 0 | 0.00% | four or more | 0 | 0.00% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| none | 1 | 8.33% | none | 9 | 60.00% |
| one | 3 | 25.00% | one | 4 | 26.67% |
| two to three | 5 | 41.67% | two to three | 2 | 13.33% |
| four or more | 3 | 25.00% | four or more | 0 | 0.00% |

Question 2.1
Do you own or rent this place?

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| own | 57 | 29.38% | own | 18 | 94.74% |
| rent | 132 | 68.04% | rent | 1 | 5.26% |
| other | 5 | 2.58% | other | 0 | 0.00% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| own | 8 | 50.00% | own | 2 | 10.00% |
| rent | 8 | 50.00% | rent | 18 | 90.00% |
| other | 0 | 0.00% | other | 0 | 0.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| own | 5 | 27.78% | own | 1 | 5.00% |
| rent | 13 | 72.22% | rent | 17 | 85.00% |
| other | 0 | 0.00% | other | 2 | 10.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| own | 7 | 36.84% | own | 5 | 29.41% |
| rent | 11 | 57.89% | rent | 12 | 70.59% |
| other | 1 | 5.26% | other | 0 | 0.00% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| own | 2 | 10.00% | own | 0 | 0.00% |
| rent | 17 | 85.00% | rent | 17 | 94.44% |
| other | 1 | 5.00% | other | 1 | 5.56% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| own | 9 | 75.00% | own | 0 | 0.00% |
| rent | 3 | 25.00% | rent | 15 | 100.00% |
| other | 0 | 0.00% | other | 0 | 0.00% |

Question 2.2
How would you describe the type of your home?

| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| single family | 44 | 22.80% | single family | 19 | 100.00% |
| semi-detached | 9 | 4.66% | semi-detached | 0 | 0.00% |
| row/townhouse | 20 | 10.36% | row/townhouse | 0 | 0.00% |
| low rise/apt. cond | 53 | 27.46% | low rise/apt. cond | 0 | 0.00% |
| high rise/apt cond | 67 | 34.72% | high rise/apt cond | 0 | 0.00% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| single family | 12 | 75.00% | single family | 0 | 0.00% |
| semi-detached | 3 | 18.75% | semi-detached | 1 | 5.00% |
| row/townhouse | 0 | 0.00% | row/townhouse | 6 | 30.00% |
| low rise/apt. cond | 1 | 6.25% | low rise/apt. cond | 13 | 65.00% |
| high rise/apt cond | 0 | 0.00% | high rise/apt cond | 0 | 0.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| single family | 1 | 5.56% | single family | 0 | 0.00% |
| semi-detached | 2 | 11.11% | semi-detached | 0 | 0.00% |
| row/townhouse | 4 | 22.22% | row/townhouse | 0 | 0.00% |
| low rise/apt. cond | 11 | 61.11% | low rise/apt. cond | 1 | 5.00% |
| high rise/apt cond | 0 | 0.00% | high rise/apt cond | 19 | 95.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| single family | 0 | 0.00% | single family | 2 | 11.76% |
| semi-detached | 0 | 0.00% | semi-detached | 2 | 11.76% |
| row/townhouse | 0 | 0.00% | row/townhouse | 7 | 41.18% |
| low rise/apt. cond | 0 | 0.00% | low rise/apt. cond | 6 | 35.29% |
| high rise/apt cond | 19 | 100.00% | high rise/apt cond | 0 | 0.00% |

| GROUP 8 | 20 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| single family | 0 | 0.00% | single family | 0 | 0.00% |
| semi-detached | 0 | 0.00% | semi-detached | 0 | 0.00% |
| row/townhouse | 2 | 10.00% | row/townhouse | 0 | 0.00% |
| low rise/apt. cond | 18 | 90.00% | low rise/apt. cond | 3 | 18.75% |
| high rise/apt cond | 0 | 0.00% | high rise/apt cond | 14 | 87.50% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| single family | 10 | 83.33% | single family | 0 | 0.00% |
| semi-detached | 1 | 8.33% | semi-detached | 0 | 0.00% |
| row/townhouse | 1 | 8.33% | row/townhouse | 0 | 0.00% |
| low rise/apt. cond | 0 | 0.00% | low rise/apt. cond | 0 | 0.00% |
| high rise/apt cond | 0 | 0.00% | high rise/apt cond | 15 | 100.00% |

Question 2.3
How many bedrooms are there?

| ALL GROUPS | 191 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| one | 51 | 26.70% | one | 0 | 0.00% |
| two | 74 | 38.74% | two | 5 | 26.32% |
| three | 44 | 23.04% | three | 10 | 52.63% |
| four or more | 21 | 10.99% | four or more | 4 | 21.05% |
| bachelor | 1 | 0.52% | bachelor | 0 | 0.00% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| one | 2 | 12.50% | one | 4 | 20.00% |
| two | 5 | 31.25% | two | 10 | 50.00% |
| three | 3 | 18.75% | three | 3 | 15.00% |
| four or more | 5 | 31.25% | four or more | 3 | 15.00% |
| bachelor | 1 | 6.25% | bachelor | 0 | 0.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| one | 5 | 27.78% | one | 4 | 20.00% |
| two | 5 | 27.78% | two | 16 | 80.00% |
| three | 7 | 38.89% | three | 0 | 0.00% |
| four or more | 1 | 5.56% | four or more | 0 | 0.00% |
| bachelor | 0 | 0.00% | bachelor | 0 | 0.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 2 | 11.76% |
| two | 12 | 63.16% | two | 9 | 52.94% |
| three | 7 | 36.84% | three | 4 | 23.53% |
| four or more | 0 | 0.00% | four or more | 2 | 11.76% |
| bachelor | 0 | 0.00% | bachelor | 0 | 0.00% |

| GROUP 8 | 20 | | GROUP 9 | 16 | |
|---|---|---|---|---|---|
| one | 9 | 45.00% | one | 12 | 85.71% |
| two | 4 | 20.00% | two | 4 | 28.57% |
| three | 7 | 35.00% | three | 0 | 0.00% |
| four or more | 0 | 0.00% | four or more | 0 | 0.00% |
| bachelor | 0 | 0.00% | bachelor | 0 | 0.00% |

| GROUP 10 | 12 | | GROUP 11 | 14 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 13 | 100.00% |
| two | 3 | 25.00% | two | 1 | 7.69% |
| three | 3 | 25.00% | three | 0 | 0.00% |
| four or more | 6 | 50.00% | four or more | 0 | 0.00% |
| bachelor | 0 | 0.00% | bachelor | 0 | 0.00% |

Question 2.4
How many bathrooms?

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| one | 140 | 72.16% | one | 6 | 31.58% |
| one 1/2 | 9 | 4.64% | one 1/2 | 4 | 21.05% |
| two | 33 | 17.01% | two | 8 | 42.11% |
| two 1/2 | 2 | 1.03% | two 1/2 | 0 | 0.00% |
| three or more | 10 | 5.15% | three or more | 1 | 5.26% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| one | 7 | 43.75% | one | 17 | 85.00% |
| one 1/2 | 0 | 0.00% | one 1/2 | 0 | 0.00% |
| two | 6 | 37.50% | two | 2 | 10.00% |
| two 1/2 | 1 | 6.25% | two 1/2 | 0 | 0.00% |
| three or more | 2 | 12.50% | three or more | 1 | 5.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| one | 16 | 88.89% | one | 20 | 100.00% |
| one 1/2 | 1 | 5.56% | one 1/2 | 0 | 0.00% |
| two | 0 | 0.00% | two | 0 | 0.00% |
| two 1/2 | 0 | 0.00% | two 1/2 | 0 | 0.00% |
| three or more | 1 | 5.56% | three or more | 0 | 0.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| one | 12 | 63.16% | one | 12 | 70.59% |
| one 1/2 | 0 | 0.00% | one 1/2 | 1 | 5.88% |
| two | 7 | 36.84% | two | 4 | 23.53% |
| two 1/2 | 0 | 0.00% | two 1/2 | 0 | 0.00% |
| three or more | 0 | 0.00% | three or more | 0 | 0.00% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| one | 17 | 85.00% | one | 16 | 88.89% |
| one 1/2 | 0 | 0.00% | one 1/2 | 0 | 0.00% |
| two | 1 | 5.00% | two | 2 | 11.11% |
| two 1/2 | 1 | 5.00% | two 1/2 | 0 | 0.00% |
| three or more | 1 | 5.00% | three or more | 0 | 0.00% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| one | 3 | 25.00% | one | 14 | 93.33% |
| one 1/2 | 2 | 16.67% | one 1/2 | 1 | 6.67% |
| two | 3 | 25.00% | two | 0 | 0.00% |
| two 1/2 | 0 | 0.00% | two 1/2 | 0 | 0.00% |
| three or more | 4 | 33.33% | three or more | 0 | 0.00% |

Question 2.5
What type of neighbourhood do you think you live in?

| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| residential | 94 | 48.70% | residential | 18 | 94.74% |
| commercial | 0 | 0.00% | commercial | 0 | 0.00% |
| mixed | 97 | 50.26% | mixed | 1 | 5.26% |
| others | 2 | 1.04% | others | 0 | 0.00% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| residential | 7 | 43.75% | residential | 15 | 75.00% |
| commercial | 0 | 0.00% | commercial | 0 | 0.00% |
| mixed | 8 | 50.00% | mixed | 5 | 25.00% |
| others | 1 | 6.25% | others | 0 | 0.00% |

| GROUP 4 | 18 | | GROUP 5 | 19 | |
|---|---|---|---|---|---|
| residential | 6 | 33.33% | residential | 16 | 84.21% |
| commercial | 0 | 0.00% | commercial | 0 | 0.00% |
| mixed | 12 | 66.67% | mixed | 3 | 15.79% |
| others | 0 | 0.00% | others | 0 | 0.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| residential | 12 | 63.16% | residential | 5 | 29.41% |
| commercial | 0 | 0.00% | commercial | 0 | 0.00% |
| mixed | 7 | 36.84% | mixed | 12 | 70.59% |
| others | 0 | 0.00% | others | 0 | 0.00% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| residential | 1 | 5.00% | residential | 4 | 23.53% |
| commercial | 0 | 0.00% | commercial | 0 | 0.00% |
| mixed | 19 | 95.00% | mixed | 14 | 82.35% |
| others | 0 | 0.00% | others | 0 | 0.00% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| residential | 2 | 16.67% | residential | 8 | 53.33% |
| commercial | 0 | 0.00% | commercial | 0 | 0.00% |
| mixed | 9 | 75.00% | mixed | 7 | 46.67% |
| others | 1 | 8.33% | others | 0 | 0.00% |

Question 2.6
What would you consider to be the general income
of the neighbourhood?


ALL GROUPS     136                    GROUP 1          15

mid to high     51    37.50%          mid to high      1     6.67%
mid             55    40.44%          mid             14    93.33%
low to mid      30    22.06%          low to mid       0     0.00%


GROUP 2          14                    GROUP 3           9

mid to high     10    71.43%          mid to high      3    33.33%
mid              3    21.43%          mid              0     0.00%
low to mid       1     7.14%          low to mid       6    66.67%


GROUP 4          13                    GROUP 5          15

mid to high     12    92.31%          mid to high      1     6.67%
mid              1     7.69%          mid              8    53.33%
low to mid       0     0.00%          low to mid       6    40.00%


GROUP 6          16                    GROUP 7          10

mid to high      2    12.50%          mid to high      3    30.00%
mid              9    56.25%          mid              5    50.00%
low to mid       5    31.25%          low to mid       2    20.00%


GROUP 8          14                    GROUP 9          13

mid to high      8    57.14%          mid to high      5    38.46%
mid              4    28.57%          mid              8    61.54%
low to mid       2    14.29%          low to mid       0     0.00%


GROUP 10          6                    GROUP 11         11

mid to high      5    83.33%          mid to high      1     9.09%
mid              0     0.00%          mid    .         3    27.27%
low to mid       1    16.67%          low to mid       7    63.64%

Question 2.7
Do you think your neighbourhood is?
(household size)


| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| very overcr. | 2 | 1.03% | very overcr. | 0 | 0.00% |
| little overcr. | 34 | 17.53% | little overcr. | 0 | 0.00% |
| just right | 152 | 78.35% | just right | 18 | 9.28% |
| too sparse | 6 | 3.09% | too sparse | 1 | 0.52% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| very overcr. | 0 | 0.00% | very overcr. | 0 | 0.00% |
| little overcr. | 6 | 37.50% | little overcr. | 7 | 35.00% |
| just right | 8 | 50.00% | just right | 13 | 65.00% |
| too sparse | 2 | 12.50% | too sparse | 0 | 0.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| very overcr. | 0 | 0.00% | very overcr. | 1 | 5.00% |
| little overcr. | 5 | 27.78% | little overcr. | 5 | 25.00% |
| just right | 12 | 66.67% | just right | 13 | 65.00% |
| too sparse | 1 | 5.56% | too sparse | 1 | 5.00% |


| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| very overcr. | 0 | 0.00% | very overcr. | 0 | 0.00% |
| little overcr. | 4 | 21.05% | little overcr. | 1 | 5.88% |
| just right | 15 | 78.95% | just right | 16 | 94.12% |
| too sparse | 0 | 0.00% | too sparse | 0 | 0.00% |


| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| very overcr. | 0 | 0.00% | very overcr. | 1 | 5.56% |
| little overcr. | 3 | 15.00% | little overcr. | 2 | 11.11% |
| just right | 17 | 85.00% | just right | 15 | 83.33% |
| too sparse | 0 | 0.00% | too sparse | 0 | 0.00% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| very overcr. | 0 | 0.00% | very overcr. | 0 | 0.00% |
| little overcr. | 0 | 0.00% | little overcr. | 1 | 6.67% |
| just right | 11 | 91.67% | just right | 14 | 93.33% |
| too sparse | 1 | 8.33% | too sparse | 0 | 0.00% |

Question 3.1
How would you rate the number of Bedrooms?

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 27 | 13.92% | poor/not so good | 3 | 15.79% |
| fair | 19 | 9.79% | fair | 2 | 10.53% |
| good/excellent | 148 | 76.29% | good/excellent | 14 | 73.68% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 6.25% | poor/not so good | 3 | 15.00% |
| fair | 0 | 0.00% | fair | 2 | 10.00% |
| good/excellent | 15 | 93.75% | good/excellent | 15 | 75.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 16.67% | poor/not so good | 2 | 10.00% |
| fair | 5 | 27.78% | fair | 0 | 0.00% |
| good/excellent | 10 | 55.56% | good/excellent | 18 | 90.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 10.53% | poor/not so good | 2 | 11.76% |
| fair | 0 | 0.00% | fair | 2 | 11.76% |
| good/excellent | 17 | 89.47% | good/excellent | 13 | 76.47% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 10.00% | poor/not so good | 3 | 16.67% |
| fair | 1 | 5.00% | fair | 3 | 16.67% |
| good/excellent | 17 | 85.00% | good/excellent | 12 | 66.67% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 8.33% | poor/not so good | 5 | 33.33% |
| fair | 2 | 16.67% | fair | 2 | 13.33% |
| good/excellent | 9 | 75.00% | good/excellent | 8 | 53.33% |

Question 3.2
How would you rate the size of individual rooms?


ALL GROUPS              194                GROUP 1               19

poor/not so good         19      9.79%     poor/not so good       1      5.26%
fair                     37     19.07%     fair                   6     31.58%
good/excellent          138     71.13%     good/excellent        12     63.16%


GROUP 2                  16                GROUP 3               20

poor/not so good          1      6.25%     poor/not so good       4     20.00%
fair                      3     18.75%     fair                   2     10.00%
good/excellent           12     75.00%     good/excellent        14     70.00%


GROUP 4                  18                GROUP 5               20

poor/not so good          3     16.67%     poor/not so good       1      5.00%
fair                      2     11.11%     fair                   1      5.00%
good/excellent           13     72.22%     good/excellent        18     90.00%


GROUP 6                  19                GROUP 7               17

poor/not so good          1      5.26%     poor/not so good       2     11.76%
fair                      4     21.05%     fair                   7     41.18%
good/excellent           14     73.68%     good/excellent         8     47.06%


GROUP 8                  20                GROUP 9               18

poor/not so good          3     15.00%     poor/not so good       1      5.56%
fair                      3     15.00%     fair                   3     16.67%
good/excellent           14     70.00%     good/excellent        14     77.78%


GROUP 10                 12                GROUP 11              15

poor/not so good          2     16.67%     poor/not so good       0      0.00%
fair                      2     16.67%     fair                   4     26.67%
good/excellent            8     66.67%     good/excellent        11     73.33%

Question 3.3
How would you rate the overall size of your home?

| | | | | | |
|---|---|---|---|---|---|
| ALL GROUPS | 193 | | GROUP 1 | 19 | |
| poor/not so good | 17 | 8.81% | poor/not so good | 3 | 15.79% |
| fair | 36 | 18.65% | fair | 3 | 15.79% |
| good/excellent | 140 | 72.54% | good/excellent | 13 | 68.42% |
| | | | | | |
| GROUP 2 | 16 | | GROUP 3 | 20 | |
| poor/not so good | 1 | 6.25% | poor/not so good | 0 | 0.00% |
| fair | 3 | 18.75% | fair | 5 | 25.00% |
| good/excellent | 12 | 75.00% | good/excellent | 15 | 75.00% |
| | | | | | |
| GROUP 4 | 18 | | GROUP 5 | 20 | |
| poor/not so good | 2 | 11.11% | poor/not so good | 1 | 5.00% |
| fair | 4 | 22.22% | fair | 2 | 10.00% |
| good/excellent | 12 | 66.67% | good/excellent | 17 | 85.00% |
| | | | | | |
| GROUP 6 | 19 | | GROUP 7 | 17 | |
| poor/not so good | 1 | 5.26% | poor/not so good | 2 | 11.76% |
| fair | 1 | 5.26% | fair | 6 | 35.29% |
| good/excellent | 17 | 89.47% | good/excellent | 9 | 52.94% |
| | | | | | |
| GROUP 8 | 20 | | GROUP 9 | 18 | |
| poor/not so good | 3 | 15.00% | poor/not so good | 1 | 5.56% |
| fair | 2 | 10.00% | fair | 4 | 22.22% |
| good/excellent | 15 | 75.00% | good/excellent | 13 | 72.22% |
| | | | | | |
| GROUP 10 | 12 | | GROUP 11 | 14 | |
| poor/not so good | 2 | 16.67% | poor/not so good | 1 | 7.14% |
| fair | 1 | 8.33% | fair | 5 | 35.71% |
| good/excellent | 9 | 75.00% | good/excellent | 8 | 57.14% |

Question 3.4
How would you rate the adequacy of closet and storage space?

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 52 | 26.80% | poor/not so good | 5 | 26.32% |
| fair | 47 | 24.23% | fair | 7 | 36.84% |
| good/excellent | 95 | 48.97% | good/excellent | 7 | 36.84% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 8 | 50.00% | poor/not so good | 8 | 40.00% |
| fair | 4 | 25.00% | fair | 2 | 10.00% |
| good/excellent | 4 | 25.00% | good/excellent | 10 | 50.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 5 | 27.78% | poor/not so good | 1 | 5.00% |
| fair | 5 | 27.78% | fair | 2 | 10.00% |
| good/excellent | 8 | 44.44% | good/excellent | 17 | 85.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 10.53% | poor/not so good | 6 | 35.29% |
| fair | 4 | 21.05% | fair | 6 | 35.29% |
| good/excellent | 13 | 68.42% | good/excellent | 5 | 29.41% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 5 | 25.00% | poor/not so good | 1 | 5.56% |
| fair | 4 | 20.00% | fair | 9 | 50.00% |
| good/excellent | 11 | 55.00% | good/excellent | 8 | 44.44% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 25.00% | poor/not so good | 8 | 53.33% |
| fair | 3 | 25.00% | fair | 1 | 6.67% |
| good/excellent | 6 | 50.00% | good/excellent | 6 | 40.00% |

Question 3.5
How would you rate the adequacy of bathrooms or toilets?


ALL GROUPS          194            GROUP 1             19

poor/not so good     32   16.49%    poor/not so good     2   10.53%
fair                 48   24.74%    fair                 7   36.84%
good/excellent      114   58.76%    good/excellent      10   52.63%


GROUP 2              16            GROUP 3             20

poor/not so good      1    6.25%    poor/not so good     6   30.00%
fair                  5   31.25%    fair                 5   25.00%
good/excellent       10   62.50%    good/excellent       9   45.00%


GROUP 4              18            GROUP 5             20

poor/not so good      4   22.22%    poor/not so good     1    5.00%
fair                  3   16.67%    fair                 5   25.00%
good/excellent       11   61.11%    good/excellent      14   70.00%


GROUP 6              19            GROUP 7             17

poor/not so good      2   10.53%    poor/not so good     6   35.29%
fair                  3   15.79%    fair                 6   35.29%
good/excellent       14   73.68%    good/excellent       5   29.41%


GROUP 8              20            GROUP 9             18

poor/not so good      6   30.00%    poor/not so good     0    0.00%
fair                  2   10.00%    fair                 7   38.89%
good/excellent       12   60.00%    good/excellent      11   61.11%


GROUP 10             12            GROUP 11            15

poor/not so good      2   16.67%    poor/not so good     2   13.33%
fair                  1    8.33%    fair                 4   26.67%
good/excellent        9   75.00%    good/excellent       9   60.00%

Question 3.6
How would you rate the layout of the rooms, stairs?

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 13 | 6.70% | poor/not so good | 3 | 15.79% |
| fair | 28 | 14.43% | fair | 2 | 10.53% |
| good/excellent | 153 | 78.87% | good/excellent | 14 | 73.68% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 2 | 10.00% |
| fair | 4 | 25.00% | fair | 3 | 15.00% |
| good/excellent | 12 | 75.00% | good/excellent | 15 | 75.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 4 | 22.22% | fair | 1 | 5.00% |
| good/excellent | 14 | 77.78% | good/excellent | 19 | 95.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 3 | 17.65% |
| fair | 2 | 10.53% | fair | 2 | 11.76% |
| good/excellent | 17 | 89.47% | good/excellent | 12 | 70.59% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.00% | poor/not so good | 2 | 11.11% |
| fair | 5 | 25.00% | fair | 0 | 0.00% |
| good/excellent | 14 | 70.00% | good/excellent | 16 | 88.89% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 16.67% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 5 | 33.33% |
| good/excellent | 10 | 83.33% | good/excellent | 10 | 66.67% |

Question 3.7
How would you rate the privacy in the home?

| ALL GROUPS | 191 | | GROUP 1 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 23 | 12.04% | poor/not so good | 1 | 5.56% |
| fair | 28 | 14.66% | fair | 1 | 5.56% |
| good/excellent | 140 | 73.30% | good/excellent | 16 | 88.89% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 6.25% | poor/not so good | 3 | 15.00% |
| fair | 2 | 12.50% | fair | 5 | 25.00% |
| good/excellent | 13 | 81.25% | good/excellent | 12 | 60.00% |

| GROUP 4 | 17 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 11.76% | poor/not so good | 1 | 5.00% |
| fair | 4 | 23.53% | fair | 4 | 20.00% |
| good/excellent | 11 | 64.71% | good/excellent | 15 | 75.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 21.05% | poor/not so good | 3 | 17.65% |
| fair | 2 | 10.53% | fair | 3 | 17.65% |
| good/excellent | 13 | 68.42% | good/excellent | 11 | 64.71% |

| GROUP 8 | 20 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 15.00% | poor/not so good | 1 | 5.88% |
| fair | 4 | 20.00% | fair | 1 | 5.88% |
| good/excellent | 13 | 65.00% | good/excellent | 15 | 88.24% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 16.67% | poor/not so good | 2 | 13.33% |
| fair | 0 | 0.00% | fair | 2 | 13.33% |
| good/excellent | 10 | 83.33% | good/excellent | 11 | 73.33% |

Question 3.8
How would you rate the insulation?

| | | | | | |
|---|---|---|---|---|---|
| **ALL GROUPS** | **188** | | **GROUP 1** | **19** | |
| poor/not so good | 59 | 30.41% | poor/not so good | 3 | 15.79% |
| fair | 39 | 20.10% | fair | 5 | 26.32% |
| good/excellent | 90 | 46.39% | good/excellent | 11 | 57.89% |
| **GROUP 2** | **15** | | **GROUP 3** | **19** | |
| poor/not so good | 6 | 40.00% | poor/not so good | 9 | 47.37% |
| fair | 2 | 13.33% | fair | 2 | 10.53% |
| good/excellent | 7 | 46.67% | good/excellent | 8 | 42.11% |
| **GROUP 4** | **18** | | **GROUP 5** | **17** | |
| poor/not so good | 7 | 38.89% | poor/not so good | 2 | 11.76% |
| fair | 5 | 27.78% | fair | 3 | 17.65% |
| good/excellent | 6 | 33.33% | good/excellent | 12 | 70.59% |
| **GROUP 6** | **19** | | **GROUP 7** | **17** | |
| poor/not so good | 2 | 10.53% | poor/not so good | 6 | 35.29% |
| fair | 4 | 21.05% | fair | 3 | 17.65% |
| good/excellent | 13 | 68.42% | good/excellent | 8 | 47.06% |
| **GROUP 8** | **19** | | **GROUP 9** | **18** | |
| poor/not so good | 8 | 42.11% | poor/not so good | 6 | 33.33% |
| fair | 3 | 15.79% | fair | 3 | 16.67% |
| good/excellent | 8 | 42.11% | good/excellent | 9 | 50.00% |
| **GROUP 10** | **12** | | **GROUP 11** | **15** | |
| poor/not so good | 3 | 25.00% | poor/not so good | 7 | 46.67% |
| fair | 4 | 33.33% | fair | 5 | 33.33% |
| good/excellent | 5 | 41.67% | good/excellent | 3 | 20.00% |

Question 3.9
How would you rate the parking


| ALL GROUPS | 162 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 39 | 24.07% | poor/not so good | 0 | 0.00% |
| fair | 26 | 16.05% | fair | 1 | 5.26% |
| good/excellent | 97 | 59.88% | good/excellent | 18 | 94.74% |


| GROUP 2 | 16 | | GROUP 3 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 25.00% | poor/not so good | 7 | 46.67% |
| fair | 1 | 6.25% | fair | 3 | 20.00% |
| good/excellent | 11 | 68.75% | good/excellent | 5 | 33.33% |


| GROUP 4 | 16 | | GROUP 5 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 5 | 31.25% | poor/not so good | 3 | 20.00% |
| fair | 2 | 12.50% | fair | 4 | 26.67% |
| good/excellent | 9 | 56.25% | good/excellent | 8 | 53.33% |


| GROUP 6 | 18 | | GROUP 7 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 5 | 33.33% |
| fair | 1 | 5.56% | fair | 2 | 13.33% |
| good/excellent | 17 | 94.44% | good/excellent | 8 | 53.33% |


| GROUP 8 | 17 | | GROUP 9 | 11 | |
|---|---|---|---|---|---|
| poor/not so good | 7 | 41.18% | poor/not so good | 4 | 36.36% |
| fair | 6 | 35.29% | fair | 0 | 0.00% |
| good/excellent | 4 | 23.53% | good/excellent | 7 | 63.64% |


| GROUP 10 | 12 | | GROUP 11 | 8 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 16.67% | poor/not so good | 2 | 25.00% |
| fair | 3 | 25.00% | fair | 3 | 37.50% |
| good/excellent | 7 | 58.33% | good/excellent | 3 | 37.50% |

Question 3.10
How would you rate the outside appearance of the home?


| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 30 | 15.46% | poor/not so good | 2 | 10.53% |
| fair | 57 | 29.38% | fair | 4 | 21.05% |
| good/excellent | 107 | 55.15% | good/excellent | 13 | 68.42% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 5 | 31.25% | poor/not so good | 6 | 30.00% |
| fair | 2 | 12.50% | fair | 5 | 25.00% |
| good/excellent | 9 | 56.25% | good/excellent | 9 | 45.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 11.11% | poor/not so good | 0 | 0.00% |
| fair | 7 | 38.89% | fair | 6 | 30.00% |
| good/excellent | 9 | 50.00% | good/excellent | 14 | 70.00% |


| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 4 | 23.53% |
| fair | 8 | 42.11% | fair | 2 | 11.76% |
| good/excellent | 11 | 57.89% | good/excellent | 11 | 64.71% |


| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 7 | 35.00% | poor/not so good | 2 | 11.11% |
| fair | 6 | 30.00% | fair | 8 | 44.44% |
| good/excellent | 7 | 35.00% | good/excellent | 8 | 44.44% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 8.33% | poor/not so good | 1 | 6.67% |
| fair | 3 | 25.00% | fair | 6 | 40.00% |
| good/excellent | 8 | 66.67% | good/excellent | 8 | 53.33% |

Question 3.11
How would you rate the amount of sunlight?


| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 26 | 13.40% | poor/not so good | 0 | 0.00% |
| fair | 34 | 17.53% | fair | 0 | 0.00% |
| good/excellent | 133 | 68.56% | good/excellent | 19 | 100.00% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 18.75% | poor/not so good | 7 | 35.00% |
| fair | 5 | 31.25% | fair | 2 | 10.00% |
| good/excellent | 8 | 50.00% | good/excellent | 11 | 55.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.56% | poor/not so good | 3 | 15.00% |
| fair | 2 | 11.11% | fair | 3 | 15.00% |
| good/excellent | 15 | 83.33% | good/excellent | 14 | 70.00% |


| GROUP 6 | 19 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.26% | poor/not so good | 3 | 18.75% |
| fair | 5 | 26.32% | fair | 6 | 37.50% |
| good/excellent | 13 | 68.42% | good/excellent | 7 | 43.75% |


| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 20.00% | poor/not so good | 0 | 0.00% |
| fair | 4 | 20.00% | fair | 2 | 11.11% |
| good/excellent | 12 | 60.00% | good/excellent | 16 | 88.89% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 8.33% | poor/not so good | 3 | 20.00% |
| fair | 3 | 25.00% | fair | 2 | 13.33% |
| good/excellent | 8 | 66.67% | good/excellent | 10 | 66.67% |

Question 3.12
How would you rate the views looking out?


| ALL GROUPS | 193 | | | GROUP 1 | 19 | |
|---|---|---|---|---|---|---|
| poor/not so good | 38 | 19.59% | | poor/not so good | 1 | 5.26% |
| fair | 51 | 26.29% | | fair | 3 | 15.79% |
| good/excellent | 104 | 53.61% | | good/excellent | 15 | 78.95% |


| GROUP 2 | 16 | | | GROUP 3 | 20 | |
|---|---|---|---|---|---|---|
| poor/not so good | 6 | 37.50% | | poor/not so good | 6 | 30.00% |
| fair | 4 | 25.00% | | fair | 5 | 25.00% |
| good/excellent | 6 | 37.50% | | good/excellent | 9 | 45.00% |


| GROUP 4 | 18 | | | GROUP 5 | 20 | |
|---|---|---|---|---|---|---|
| poor/not so good | 4 | 22.22% | | poor/not so good | 6 | 30.00% |
| fair | 11 | 61.11% | | fair | 3 | 15.00% |
| good/excellent | 3 | 16.67% | | good/excellent | 11 | 55.00% |


| GROUP 6 | 19 | | | GROUP 7 | 16 | |
|---|---|---|---|---|---|---|
| poor/not so good | 3 | 15.79% | | poor/not so good | 6 | 37.50% |
| fair | 2 | 10.53% | | fair | 7 | 43.75% |
| good/excellent | 14 | 73.68% | | good/excellent | 3 | 18.75% |


| GROUP 8 | 20 | | | GROUP 9 | 18 | |
|---|---|---|---|---|---|---|
| poor/not so good | 4 | 20.00% | | poor/not so good | 0 | 0.00% |
| fair | 7 | 35.00% | | fair | 2 | 11.11% |
| good/excellent | 9 | 45.00% | | good/excellent | 16 | 88.89% |


| GROUP 10 | 12 | | | GROUP 11 | 15 | |
|---|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | | poor/not so good | 2 | 13.33% |
| fair | 3 | 25.00% | | fair | 4 | 26.67% |
| good/excellent | 9 | 75.00% | | good/excellent | 9 | 60.00% |

Question 4.1
How would you rate the cleanliness of the streets?

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 14 | 7.22% | poor/not so good | 1 | 5.26% |
| fair | 34 | 17.53% | fair | 0 | 0.00% |
| good/excellent | 146 | 75.26% | good/excellent | 18 | 94.74% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 6.25% | poor/not so good | 1 | 5.00% |
| fair | 3 | 18.75% | fair | 7 | 35.00% |
| good/excellent | 12 | 75.00% | good/excellent | 12 | 60.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 11.11% | poor/not so good | 0 | 0.00% |
| fair | 3 | 16.67% | fair | 4 | 20.00% |
| good/excellent | 13 | 72.22% | good/excellent | 16 | 80.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.26% | poor/not so good | 1 | 5.88% |
| fair | 4 | 21.05% | fair | 3 | 17.65% |
| good/excellent | 14 | 73.68% | good/excellent | 13 | 76.47% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 6 | 30.00% | poor/not so good | 0 | 0.00% |
| fair | 2 | 10.00% | fair | 2 | 11.11% |
| good/excellent | 12 | 60.00% | good/excellent | 16 | 88.89% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 8.33% | poor/not so good | 0 | 0.00% |
| fair | 2 | 16.67% | fair | 4 | 26.67% |
| good/excellent | 9 | 75.00% | good/excellent | 11 | 73.33% |

Question 4.2
How would you rate the maintenance of the buildings
  in the neighbourhood?


ALL GROUPS                186              GROUP 1                  19

poor/not so good    21    11.29%          poor/not so good    1     5.26%
fair                50    26.88%          fair                2    10.53%
good/excellent     115    61.83%          good/excellent     16    84.21%


GROUP 2                    16              GROUP 3                  20

poor/not so good     2    12.50%          poor/not so good    3    15.00%
fair                 2    12.50%          fair                8    40.00%
good/excellent      12    75.00%          good/excellent      9    45.00%


GROUP 4                    18              GROUP 5                  19

poor/not so good     1     5.56%          poor/not so good    2    10.53%
fair                 3    16.67%          fair                5    26.32%
good/excellent      14    77.78%          good/excellent     12    63.16%


GROUP 6                    16              GROUP 7                  16

poor/not so good     3    18.75%          poor/not so good    0     0.00%
fair                 4    25.00%          fair                6    37.50%
good/excellent       9    56.25%          good/excellent     10    62.50%


GROUP 8                    20              GROUP 9                  16

poor/not so good     7    35.00%          poor/not so good    1     6.25%
fair                 7    35.00%          fair                6    37.50%
good/excellent       6    30.00%          good/excellent      9    56.25%


GROUP 10                   12              GROUP 11                 14

poor/not so good     0     0.00%          poor/not so good    1     7.14%
fair                 2    16.67%          fair                5    35.71%
good/excellent      10    83.33%          good/excellent      8    57.14%

Question 4.3
How would you rate the safety from street traffic?

| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 31 | 16.06% | poor/not so good | 3 | 15.79% |
| fair | 42 | 21.76% | fair | 2 | 10.53% |
| good/excellent | 120 | 62.18% | good/excellent | 14 | 73.68% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 18.75% | poor/not so good | 3 | 15.00% |
| fair | 4 | 25.00% | fair | 3 | 15.00% |
| good/excellent | 9 | 56.25% | good/excellent | 14 | 70.00% |

| GROUP 4 | 17 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.88% | poor/not so good | 2 | 10.00% |
| fair | 5 | 29.41% | fair | 2 | 10.00% |
| good/excellent | 11 | 64.71% | good/excellent | 16 | 80.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 21.05% | poor/not so good | 1 | 5.88% |
| fair | 2 | 10.53% | fair | 3 | 17.65% |
| good/excellent | 13 | 68.42% | good/excellent | 13 | 76.47% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 20.00% | poor/not so good | 4 | 22.22% |
| fair | 9 | 45.00% | fair | 4 | 22.22% |
| good/excellent | 7 | 35.00% | good/excellent | 10 | 55.56% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 25.00% | poor/not so good | 3 | 20.00% |
| fair | 2 | 16.67% | fair | 6 | 40.00% |
| good/excellent | 7 | 58.33% | good/excellent | 6 | 40.00% |

Question 4.4
How would you rate the security from crime?

| ALL GROUPS | 183 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 34 | 18.58% | poor/not so good | 3 | 15.79% |
| fair | 55 | 30.05% | fair | 3 | 15.79% |
| good/excellent | 96 | 52.46% | good/excellent | 13 | 68.42% |

| GROUP 2 | 15 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 13.33% | poor/not so good | 5 | 26.32% |
| fair | 7 | 46.67% | fair | 4 | 21.05% |
| good/excellent | 6 | 40.00% | good/excellent | 10 | 52.63% |

| GROUP 4 | 17 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 6 | 30.00% |
| fair | 5 | 29.41% | fair | 4 | 20.00% |
| good/excellent | 12 | 70.59% | good/excellent | 10 | 50.00% |

| GROUP 6 | 17 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.88% | poor/not so good | 1 | 5.88% |
| fair | 8 | 47.06% | fair | 5 | 29.41% |
| good/excellent | 8 | 47.06% | good/excellent | 11 | 64.71% |

| GROUP 8 | 19 | | GROUP 9 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 8 | 42.11% | poor/not so good | 3 | 20.00% |
| fair | 5 | 26.32% | fair | 5 | 33.33% |
| good/excellent | 6 | 31.58% | good/excellent | 7 | 46.67% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 8.33% | poor/not so good | 4 | 26.67% |
| fair | 4 | 33.33% | fair | 5 | 33.33% |
| good/excellent | 7 | 58.33% | good/excellent | 6 | 40.00% |

Question 4.5
How would you rate the noise from neighbours?

| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 31 | 16.06% | poor/not so good | 0 | 0.00% |
| fair | 46 | 23.83% | fair | 1 | 5.26% |
| good/excellent | 116 | 60.10% | good/excellent | 18 | 94.74% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 6.25% | poor/not so good | 8 | 40.00% |
| fair | 5 | 31.25% | fair | 4 | 20.00% |
| good/excellent | 10 | 62.50% | good/excellent | 8 | 40.00% |

| GROUP 4 | 17 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 17.65% | poor/not so good | 3 | 15.00% |
| fair | 5 | 29.41% | fair | 5 | 25.00% |
| good/excellent | 9 | 52.94% | good/excellent | 12 | 60.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 21.05% | poor/not so good | 4 | 23.53% |
| fair | 3 | 15.79% | fair | 1 | 5.88% |
| good/excellent | 12 | 63.16% | good/excellent | 12 | 70.59% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 5 | 25.00% | poor/not so good | 2 | 11.11% |
| fair | 5 | 25.00% | fair | 6 | 33.33% |
| good/excellent | 10 | 50.00% | good/excellent | 9 | 50.00% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 6.67% |
| fair | 4 | 33.33% | fair | 7 | 46.67% |
| good/excellent | 8 | 66.67% | good/excellent | 7 | 46.67% |

Question 4.6
How would you rate the freedom from traffic noise?


| ALL GROUPS | 192 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 57 | 29.69% | poor/not so good | 5 | 26.32% |
| fair | 51 | 26.56% | fair | 3 | 15.79% |
| good/excellent | 84 | 43.75% | good/excellent | 11 | 57.89% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 3 | 15.00% |
| fair | 4 | 25.00% | fair | 7 | 35.00% |
| good/excellent | 12 | 75.00% | good/excellent | 10 | 50.00% |

| GROUP 4 | 17 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 7 | 41.18% | poor/not so good | 10 | 50.00% |
| fair | 5 | 29.41% | fair | 2 | 10.00% |
| good/excellent | 5 | 29.41% | good/excellent | 8 | 40.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 6 | 31.58% | poor/not so good | 3 | 17.65% |
| fair | 5 | 26.32% | fair | 3 | 17.65% |
| good/excellent | 8 | 42.11% | good/excellent | 11 | 64.71% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 9 | 45.00% | poor/not so good | 6 | 33.33% |
| fair | 8 | 40.00% | fair | 5 | 27.78% |
| good/excellent | 3 | 15.00% | good/excellent | 7 | 38.89% |

| GROUP 10 | 11 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 8 | 53.33% |
| fair | 6 | 54.55% | fair | 3 | 20.00% |
| good/excellent | 5 | 45.45% | good/excellent | 4 | 26.67% |

Question 4.7
How would you rate the other street noise?


| ALL GROUPS | 63 | | GROUP 1 | 2 | |
|---|---|---|---|---|---|
| poor/not so good | 50 | 79.37% | poor/not so good | 2 | 100.00% |
| fair | 11 | 17.46% | fair | 0 | 0.00% |
| good/excellent | 2 | 3.17% | good/excellent | 0 | 0.00% |


| GROUP 2 | 5 | | GROUP 3 | 11 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 80.00% | poor/not so good | 10 | 90.91% |
| fair | 0 | 0.00% | fair | 1 | 9.09% |
| good/excellent | 1 | 20.00% | good/excellent | 0 | 0.00% |


| GROUP 4 | 7 | | GROUP 5 | 4 | |
|---|---|---|---|---|---|
| poor/not so good | 5 | 71.43% | poor/not so good | 3 | 75.00% |
| fair | 2 | 28.57% | fair | 1 | 25.00% |
| good/excellent | 0 | 0.00% | good/excellent | 0 | 0.00% |


| GROUP 6 | 6 | | GROUP 7 | 5 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 66.67% | poor/not so good | 3 | 60.00% |
| fair | 2 | 33.33% | fair | 2 | 40.00% |
| good/excellent | 0 | 0.00% | good/excellent | 0 | 0.00% |


| GROUP 8 | 11 | | GROUP 9 | 4 | |
|---|---|---|---|---|---|
| poor/not so good | 10 | 90.91% | poor/not so good | 4 | 100.00% |
| fair | 1 | 9.09% | fair | 0 | 0.00% |
| good/excellent | 0 | 0.00% | good/excellent | 0 | 0.00% |


| GROUP 10 | 7 | | GROUP 11 | 1 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 57.14% | poor/not so good | 1 | 100.00% |
| fair | 2 | 28.57% | fair | 0 | 0.00% |
| good/excellent | 1 | 14.29% | good/excellent | 0 | 0.00% |

Question 4.8
How would you rate the parking in the neighbourhood?


ALL GROUPS          190                 GROUP 1             19

poor/not so good     88   46.32%        poor/not so good     3   15.79%
fair                 38   20.00%        fair                 2   10.53%
good/excellent       64   33.68%        good/excellent      14   73.68%


GROUP 2              15                  GROUP 3             19

poor/not so good      8   53.33%        poor/not so good    12   63.16%
fair                  7   46.67%        fair                 5   26.32%
good/excellent        0    0.00%        good/excellent       2   10.53%


GROUP 4              17                  GROUP 5             19

poor/not so good      7   41.18%        poor/not so good     4   21.05%
fair                  7   41.18%        fair                 4   21.05%
good/excellent        3   17.65%        good/excellent      11   57.89%


GROUP 6              19                  GROUP 7             17

poor/not so good      1    5.26%        poor/not so good     7   41.18%
fair                  2   10.53%        fair                 4   23.53%
good/excellent       16   84.21%        good/excellent       6   35.29%


GROUP 8              20                  GROUP 9             18

poor/not so good     18   90.00%        poor/not so good    12   66.67%
fair                  1    5.00%        fair                 2   11.11%
good/excellent        1    5.00%        good/excellent       4   22.22%


GROUP 10             12                  GROUP 11            15

poor/not so good      8   66.67%        poor/not so good     8   53.33%
fair                  1    8.33%        fair                 3   20.00%
good/excellent        3   25.00%        good/excellent       4   26.67%

Question 4.9
How would you rate the type of neighbours

| ALL GROUPS | 179 | | GROUP 1 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 5 | 2.79% | poor/not so good | 0 | 0.00% |
| fair | 25 | 13.97% | fair | 1 | 5.56% |
| good/excellent | 149 | 83.24% | good/excellent | 17 | 94.44% |

| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 6.25% | poor/not so good | 1 | 5.26% |
| fair | 4 | 25.00% | fair | 4 | 21.05% |
| good/excellent | 11 | 68.75% | good/excellent | 14 | 73.68% |

| GROUP 4 | 15 | | GROUP 5 | 16 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 6.25% |
| fair | 0 | 0.00% | fair | 1 | 6.25% |
| good/excellent | 15 | 100.00% | good/excellent | 14 | 87.50% |

| GROUP 6 | 18 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 3 | 16.67% | fair | 1 | 6.25% |
| good/excellent | 15 | 83.33% | good/excellent | 15 | 93.75% |

| GROUP 8 | 20 | | GROUP 9 | 16 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 10.00% | poor/not so good | 0 | 0.00% |
| fair | 4 | 20.00% | fair | 2 | 12.50% |
| good/excellent | 14 | 70.00% | good/excellent | 14 | 87.50% |

| GROUP 10 | 12 | | GROUP 11 | 13 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 2 | 16.67% | fair | 3 | 23.08% |
| good/excellent | 10 | 83.33% | good/excellent | 10 | 76.92% |

Question 4.10
How would you rate the air quality?

| ALL GROUPS | 187 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 20 | 10.70% | poor/not so good | 0 | 0.00% |
| fair | 54 | 28.88% | fair | 4 | 21.05% |
| good/excellent | 113 | 60.43% | good/excellent | 15 | 78.95% |

| GROUP 2 | 16 | | GROUP 3 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 12.50% | poor/not so good | 3 | 16.67% |
| fair | 5 | 31.25% | fair | 5 | 27.78% |
| good/excellent | 9 | 56.25% | good/excellent | 10 | 55.56% |

| GROUP 4 | 17 | | GROUP 5 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.88% | poor/not so good | 1 | 5.26% |
| fair | 5 | 29.41% | fair | 4 | 21.05% |
| good/excellent | 11 | 64.71% | good/excellent | 14 | 73.68% |

| GROUP 6 | 19 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 6.25% |
| fair | 7 | 36.84% | fair | 5 | 31.25% |
| good/excellent | 12 | 63.16% | good/excellent | 10 | 62.50% |

| GROUP 8 | 19 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 8 | 42.11% | poor/not so good | 2 | 11.11% |
| fair | 7 | 36.84% | fair | 8 | 44.44% |
| good/excellent | 4 | 21.05% | good/excellent | 8 | 44.44% |

| GROUP 10 | 12 | | GROUP 11 | 14 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 16.67% | poor/not so good | 0 | 0.00% |
| fair | 2 | 16.67% | fair | 2 | 14.29% |
| good/excellent | 8 | 66.67% | good/excellent | 12 | 85.71% |

Question 4.11
How would you rate the freedom from odour or fumes?

| ALL GROUPS | 190 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 35 | 18.42% | poor/not so good | 2 | 10.53% |
| fair | 48 | 25.26% | fair | 3 | 15.79% |
| good/excellent | 107 | 56.32% | good/excellent | 14 | 73.68% |

| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 12.50% | poor/not so good | 5 | 26.32% |
| fair | 3 | 18.75% | fair | 4 | 21.05% |
| good/excellent | 14 | 87.50% | good/excellent | 10 | 52.63% |

| GROUP 4 | 16 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 18.75% | poor/not so good | 5 | 25.00% |
| fair | 4 | 25.00% | fair | 6 | 30.00% |
| good/excellent | 9 | 56.25% | good/excellent | 9 | 45.00% |

| GROUP 6 | 18 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.56% | poor/not so good | 2 | 11.76% |
| fair | 7 | 38.89% | fair | 2 | 11.76% |
| good/excellent | 10 | 55.56% | good/excellent | 13 | 76.47% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 9 | 45.00% | poor/not so good | 3 | 16.67% |
| fair | 2 | 10.00% | fair | 9 | 50.00% |
| good/excellent | 9 | 45.00% | good/excellent | 6 | 33.33% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 16.67% | poor/not so good | 1 | 6.67% |
| fair | 2 | 16.67% | fair | 3 | 20.00% |
| good/excellent | 8 | 66.67% | good/excellent | 11 | 73.33% |

Question 4.12
How would you rate the grocery and convenience shopping
  in your neighbourhood?

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 36 | 18.56% | poor/not so good | 2 | 10.53% |
| fair | 24 | 12.37% | fair | 4 | 21.05% |
| good/excellent | 134 | 69.07% | good/excellent | 13 | 68.42% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 6.25% | poor/not so good | 1 | 5.00% |
| fair | 0 | 0.00% | fair | 3 | 15.00% |
| good/excellent | 15 | 93.75% | good/excellent | 16 | 80.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 9 | 45.00% |
| fair | 0 | 0.00% | fair | 4 | 20.00% |
| good/excellent | 18 | 100.00% | good/excellent | 7 | 35.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 12 | 63.16% | poor/not so good | 1 | 5.88% |
| fair | 4 | 21.05% | fair | 1 | 5.88% |
| good/excellent | 3 | 15.79% | good/excellent | 15 | 88.24% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 15.00% | poor/not so good | 2 | 11.11% |
| fair | 1 | 5.00% | fair | 2 | 11.11% |
| good/excellent | 16 | 80.00% | good/excellent | 14 | 77.78% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 5 | 33.33% |
| fair | 1 | 8.33% | fair | 4 | 26.67% |
| good/excellent | 11 | 91.67% | good/excellent | 6 | 40.00% |

Question 4.13
How would you rate the doctors/clinics/drug stores you use?


| ALL GROUPS | 170 | | GROUP 1 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 7 | 4.12% | poor/not so good | 1 | 5.56% |
| fair | 8 | 4.71% | fair | 4 | 22.22% |
| good/excellent | 155 | 91.18% | good/excellent | 13 | 72.22% |

| GROUP 2 | 12 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 12 | 100.00% | good/excellent | 19 | 100.00% |

| GROUP 4 | 13 | | GROUP 5 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 5 | 29.41% |
| fair | 0 | 0.00% | fair | 2 | 11.76% |
| good/excellent | 13 | 100.00% | good/excellent | 10 | 58.82% |

| GROUP 6 | 16 | | GROUP 7 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 16 | 100.00% | good/excellent | 15 | 100.00% |

| GROUP 8 | 18 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 1 | 5.88% |
| good/excellent | 18 | 100.00% | good/excellent | 16 | 94.12% |

| GROUP 10 | 12 | | GROUP 11 | 13 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 7.69% |
| fair | 1 | 8.33% | fair | 0 | 0.00% |
| good/excellent | 11 | 91.67% | good/excellent | 12 | 92.31% |

Question 4.14
How would you rate the schools for your children?

| ALL GROUPS | 33 | | GROUP 1 | 4 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 9.09% | poor/not so good | 0 | 0.00% |
| fair | 2 | 6.06% | fair | 1 | 25.00% |
| good/excellent | 28 | 84.85% | good/excellent | 3 | 75.00% |

| GROUP 2 | 7 | | GROUP 3 | 3 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 1 | 14.29% | fair | 0 | 0.00% |
| good/excellent | 6 | 85.71% | good/excellent | 3 | 100.00% |

| GROUP 4 | 3 | | GROUP 5 | 5 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 20.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 3 | 100.00% | good/excellent | 4 | 80.00% |

| GROUP 6 | 2 | | GROUP 7 | 3 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 33.33% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 2 | 100.00% | good/excellent | 2 | 66.67% |

| GROUP 8 | 20 | | GROUP 9 | 1 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 2 | 100.00% | good/excellent | 1 | 100.00% |

| GROUP 10 | 3 | | GROUP 11 | 0 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 33.33% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 2 | 66.67% | good/excellent | 0 | 0.00% |

Question 4.15
How would you rate the children's playground?

| ALL GROUPS | 100 | | GROUP 1 | 8 | |
|---|---|---|---|---|---|
| poor/not so good | 7 | 7.00% | poor/not so good | 2 | 25.00% |
| fair | 13 | 13.00% | fair | 1 | 12.50% |
| good/excellent | 80 | 80.00% | good/excellent | 5 | 62.50% |

| GROUP 2 | 14 | | GROUP 3 | 11 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 9.09% |
| fair | 1 | 7.14% | fair | 1 | 9.09% |
| good/excellent | 13 | 92.86% | good/excellent | 9 | 81.82% |

| GROUP 4 | 6 | | GROUP 5 | 5 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 20.00% |
| fair | 0 | 0.00% | fair | 1 | 20.00% |
| good/excellent | 6 | 100.00% | good/excellent | 3 | 60.00% |

| GROUP 6 | 12 | | GROUP 7 | 7 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 8.33% | poor/not so good | 2 | 28.57% |
| fair | 2 | 16.67% | fair | 1 | 14.29% |
| good/excellent | 9 | 75.00% | good/excellent | 4 | 57.14% |

| GROUP 8 | 14 | | GROUP 9 | 10 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 1 | 7.14% | fair | 1 | 10.00% |
| good/excellent | 13 | 92.86% | good/excellent | 9 | 90.00% |

| GROUP 10 | 9 | | GROUP 11 | 4 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 3 | 33.33% | fair | 1 | 25.00% |
| good/excellent | 6 | 66.67% | good/excellent | 3 | 75.00% |

Question 4.16
How would you rate the churches and community facilities?

| ALL GROUPS | 124 | | GROUP 1 | 14 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 2.42% | poor/not so good | 1 | 7.14% |
| fair | 7 | 5.65% | fair | 1 | 7.14% |
| good/excellent | 114 | 91.94% | good/excellent | 12 | 85.71% |

| GROUP 2 | 11 | | GROUP 3 | 13 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 1 | 7.69% |
| good/excellent | 11 | 100.00% | good/excellent | 12 | 92.31% |

| GROUP 4 | 12 | | GROUP 5 | 11 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 9.09% |
| fair | 0 | 0.00% | fair | 2 | 18.18% |
| good/excellent | 12 | 100.00% | good/excellent | 8 | 72.73% |

| GROUP 6 | 6 | | GROUP 7 | 11 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 9.09% |
| fair | 1 | 16.67% | fair | 0 | 0.00% |
| good/excellent | 5 | 83.33% | good/excellent | 10 | 90.91% |

| GROUP 8 | 19 | | GROUP 9 | 12 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 1 | 5.26% | fair | 0 | 0.00% |
| good/excellent | 18 | 94.74% | good/excellent | 12 | 100.00% |

| GROUP 10 | 11 | | GROUP 11 | 4 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 1 | 24.00% |
| good/excellent | 11 | 100.00% | good/excellent | 3 | 75.00% |

Question 4.17
How would you rate the entertainment and social clubs?


| ALL GROUPS | 123 | | GROUP 1 | 10 | |
|---|---|---|---|---|---|
| poor/not so good | 18 | 14.63% | poor/not so good | 4 | 40.00% |
| fair | 15 | 12.20% | fair | 2 | 20.00% |
| good/excellent | 90 | 73.17% | good/excellent | 4 | 40.00% |


| GROUP 2 | 9 | | GROUP 3 | 12 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 11.11% | poor/not so good | 1 | 8.33% |
| fair | 1 | 11.11% | fair | 1 | 8.33% |
| good/excellent | 7 | 77.78% | good/excellent | 10 | 83.33% |


| GROUP 4 | 13 | | GROUP 5 | 13 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 7.69% | poor/not so good | 6 | 46.15% |
| fair | 1 | 7.69% | fair | 1 | 7.69% |
| good/excellent | 11 | 84.62% | good/excellent | 6 | 46.15% |


| GROUP 6 | 8 | | GROUP 7 | 12 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 37.50% | poor/not so good | 1 | 8.33% |
| fair | 0 | 0.00% | fair | 1 | 8.33% |
| good/excellent | 5 | 62.50% | good/excellent | 10 | 83.33% |


| GROUP 8 | 19 | | GROUP 9 | 12 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 2 | 10.53% | fair | 2 | 16.67% |
| good/excellent | 17 | 89.47% | good/excellent | 10 | 83.33% |


| GROUP 10 | 7 | | GROUP 11 | 8 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 12.50% |
| fair | 0 | 0.00% | fair | 4 | 50.00% |
| good/excellent | 7 | 100.00% | ·good/excellent | 3 | 37.50% |

Question 4.18
How would you rate the general shopping?

| ALL GROUPS | 179 | | GROUP 1 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 30 | 16.76% | poor/not so good | 7 | 46.67% |
| fair | 26 | 14.53% | fair | 0 | 0.00% |
| good/excellent | 123 | 68.72% | good/excellent | 8 | 53.33% |

| GROUP 2 | 16 | | GROUP 3 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 3 | 16.67% |
| fair | 0 | 0.00% | fair | 2 | 11.11% |
| good/excellent | 16 | 100.00% | good/excellent | 13 | 72.22% |

| GROUP 4 | 17 | | GROUP 5 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 6 | 33.33% |
| fair | 2 | 11.76% | fair | 5 | 27.78% |
| good/excellent | 15 | 88.24% | good/excellent | 7 | 38.89% |

| GROUP 6 | 15 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 7 | 46.67% | poor/not so good | 0 | 0.00% |
| fair | 2 | 13.33% | fair | 3 | 17.65% |
| good/excellent | 6 | 40.00% | good/excellent | 14 | 82.35% |

| GROUP 8 | 20 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.00% | poor/not so good | 1 | 5.88% |
| fair | 5 | 25.00% | fair | 2 | 11.76% |
| good/excellent | 14 | 70.00% | good/excellent | 14 | 82.35% |

| GROUP 10 | 12 | | GROUP 11 | 14 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 16.67% | poor/not so good | 3 | 21.43% |
| fair | 1 | 8.33% | fair | 4 | 28.57% |
| good/excellent | 9 | 75.00% | good/excellent | 7 | 50.00% |

Question 4.19
How would you rate the public transit that you use?


| ALL GROUPS | 156 | | GROUP 1 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 10 | 6.41% | poor/not so good | 0 | 0.00% |
| fair | 13 | 8.33% | fair | 0 | 0.00% |
| good/excellent | 133 | 85.26% | good/excellent | 17 | 100.00% |


| GROUP 2 | 11 | | GROUP 3 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 18.18% | poor/not so good | 3 | 17.65% |
| fair | 0 | 0.00% | fair | 1 | 5.88% |
| good/excellent | 9 | 81.82% | good/excellent | 13 | 76.47% |


| GROUP 4 | 14 | | GROUP 5 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 2 | 14.29% | fair | 0 | 0.00% |
| good/excellent | 12 | 85.71% | good/excellent | 18 | 100.00% |


| GROUP 6 | 16 | | GROUP 7 | 12 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 8.33% |
| fair | 2 | 12.50% | fair | 2 | 16.67% |
| good/excellent | 14 | 87.50% | good/excellent | 9 | 75.00% |


| GROUP 8 | 17 | | GROUP 9 | 13 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 5.88% | poor/not so good | 1 | 7.69% |
| fair | 3 | 17.65% | fair | 0 | 0.00% |
| good/excellent | 13 | 76.47% | good/excellent | 12 | 92.31% |


| GROUP 10 | 10 | | GROUP 11 | 11 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 20.00% | poor/not so good | 0 | 0.00% |
| fair | 1 | 10.00% | fair | 2 | 18.18% |
| good/excellent | 7 | 70.00% | good/excellent | 9 | 81.82% |

Question 4.20
How would you rate the street activities

| ALL GROUPS | 55 | | GROUP 1 | 6 | |
|---|---|---|---|---|---|
| poor/not so good | 5 | 9.09% | poor/not so good | 0 | 0.00% |
| fair | 5 | 9.09% | fair | 1 | 16.67% |
| good/excellent | 45 | 81.82% | good/excellent | 5 | 83.33% |

| GROUP 2 | 8 | | GROUP 3 | 3 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 8 | 100.00% | good/excellent | 3 | 100.00% |

| GROUP 4 | 7 | | GROUP 5 | 1 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 7 | 100.00% | good/excellent | 1 | 100.00% |

| GROUP 6 | 0 | | GROUP 7 | 5 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 20.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 0 | 0.00% | good/excellent | 4 | 80.00% |

| GROUP 8 | 12 | | GROUP 9 | 7 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 25.00% | poor/not so good | 1 | 14.29% |
| fair | 2 | 16.67% | fair | 1 | 14.29% |
| good/excellent | 7 | 58.33% | good/excellent | 5 | 71.43% |

| GROUP 10 | 6 | | GROUP 11 | 0 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 1 | 16.67% | fair | 0 | 0.00% |
| good/excellent | 5 | 83.33% | good/excellent | 0 | 0.00% |

Question 4.22
How would you rate the condition of sidewalks?


| ALL GROUPS | 138 | | GROUP 1 | 0 | |
|---|---|---|---|---|---|
| poor/not so good | 21 | 15.22% | poor/not so good | 0 | 0.00% |
| fair | 21 | 15.22% | fair | 0 | 0.00% |
| good/excellent | 96 | 69.57% | good/excellent | 0 | 0.00% |

| GROUP 2 | 16 | | GROUP 3 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 6.25% | poor/not so good | 3 | 17.65% |
| fair | 2 | 12.50% | fair | 1 | 5.88% |
| good/excellent | 13 | 81.25% | good/excellent | 13 | 76.47% |

| GROUP 4 | 17 | | GROUP 5 | 0 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 1 | 5.88% | fair | 0 | 0.00% |
| good/excellent | 16 | 94.12% | good/excellent | 0 | 0.00% |

| GROUP 6 | 15 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 13.33% | poor/not so good | 0 | 0.00% |
| fair | 2 | 13.33% | fair | 2 | 12.50% |
| good/excellent | 11 | 73.33% | good/excellent | 14 | 87.50% |

| GROUP 8 | 14 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 28.57% | poor/not so good | 1 | 5.56% |
| fair | 1 | 7.14% | fair | 7 | 38.89% |
| good/excellent | 9 | 64.29% | good/excellent | 10 | 55.56% |

| GROUP 10 | 10 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 5 | 50.00% | poor/not so good | 5 | 33.33% |
| fair | 1 | 10.00% | fair | 4 | 26.67% |
| good/excellent | 4 | 40.00% | good/excellent | 6 | 40.00% |

Question 5.1
How would you rate the walking distance to your work?

| ALL GROUPS | 127 | | GROUP 1 | 10 | |
|---|---|---|---|---|---|
| poor/not so good | 52 | 40.94% | poor/not so good | 5 | 50.00% |
| fair | 8 | 6.30% | fair | 2 | 20.00% |
| good/excellent | 67 | 52.76% | good/excellent | 3 | 30.00% |

| GROUP 2 | 15 | | GROUP 3 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 13.33% | poor/not so good | 6 | 33.33% |
| fair | 1 | 6.67% | fair | 0 | 0.00% |
| good/excellent | 12 | 80.00% | good/excellent | 12 | 66.67% |

| GROUP 4 | 13 | | GROUP 5 | 12 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 30.77% | poor/not so good | 6 | 50.00% |
| fair | 2 | 15.38% | fair | 0 | 0.00% |
| good/excellent | 7 | 53.85% | good/excellent | 6 | 50.00% |

| GROUP 6 | 2 | | GROUP 7 | 10 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 50.00% | poor/not so good | 6 | 60.00% |
| fair | 0 | 0.00% | fair | 1 | 10.00% |
| good/excellent | 1 | 50.00% | good/excellent | 3 | 30.00% |

| GROUP 8 | 15 | | GROUP 9 | 10 | |
|---|---|---|---|---|---|
| poor/not so good | 9 | 60.00% | poor/not so good | 3 | 30.00% |
| fair | 0 | 0.00% | fair | 1 | 10.00% |
| good/excellent | 6 | 40.00% | good/excellent | 6 | 60.00% |

| GROUP 10 | 10 | | GROUP 11 | 12 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 30.00% | poor/not so good | 7 | 58.33% |
| fair | 0 | 0.00% | fair | 1 | 8.33% |
| good/excellent | 7 | 70.00% | good/excellent | 4 | 33.33% |

Question 5.2
How would you rate the walking distance to stores

| ALL GROUPS | 192 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 19 | 9.90% | poor/not so good | 0 | 0.00% |
| fair | 11 | 5.73% | fair | 1 | 5.26% |
| good/excellent | 162 | 84.38% | good/excellent | 18 | 94.74% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 3 | 15.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 16 | 100.00% | good/excellent | 17 | 85.00% |

| GROUP 4 | 18 | | GROUP 5 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 10 | 52.63% |
| fair | 0 | 0.00% | fair | 2 | 10.53% |
| good/excellent | 18 | 100.00% | good/excellent | 7 | 36.84% |

| GROUP 6 | 19 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 10.53% | poor/not so good | 1 | 6.25% |
| fair | 1 | 5.26% | fair | 0 | 0.00% |
| good/excellent | 16 | 84.21% | good/excellent | 15 | 93.75% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 5.56% |
| fair | 3 | 15.00% | fair | 2 | 11.11% |
| good/excellent | 17 | 85.00% | good/excellent | 15 | 83.33% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 2 | 13.33% |
| fair | 1 | 8.33% | fair | 1 | 6.67% |
| good/excellent | 11 | 91.67% | good/excellent | 12 | 80.00% |

Question 5.3
How would you rate the walking distance to friends?

| ALL GROUPS | 187 | | GROUP 1 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 72 | 38.50% | poor/not so good | 12 | 66.67% |
| fair | 18 | 9.63% | fair | 1 | 5.56% |
| good/excellent | 97 | 51.87% | good/excellent | 5 | 27.78% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 18.75% | poor/not so good | 6 | 30.00% |
| fair | 4 | 25.00% | fair | 1 | 5.00% |
| good/excellent | 9 | 56.25% | good/excellent | 13 | 65.00% |

| GROUP 4 | 17 | | GROUP 5 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 6 | 35.29% | poor/not so good | 11 | 61.11% |
| fair | 0 | 0.00% | fair | 1 | 5.56% |
| good/excellent | 11 | 64.71% | good/excellent | 6 | 33.33% |

| GROUP 6 | 17 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 7 | 41.18% | poor/not so good | 7 | 41.18% |
| fair | 1 | 5.88% | fair | 2 | 11.76% |
| good/excellent | 9 | 52.94% | good/excellent | 8 | 47.06% |

| GROUP 8 | 20 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 20.00% | poor/not so good | 5 | 29.41% |
| fair | 3 | 15.00% | fair | 0 | 0.00% |
| good/excellent | 13 | 65.00% | good/excellent | 12 | 70.59% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 16.67% | poor/not so good | 9 | 60.00% |
| fair | 2 | 16.67% | fair | 3 | 20.00% |
| good/excellent | 8 | 66.67% | good/excellent | 3 | 20.00% |

Question 5.4
How would you rate the walking distance to doctors clinics
   and drug stores


ALL GROUPS          181               GROUP 1            18

poor/not so good     26    14.36%     poor/not so good   12   66.67%
fair                 16     8.84%     fair                1    5.56%
good/excellent      139    76.80%     good/excellent      5   27.78%


GROUP 2              16                GROUP 3            20

poor/not so good      3    18.75%     poor/not so good    6   30.00%
fair                  4    25.00%     fair                1    5.00%
good/excellent        9    56.25%     good/excellent     13   65.00%


GROUP 4              17                GROUP 5            18

poor/not so good      6    35.29%     poor/not so good   11   61.11%
fair                  0     0.00%     fair                1    5.56%
good/excellent       11    64.71%     good/excellent      6   33.33%


GROUP 6              17                GROUP 7            17

poor/not so good      7    41.18%     poor/not so good    7   41.18%
fair                  1     5.88%     fair                2   11.76%
good/excellent        9    52.94%     good/excellent      8   47.06%


GROUP 8              20                GROUP 9            17

poor/not so good      4    20.00%     poor/not so good    5   29.41%
fair                  3    15.00%     fair                0    0.00%
good/excellent       13    65.00%     good/excellent     12   70.59%


GROUP 10             12                GROUP 11           15

poor/not so good      2    16.67%     poor/not so good    9   60.00%
fair                  2    16.67%     fair                3   20.00%
good/excellent        8    66.67%     good/excellent      3   20.00%

Question 5.5
How would you rate the walking distance from home to schools?


| ALL GROUPS | 37 | | GROUP 1 | 5 | |
|---|---|---|---|---|---|
| poor/not so good | 8 | 21.62% | poor/not so good | 1 | 20.00% |
| fair | 2 | 5.41% | fair | 1 | 20.00% |
| good/excellent | 27 | 72.97% | good/excellent | 3 | 60.00% |


| GROUP 2 | 7 | | GROUP 3 | 3 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 33.33% |
| fair | 0 | 0.00% | fair | 1 | 33.33% |
| good/excellent | 7 | 100.00% | good/excellent | 1 | 33.33% |


| GROUP 4 | 4 | | GROUP 5 | 4 | |
|---|---|---|---|---|---|
| poor/not so good | 2 | 50.00% | poor/not so good | 3 | 75.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 2 | 50.00% | good/excellent | 1 | 25.00% |


| GROUP 6 | 2 | | GROUP 7 | 4 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 2 | 100.00% | good/excellent | 4 | 100.00% |


| GROUP 8 | 1 | | GROUP 9 | 2 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 1 | 50.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 1 | 100.00% | good/excellent | 1 | 50.00% |


| GROUP 10 | 5 | | GROUP 11 | 0 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 5 | 100.00% | good/excellent | 0 | 0.00% |

Question 5.6
How would you rate the walking distance to churches
  and community facilities?

| ALL GROUPS | 151 | | GROUP 1 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 18 | 11.92% | poor/not so good | 3 | 16.67% |
| fair | 7 | 4.64% | fair | 1 | 5.56% |
| good/excellent | 126 | 83.44% | good/excellent | 14 | 77.78% |

| GROUP 2 | 14 | | GROUP 3 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 2 | 13.33% |
| good/excellent | 14 | 100.00% | good/excellent | 13 | 86.67% |

| GROUP 4 | 15 | | GROUP 5 | 10 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 6 | 60.00% |
| fair | 0 | 0.00% | fair | 1 | 10.00% |
| good/excellent | 15 | 100.00% | good/excellent | 3 | 30.00% |

| GROUP 6 | 13 | | GROUP 7 | 14 | |
|---|---|---|---|---|---|
| poor/not so good | 4 | 30.77% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 1 | 7.14% |
| good/excellent | 9 | 69.23% | good/excellent | 13 | 92.86% |

| GROUP 8 | 19 | | GROUP 9 | 16 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 2 | 12.50% |
| fair | 0 | 0.00% | fair | 1 | 6.25% |
| good/excellent | 19 | 100.00% | good/excellent | 13 | 81.25% |

| GROUP 10 | 10 | | GROUP 11 | 7 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 3 | 42.86% |
| fair | 0 | 0.00% | fair | 1 | 14.29% |
| good/excellent | 10 | 100.00% | good/excellent | 3 | 42.86% |

Question 5.7
How would you rate the walking distance to public transit


| ALL GROUPS | 191 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| poor/not so good | 3 | 1.57% | poor/not so good | 0 | 0.00% |
| fair | 3 | 1.57% | fair | 0 | 0.00% |
| good/excellent | 185 | 96.86% | good/excellent | 19 | 100.00% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 1 | 5.00% |
| good/excellent | 16 | 100.00% | good/excellent | 19 | 95.00% |


| GROUP 4 | 18 | | GROUP 5 | 18 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 2 | 11.11% |
| fair | 0 | 0.00% | fair | 2 | 11.11% |
| good/excellent | 18 | 100.00% | good/excellent | 14 | 77.78% |


| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 19 | 100.00% | good/excellent | 17 | 100.00% |


| GROUP 8 | 20 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| poor/not so good | 0 | 0.00% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 20 | 100.00% | good/excellent | 17 | 100.00% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| poor/not so good | 1 | 8.33% | poor/not so good | 0 | 0.00% |
| fair | 0 | 0.00% | fair | 0 | 0.00% |
| good/excellent | 11 | 91.67% | good/excellent | 15 | 100.00% |

Question 6.1
Rate the importance of owning your home.

| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 57 | 29.53% | not/somewh. import | 1 | 5.26% |
| fairly important | 25 | 12.95% | fairly important | 1 | 5.26% |
| very/extrem. imp. | 111 | 57.51% | very/extrem. imp. | 17 | 89.47% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 4 | 25.00% | not/somewh. import | 8 | 40.00% |
| fairly important | 2 | 12.50% | fairly important | 5 | 25.00% |
| very/extrem. imp. | 10 | 62.50% | very/extrem. imp. | 7 | 35.00% |

| GROUP 4 | 20 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 1 | 5.56% | not/somewh. import | 1 | 5.00% |
| fairly important | 3 | 16.67% | fairly important | 3 | 15.00% |
| very/extrem. imp. | 16 | 88.89% | very/extrem. imp. | 16 | 80.00% |

| GROUP 6 | 18 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 6 | 33.33% | not/somewh. import | 4 | 23.53% |
| fairly important | 2 | 11.11% | fairly important | 2 | 11.76% |
| very/extrem. imp. | 10 | 55.56% | very/extrem. imp. | 11 | 64.71% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somewh. import | 11 | 55.00% | not/somewh. import | 8 | 44.44% |
| fairly important | 3 | 15.00% | fairly important | 4 | 22.22% |
| very/extrem. imp. | 6 | 30.00% | very/extrem. imp. | 6 | 33.33% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 3 | 25.00% | not/somewh. import | 6 | 40.00% |
| fairly important | 2 | 16.67% | fairly important | 1 | 6.67% |
| very/extrem. imp. | 7 | 58.33% | very/extrem. imp. | 8 | 53.33% |

Question 6.2
Rate the importance of having a sens of pride about your home?

| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 16 | 8.29% | not/somewh. import | 1 | 5.26% |
| fairly important | 33 | 17.10% | fairly important | 3 | 15.79% |
| very/extrem. imp. | 144 | 74.61% | very/extrem. imp. | 15 | 78.95% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 3 | 18.75% | not/somewh. import | 2 | 10.00% |
| fairly important | 4 | 25.00% | fairly important | 3 | 15.00% |
| very/extrem. imp. | 9 | 56.25% | very/extrem. imp. | 15 | 75.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 0 | 0.00% |
| fairly important | 4 | 22.22% | fairly important | 2 | 10.00% |
| very/extrem. imp. | 14 | 77.78% | very/extrem. imp. | 18 | 90.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 1 | 5.26% | not/somewh. import | 1 | 5.88% |
| fairly important | 1 | 5.26% | fairly important | 1 | 5.88% |
| very/extrem. imp. | 17 | 89.47% | very/extrem. imp. | 15 | 88.24% |

| GROUP 8 | 19 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somewh. import | 2 | 10.53% | not/somewh. import | 1 | 5.56% |
| fairly important | 2 | 10.53% | fairly important | 7 | 38.89% |
| very/extrem. imp. | 15 | 78.95% | very/extrem. imp. | 10 | 55.56% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 4 | 33.33% | not/somewh. import | 1 | 6.67% |
| fairly important | 2 | 16.67% | fairly important | 4 | 26.67% |
| very/extrem. imp. | 6 | 50.00% | very/extrem. imp. | 10 | 66.67% |

Question 6.3
Rate the importance that your home is an assest for investment


| ALL GROUPS | 184 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 55 | 29.89% | not/somewh. import | 4 | 21.05% |
| fairly important | 27 | 14.67% | fairly important | 1 | 5.26% |
| very/extrem. imp. | 102 | 55.43% | very/extrem. imp. | 14 | 73.68% |


| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 5 | 31.25% | not/somewh. import | 7 | 36.84% |
| fairly important | 2 | 12.50% | fairly important | 3 | 15.79% |
| very/extrem. imp. | 9 | 56.25% | very/extrem. imp. | 9 | 47.37% |


| GROUP 4 | 18 | | GROUP 5 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 8 | 44.44% | not/somewh. import | 5 | 26.32% |
| fairly important | 3 | 16.67% | fairly important | 4 | 21.05% |
| very/extrem. imp. | 7 | 38.89% | very/extrem. imp. | 10 | 52.63% |


| GROUP 6 | 16 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 3 | 18.75% | not/somewh. import | 4 | 23.53% |
| fairly important | 2 | 12.50% | fairly important | 4 | 23.53% |
| very/extrem. imp. | 11 | 68.75% | very/extrem. imp. | 9 | 52.94% |


| GROUP 8 | 16 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 5 | 31.25% | not/somewh. import | 8 | 47.06% |
| fairly important | 1 | 6.25% | fairly important | 2 | 11.76% |
| very/extrem. imp. | 10 | 62.50% | very/extrem. imp. | 7 | 41.18% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 3 | 25.00% | not/somewh. import | 3 | 20.00% |
| fairly important | 3 | 25.00% | fairly. important | 2 | 13.33% |
| very/extrem. imp. | 6 | 50.00% | very/extrem. imp. | 10 | 66.67% |

Question 6.4
Rate the importance of owning the land


| ALL GROUPS | 188 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 55 | 29.26% | not/somewh. import | 0 | 0.00% |
| fairly important | 16 | 8.51% | fairly important | 2 | 10.53% |
| very/extrem. imp. | 117 | 62.23% | very/extrem. imp. | 17 | 89.47% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 6 | 37.50% | not/somewh. import | 8 | 40.00% |
| fairly important | 1 | 6.25% | fairly important | 3 | 15.00% |
| very/extrem. imp. | 9 | 56.25% | very/extrem. imp. | 9 | 45.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 7 | 38.89% | not/somewh. import | 5 | 25.00% |
| fairly important | 1 | 5.56% | fairly important | 0 | 0.00% |
| very/extrem. imp. | 10 | 55.56% | very/extrem. imp. | 15 | 75.00% |


| GROUP 6 | 18 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 8 | 44.44% | not/somewh. import | 3 | 17.65% |
| fairly important | 1 | 5.56% | fairly important | 0 | 0.00% |
| very/extrem. imp. | 9 | 50.00% | very/extrem. imp. | 14 | 82.35% |


| GROUP 8 | 16 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 5 | 31.25% | not/somewh. import | 8 | 47.06% |
| fairly important | 2 | 12.50% | fairly important | 2 | 11.76% |
| very/extrem. imp. | 9 | 56.25% | very/extrem. imp. | 7 | 41.18% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 2 | 16.67% | not/somewh. import | 3 | 20.00% |
| fairly important | 3 | 25.00% | fairly important | 1 | 6.67% |
| very/extrem. imp. | 7 | 58.33% | very/extrem. imp. | 11 | 73.33% |

Question 6.5
Rate the importance of having a design or layout
   that suits your needs.


| ALL GROUPS | 191 | | | GROUP 1 | 19 | |
|---|---|---|---|---|---|---|
| not/somewh. import | 16 | 8.38% | | not/somewh. import | 0 | 0.00% |
| fairly important | 27 | 14.14% | | fairly important | 2 | 10.53% |
| very/extrem. impor | 148 | 77.49% | | very/extrem. impor | 17 | 89.47% |

| GROUP 2 | 16 | | | GROUP 3 | 20 | |
|---|---|---|---|---|---|---|
| not/somewh. import | 3 | 18.75% | | not/somewh. import | 1 | 5.00% |
| fairly important | 0 | 0.00% | | fairly important | 3 | 15.00% |
| very/extrem. impor | 13 | 81.25% | | very/extrem. impor | 16 | 80.00% |

| GROUP 4 | 18 | | | GROUP 5 | 18 | |
|---|---|---|---|---|---|---|
| not/somewh. import | 1 | 5.56% | | not/somewh. import | 0 | 0.00% |
| fairly important | 2 | 11.11% | | fairly important | 5 | 27.78% |
| very/extrem. impor | 15 | 83.33% | | very/extrem. impor | 13 | 72.22% |

| GROUP 6 | 19 | | | GROUP 7 | 17 | |
|---|---|---|---|---|---|---|
| not/somewh. import | 3 | 15.79% | | not/somewh. import | 2 | 11.76% |
| fairly important | 3 | 15.79% | | fairly important | 1 | 5.88% |
| very/extrem. impor | 13 | 68.42% | | very/extrem. impor | 14 | 82.35% |

| GROUP 8 | 20 | | | GROUP 9 | 17 | |
|---|---|---|---|---|---|---|
| not/somewh. import | 1 | 5.00% | | not/somewh. import | 2 | 11.76% |
| fairly important | 3 | 15.00% | | fairly important | 6 | 35.29% |
| very/extrem. impor | 16 | 80.00% | | very/extrem. impor | 9 | 52.94% |

| GROUP 10 | 12 | | | GROUP 11 | 15 | |
|---|---|---|---|---|---|---|
| not/somewh. import | 2 | 16.67% | | not/somewh. import | 1 | 6.67% |
| fairly important | 0 | 0.00% | | fairly important | 2 | 13.33% |
| very/extrem. impor | 10 | 83.33% | | very/extrem. impor | 12 | 80.00% |

Question 6.6
Rate the importance of having a low mortgage or low rent.

| ALL GROUPS | 182 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 20 | 10.99% | not/somewh. import | 1 | 5.26% |
| fairly important | 39 | 21.43% | fairly important | 4 | 21.05% |
| very/extrem. impor | 123 | 67.58% | very/extrem. impor | 14 | 73.68% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 1 | 6.25% | not/somewh. import | 2 | 10.00% |
| fairly important | 2 | 12.50% | fairly important | 5 | 25.00% |
| very/extrem. impor | 13 | 81.25% | very/extrem. impor | 13 | 65.00% |

| GROUP 4 | 17 | | GROUP 5 | 18 | |
|---|---|---|---|---|---|
| not/somewh. import | 2 | 11.76% | not/somewh. import | 1 | 5.56% |
| fairly important | 5 | 29.41% | fairly important | 3 | 16.67% |
| very/extrem. impor | 10 | 58.82% | very/extrem. impor | 14 | 77.78% |

| GROUP 6 | 18 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 4 | 22.22% | not/somewh. import | 0 | 0.00% |
| fairly important | 4 | 22.22% | fairly important | 3 | 17.65% |
| very/extrem. impor | 10 | 55.56% | very/extrem. impor | 14 | 82.35% |

| GROUP 8 | 17 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 2 | 11.76% | not/somewh. import | 2 | 11.76% |
| fairly important | 2 | 11.76% | fairly important | 7 | 41.18% |
| very/extrem. impor | 13 | 76.47% | very/extrem. impor | 8 | 47.06% |

| GROUP 10 | 8 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 2 | 25.00% | not/somewh. import | 3 | 20.00% |
| fairly important | 3 | 37.50% | fairly important | 1 | 6.67% |
| very/extrem. impor | 3 | 37.50% | very/extrem. impor | 11 | 73.33% |

Question 6.7
Rate the importance of inexpensive operating costs


ALL GROUPS          188          GROUP 1             19

not/somewh. import  10    5.32%   not/somewh. import   0    0.00%
fairly important    43   22.87%   fairly important     4   21.05%
very/extrem. impor 135   71.81%   very/extrem. impor  15   78.95%


GROUP 2              16          GROUP 3             19

not/somewh. import   2   12.50%   not/somewh. import   1    5.26%
fairly important     4   25.00%   fairly important     4   21.05%
very/extrem. impor  10   62.50%   very/extrem. impor  14   73.68%


GROUP 4              18          GROUP 5             19

not/somewh. import   0    0.00%   not/somewh. import   2   10.53%
fairly important     6   33.33%   fairly important     2   10.53%
very/extrem. impor  12   66.67%   very/extrem. impor  15   78.95%


GROUP 6              19          GROUP 7             17

not/somewh. import   1    5.26%   not/somewh. import   0    0.00%
fairly important     4   21.05%   fairly important     3   17.65%
very/extrem. impor  14   73.68%   very/extrem. impor  14   82.35%


GROUP 8              18          GROUP 9             16

not/somewh. import   1    5.56%   not/somewh. import   1    6.25%
fairly important     2   11.11%   fairly important     7   43.75%
very/extrem. impor  15   83.33%   very/extrem. impor   8   50.00%


GROUP 10             12          GROUP 11            15

not/somewh. import   2   16.67%   not/somewh. import   0    0.00%
fairly important     4   33.33%   fairly important     3   20.00%
very/extrem. impor   6   50.00%   very/extrem. impor  12   80.00%

Question 6.8
Rate the importance of easy upkeep and maintenance


| ALL GROUPS | 192 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 24 | 12.50% | not/somewh. import | 0 | 0.00% |
| fairly important | 34 | 17.71% | fairly important | 5 | 26.32% |
| very/extrem. impor | 134 | 69.79% | very/extrem. impor | 14 | 73.68% |

| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 5 | 31.25% | not/somewh. import | 6 | 31.58% |
| fairly important | 2 | 12.50% | fairly important | 3 | 15.79% |
| very/extrem. impor | 9 | 56.25% | very/extrem. impor | 10 | 52.63% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 3 | 16.67% | not/somewh. import | 1 | 5.00% |
| fairly important | 2 | 11.11% | fairly important | 4 | 20.00% |
| very/extrem. impor | 13 | 72.22% | very/extrem. impor | 15 | 75.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 1 | 5.26% | not/somewh. import | 1 | 5.88% |
| fairly important | 5 | 26.32% | fairly important | 4 | 23.53% |
| very/extrem. impor | 13 | 68.42% | very/extrem. impor | 12 | 70.59% |

| GROUP 8 | 19 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somewh. import | 1 | 5.26% | not/somewh. import | 2 | 11.11% |
| fairly important | 1 | 5.26% | fairly important | 4 | 22.22% |
| very/extrem. impor | 17 | 89.47% | very/extrem. impor | 12 | 66.67% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 4 | 33.33% | not/somewh. import | 0 | 0.00% |
| fairly important | 2 | 16.67% | fairly important | 2 | 13.33% |
| very/extrem. impor | 6 | 50.00% | very/extrem. impor | 13 | 86.67% |

Question 6.9
Rate the importance of privacy in the home.


ALL GROUPS              192                 GROUP 1              19

not/somewh. import    9     4.69%          not/somewh. import    0     0.00%
fairly important     24    12.50%          fairly important      2    10.53%
very/extrem. impor  159    82.81%          very/extrem. impor   17    89.47%


GROUP 2               15                    GROUP 3              20

not/somewh. import    2    13.33%          not/somewh. import    1     5.00%
fairly important      6    40.00%          fairly important      1     5.00%
very/extrem. impor    7    46.67%          very/extrem. impor   18    90.00%


GROUP 4               18                    GROUP 5              20

not/somewh. import    4    22.22%          not/somewh. import    0     0.00%
fairly important      3    16.67%          fairly important      1     5.00%
very/extrem. impor   11    61.11%          very/extrem. impor   19    95.00%


GROUP 6               19                    GROUP 7              17

not/somewh. import    1     5.26%          not/somewh. import    0     0.00%
fairly important      3    15.79%          fairly important      0     0.00%
very/extrem. impor   15    78.95%          very/extrem. impor   17   100.00%


GROUP 8               20                    GROUP 9              17

not/somewh. import    0     0.00%          not/somewh. import    1     5.88%
fairly important      4    20.00%          fairly important      3    17.65%
very/extrem. impor   16    80.00%          very/extrem. impor   13    76.47%


GROUP 10              12                    GROUP 11             15

not/somewh. import    0     0.00%          not/somewh. import    0     0.00%
fairly important      1     8.33%          fairly important      0     0.00%
very/extrem. impor   11    91.67%          very/extrem. impor   15   100.00%

Question 6.10
Rate the importance of each person having a bedroom space.

| ALL GROUPS | 172 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 15 | 8.72% | not/somewh. import | 1 | 5.26% |
| fairly important | 19 | 11.05% | fairly important | 3 | 15.79% |
| very/extrem. impor | 138 | 80.23% | very/extrem. impor | 15 | 78.95% |

| GROUP 2 | 15 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 6 | 40.00% | not/somewh. import | 2 | 10.00% |
| fairly important | 1 | 6.67% | fairly important | 3 | 15.00% |
| very/extrem. impor | 8 | 53.33% | very/extrem. impor | 15 | 75.00% |

| GROUP 4 | 14 | | GROUP 5 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 1 | 7.14% | not/somewh. import | 0 | 0.00% |
| fairly important | 1 | 7.14% | fairly important | 1 | 5.26% |
| very/extrem. impor | 12 | 85.71% | very/extrem. impor | 18 | 94.74% |

| GROUP 6 | 15 | | GROUP 7 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 2 | 13.33% | not/somewh. import | 1 | 6.67% |
| fairly important | 2 | 13.33% | fairly important | 1 | 6.67% |
| very/extrem. impor | 11 | 73.33% | very/extrem. impor | 13 | 86.67% |

| GROUP 8 | 15 | | GROUP 9 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 2 | 13.33% | not/somewh. import | 0 | 0.00% |
| fairly important | 1 | 6.67% | fairly important | 3 | 20.00% |
| very/extrem. impor | 12 | 80.00% | very/extrem. impor | 12 | 80.00% |

| GROUP 10 | 11 | | GROUP 11 | 14 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 0 | 0.00% |
| fairly important | 3 | 27.27% | fairly important | 0 | 0.00% |
| very/extrem. impor | 8 | 72.73% | very/extrem. impor | 14 | 100.00% |

Question 6.11
Rate the importance of having a spare bedroom


| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 63 | 32.64% | not/somewh. import | 4 | 21.05% |
| fairly important | 47 | 24.35% | fairly important | 4 | 21.05% |
| very/extrem. impor | 83 | 43.01% | very/extrem. impor | 11 | 57.89% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 7 | 43.75% | not/somewh. import | 10 | 50.00% |
| fairly important | 4 | 25.00% | fairly important | 3 | 15.00% |
| very/extrem. impor | 5 | 31.25% | very/extrem. impor | 7 | 35.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 4 | 22.22% | not/somewh. import | 0 | 0.00% |
| fairly important | 7 | 38.89% | fairly important | 6 | 30.00% |
| very/extrem. impor | 7 | 38.89% | very/extrem. impor | 14 | 70.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 9 | 47.37% | not/somewh. import | 5 | 29.41% |
| fairly important | 3 | 15.79% | fairly important | 3 | 17.65% |
| very/extrem. impor | 7 | 36.84% | very/extrem. impor | 9 | 52.94% |

| GROUP 8 | 19 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somewh. import | 9 | 47.37% | not/somewh. import | 6 | 33.33% |
| fairly important | 8 | 42.11% | fairly important | 5 | 27.78% |
| very/extrem. impor | 2 | 10.53% | very/extrem. impor | 7 | 38.89% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 4 | 33.33% | not/somewh. import | 5 | 33.33% |
| fairly important | 1 | 8.33% | fairly important | 3 | 20.00% |
| very/extrem. impor | 7 | 58.33% | very/extrem. impor | 7 | 46.67% |

Question 6.12
Rate the importance of having sunlight in the home.

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 5 | 2.58% | not/somewh. import | 0 | 0.00% |
| fairly important | 25 | 12.89% | fairly important | 1 | 5.26% |
| very/extrem. impor | 164 | 84.54% | very/extrem. impor | 18 | 94.74% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 0 | 0.00% |
| fairly important | 3 | 18.75% | fairly important | 3 | 15.00% |
| very/extrem. impor | 13 | 81.25% | very/extrem. impor | 17 | 85.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 0 | 0.00% |
| fairly important | 1 | 5.56% | fairly important | 1 | 5.00% |
| very/extrem. impor | 17 | 94.44% | very/extrem. impor | 19 | 95.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 4 | 21.05% | not/somewh. import | 0 | 0.00% |
| fairly important | 2 | 10.53% | fairly important | 2 | 11.76% |
| very/extrem. impor | 13 | 68.42% | very/extrem. impor | 15 | 88.24% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 1 | 5.56% |
| fairly important | 3 | 15.00% | fairly important | 5 | 27.78% |
| very/extrem. impor | 17 | 85.00% | very/extrem. impor | 12 | 66.67% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 0 | 0.00% |
| fairly important | 2 | 16.67% | fairly important | 2 | 13.33% |
| very/extrem. impor | 10 | 83.33% | very/extrem. impor | 13 | 86.67% |

Question 6.13
Rate the importance of having fresh air in the home


| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 2 | 1.04% | not/somewh. import | 0 | 0.00% |
| fairly important | 17 | 8.81% | fairly important | 0 | 0.00% |
| very/extrem. impor | 174 | 90.16% | very/extrem. impor | 19 | 100.00% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 1 | 5.00% |
| fairly important | 2 | 12.50% | fairly important | 1 | 5.00% |
| very/extrem. impor | 14 | 87.50% | very/extrem. impor | 18 | 90.00% |

| GROUP 4 | 17 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 0 | 0.00% |
| fairly important | 1 | 5.88% | fairly important | 0 | 0.00% |
| very/extrem. impor | 16 | 94.12% | very/extrem. impor | 20 | 100.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 0 | 0.00% |
| fairly important | 1 | 5.26% | fairly important | 2 | 11.76% |
| very/extrem. impor | 18 | 94.74% | very/extrem. impor | 15 | 88.24% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 1 | 5.56% |
| fairly important | 3 | 15.00% | fairly important | 3 | 16.67% |
| very/extrem. impor | 17 | 85.00% | very/extrem. impor | 14 | 77.78% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 0 | 0.00% |
| fairly important | 3 | 25.00% | fairly important | 1 | 6.67% |
| very/extrem. impor | 9 | 75.00% | very/extrem. impor | 14 | 93.33% |

Question 6.14
Rate the importance of having a direct ground level
  access from outside


ALL GROUPS            191              GROUP 1              19

not/somewh. import  65     34.03%      not/somewh. import   4     21.05%
fairly important    32     16.75%      fairly important     3     15.79%
very/extrem. impor  94     49.21%      very/extrem. impor  12     63.16%


GROUP 2               16              GROUP 3              20

not/somewh. import   5     31.25%      not/somewh. import   9     45.00%
fairly important     2     12.50%      fairly important     1      5.00%
very/extrem. impor   9     56.25%      very/extrem. impor  10     50.00%


GROUP 4               18              GROUP 5              20

not/somewh. import   8     44.44%      not/somewh. import   3     15.00%
fairly important     4     22.22%      fairly important     4     20.00%
very/extrem. impor   6     33.33%      very/extrem. impor  13     65.00%


GROUP 6               18              GROUP 7              17

not/somewh. import   6     33.33%      not/somewh. import   3     17.65%
fairly important     5     27.78%      fairly important     3     17.65%
very/extrem. impor   7     38.89%      very/extrem. impor  11     64.71%


GROUP 8               20              GROUP 9              17

not/somewh. import   9     45.00%      not/somewh. import  10     58.82%
fairly important     4     20.00%      fairly important     1      5.88%
very/extrem. impor   7     35.00%      very/extrem. impor   6     35.29%


GROUP 10              11              GROUP 11             15

not/somewh. import   3     27.27%      not/somewh. import   5     33.33%
fairly important     2     18.18%      fairly important     3     20.00%
very/extrem. impor   6     54.55%      very/extrem. impor   7     46.67%

Question 6.15
Rate the importance of having open space around the home.


| ALL GROUPS | 191 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 32 | 16.75% | not/somewh. import | 1 | 5.26% |
| fairly important | 41 | 21.47% | fairly important | 2 | 10.53% |
| very/extrem. impor | 118 | 61.78% | very/extrem. impor | 16 | 84.21% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 1 | 6.25% | not/somewh. import | 4 | 20.00% |
| fairly important | 5 | 31.25% | fairly important | 3 | 15.00% |
| very/extrem. impor | 10 | 62.50% | very/extrem. impor | 13 | 65.00% |

| GROUP 4 | 18 | | GROUP 5 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 5 | 27.78% | not/somewh. import | 0 | 0.00% |
| fairly important | 3 | 16.67% | fairly important | 5 | 26.32% |
| very/extrem. impor | 10 | 55.56% | very/extrem. impor | 14 | 73.68% |

| GROUP 6 | 18 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 5 | 27.78% | not/somewh. import | 2 | 11.76% |
| fairly important | 4 | 22.22% | fairly important | 3 | 17.65% |
| very/extrem. impor | 9 | 50.00% | very/extrem. impor | 12 | 70.59% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somewh. import | 6 | 30.00% | not/somewh. import | 4 | 22.22% |
| fairly important | 4 | 20.00% | fairly important | 4 | 22.22% |
| very/extrem. impor | 10 | 50.00% | very/extrem. impor | 10 | 55.56% |

| GROUP 10 | 11 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 1 | 9.09% | not/somewh. import | 3 | 20.00% |
| fairly important | 4 | 36.36% | fairly important | 4 | 26.67% |
| very/extrem. impor | 6 | 54.55% | very/extrem. impor | 8 | 53.33% |

Question 6.16
Rate the importance of having an attractive outside
  appearance.

| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 20 | 10.36% | not/somew. import | 0 | 0.00% |
| fairly important | 55 | 28.50% | fairly important | 4 | 21.05% |
| very/extrem. impor | 118 | 61.14% | very/extrem. impor | 15 | 78.95% |

| GROUP 2 | 15 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 2 | 13.33% | not/somew. import | 2 | 10.00% |
| fairly important | 6 | 40.00% | fairly important | 5 | 25.00% |
| very/extrem. impor | 7 | 46.67% | very/extrem. impor | 13 | 65.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 2 | 11.11% | not/somew. import | 1 | 5.00% |
| fairly important | 8 | 44.44% | fairly important | 3 | 15.00% |
| very/extrem. impor | 8 | 44.44% | very/extrem. impor | 16 | 80.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 2 | 10.53% | not/somew. import | 0 | 0.00% |
| fairly important | 7 | 36.84% | fairly important | 4 | 23.53% |
| very/extrem. impor | 10 | 52.63% | very/extrem. impor | 13 | 76.47% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 4 | 20.00% | not/somew. import | 4 | 22.22% |
| fairly important | 6 | 30.00% | fairly important | 5 | 27.78% |
| very/extrem. impor | 10 | 50.00% | very/extrem. impor | 9 | 50.00% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 8.33% | not/somew. import | 2 | 13.33% |
| fairly important | 4 | 33.33% | fairly important | 3 | 20.00% |
| very/extrem. impor | 7 | 58.33% | very/extrem. impor | 10 | 66.67% |

Question 6.17
Rate the importance of having an attractive view


ALL GROUPS            194            GROUP 1               19

not/somew. import     17     8.76%   not/somew. import     1     5.26%
fairly important      72    37.11%   fairly important      6    31.58%
very/extrem. impor   105    54.12%   very/extrem. impor   12    63.16%


GROUP 2               16            GROUP 3               20

not/somew. import      3    18.75%   not/somew. import     4    20.00%
fairly important       5    31.25%   fairly important     10    50.00%
very/extrem. impor     8    50.00%   very/extrem. impor    6    30.00%


GROUP 4               18            GROUP 5               19

not/somew. import      1     5.56%   not/somew. import     0     0.00%
fairly important      12    66.67%   fairly important      3    15.00%
very/extrem. impor     5    27.78%   very/extrem. impor   16    80.00%


GROUP 6               19            GROUP 7               17

not/somew. import      0     0.00%   not/somew. import     1     5.88%
fairly important      10    52.63%   fairly important      3    17.65%
very/extrem. impor     9    47.37%   very/extrem. impor   13    76.47%


GROUP 8               20            GROUP 9               18

not/somew. import      3    15.00%   not/somew. import     3    16.67%
fairly important       6    30.00%   fairly important      6    33.33%
very/extrem. impor    11    55.00%   very/extrem. impor    9    50.00%


GROUP 10              12            GROUP 11              15

not/somew. import      0     0.00%   not/somew. import     1     6.67%
fairly important       7    58.33%   fairly important      4    26.67%
very/extrem. impor     5    41.67%   very/extrem. impor   10    66.67%

Question 7.1
Rate the importance of walking distance to work
  in your ideal neighbourhood


ALL GROUPS            154          GROUP 1              13

not/somew. import     59   38.31%  not/somew. import     7   53.85%
fairly important      33   21.43%  fairly important      2   15.38%
very/extrem. impor    62   40.26%  very/extrem. impor    4   30.77%


GROUP 2                16          GROUP 3              19

not/somew. import      5   31.25%  not/somew. import     5   26.32%
fairly important       2   12.50%  fairly important      6   31.58%
very/extrem. impor     9   56.25%  very/extrem. impor    8   42.11%


GROUP 4                16          GROUP 5              16

not/somew. import      5   31.25%  not/somew. import     5   31.25%
fairly important       3   18.75%  fairly important      2   12.50%
very/extrem. impor     8   50.00%  very/extrem. impor    9   56.25%


GROUP 6                10          GROUP 7              12

not/somew. import      4   40.00%  not/somew. import     7   58.33%
fairly important       3   30.00%  fairly important      3   25.00%
very/extrem. impor     3   30.00%  very/extrem. impor    2   16.67%


GROUP 8                18          GROUP 9              10

not/somew. import      8   44.44%  not/somew. import     3   30.00%
fairly important       5   27.78%  fairly important      4   40.00%
very/extrem. impor     5   27.78%  very/extrem. impor    3   30.00%


GROUP 10               10          GROUP 11             14

not/somew. import      3   30.00%  not/somew. import     7   50.00%
fairly important       1   10.00%  fairly important      2   14.29%
very/extrem. impor     6   60.00%  very/extrem. impor    5   35.71%

Question 7.2
Rate the importance of being walking distanc to a grocery store
  in your ideal neighbourhood


ALL GROUPS           192              GROUP 1              19

not/somew. import    40     20.83%    not/somew. import    3     15.79%
fairly important     45     23.44%    fairly important     7     36.84%
very/extrem. impor   107    55.73%    very/extrem. impor   9     47.37%


GROUP 2              16               GROUP 3              20

not/somew. import    4      25.00%    not/somew. import    6     30.00%
fairly important     3      18.75%    fairly important     5     25.00%
very/extrem. impor   9      56.25%    very/extrem. impor   9     45.00%


GROUP 4              18               GROUP 5              19

not/somew. import    2      11.11%    not/somew. import    6     31.58%
fairly important     6      33.33%    fairly important     4     21.05%
very/extrem. impor   10     55.56%    very/extrem. impor   9     47.37%


GROUP 6              19               GROUP 7              17

not/somew. import    4      21.05%    not/somew. import    5     29.41%
fairly important     3      15.79%    fairly important     3     17.65%
very/extrem. impor   12     63.16%    very/extrem. impor   9     52.94%


GROUP 8              20               GROUP 9              17

not/somew. import    1      5.00%     not/somew. import    2     11.76%
fairly important     7      35.00%    fairly important     4     23.53%
very/extrem. impor   12     60.00%    very/extrem. impor   11    64.71%


GROUP 10             12               GROUP 11             15

not/somew. import    2      16.67%    not/somew. import    5     33.33%
fairly important     3      25.00%    fairly important     0     0.00%
very/extrem. impor   7      58.33%    . very/extrem. impor 10    66.67%

Question 7.3
Rate the importance of being walking distance from a
  convenience store in your ideal neighbourhood


ALL GROUPS              190            GROUP 1              19

not/somew. import    32    16.84%      not/somew. import    1     5.26%
fairly important     43    22.63%      fairly important     5    26.32%
very/extrem. impor  115    60.53%      very/extrem. impor  13    68.42%


GROUP 2                  15            GROUP 3              20

not/somew. import     4    26.67%      not/somew. import    2    10.00%
fairly important      3    20.00%      fairly important     4    20.00%
very/extrem. impor    8    53.33%      very/extrem. impor  14    70.00%


GROUP 4                  17            GROUP 5              19

not/somew. import     5    29.41%      not/somew. import    5    26.32%
fairly important      1     5.88%      fairly important     2    10.53%
very/extrem. impor   11    64.71%      very/extrem. impor  12    63.16%


GROUP 6                  19            GROUP 7              17

not/somew. import     1     5.26%      not/somew. import    5    29.41%
fairly important      7    36.84%      fairly important     4    23.53%
very/extrem. impor   11    57.89%      very/extrem. impor   8    47.06%


GROUP 8                  20            GROUP 9              17

not/somew. import     1     5.00%      not/somew. import    3    17.65%
fairly important      6    30.00%      fairly important     5    29.41%
very/extrem. impor   13    65.00%      very/extrem. impor   9    52.94%


GROUP 10                 12            GROUP 11             15

not/somew. import     1     8.33%      not/somew. import    4    26.67%
fairly important      4    33.33%      fairly important     2    13.33%
very/extrem. impor    7    58.33%      very/extrem. impor   9    60.00%

Question 7.4
Rate the importance of having friends and relatives within
  walking distance in your ideal neighbourhood.


ALL GROUPS            191              GROUP 1               18

not/somew. import     85   44.50%      not/somew. import    13   72.22%
fairly important      59   30.89%      fairly important      2   11.11%
very/extrem. impor    47   24.61%      very/extrem. impor    3   16.67%


GROUP 2                16              GROUP 3               20

not/somew. import      8   50.00%      not/somew. import    11   55.00%
fairly important       5   31.25%      fairly important      5   25.00%
very/extrem. impor     3   18.75%      very/extrem. impor    4   20.00%


GROUP 4                18              GROUP 5               20

not/somew. import      8   44.44%      not/somew. import     4   20.00%
fairly important       6   33.33%      fairly important      8   40.00%
very/extrem. impor     4   22.22%      very/extrem. impor    8   40.00%


GROUP 6                18              GROUP 7               17

not/somew. import      7   38.89%      not/somew. import     7   41.18%
fairly important       7   38.89%      fairly important      7   41.18%
very/extrem. impor     4   22.22%      very/extrem. impor    3   17.65%


GROUP 8                20              GROUP 9               17

not/somew. import      5   25.00%      not/somew. import     7   41.18%
fairly important       8   40.00%      fairly important      6   35.29%
very/extrem. impor     7   35.00%      very/extrem. impor    4   23.53%


GROUP 10               12              GROUP 11              15

not/somew. import      7   58.33%      not/somew. import     8   53.33%
fairly important       1    8.33%      fairly important      4   26.67%
very/extrem. impor     4   33.33%      very/extrem. impor    3   20.00%

Question 7.5
Rate the importance of being a walking distance to doctors offices
   in your ideal neighbourhood.


ALL GROUPS            192              GROUP 1               19

not/somew. import     78    40.63%     not/somew. import     13    68.42%
fairly important      48    25.00%     fairly important       2    10.53%
very/extrem. impor    66    34.38%     very/extrem. impor     4    21.05%


GROUP 2                16              GROUP 3               20

not/somew. import      7    43.75%     not/somew. import      8    40.00%
fairly important       4    25.00%     fairly important       8    40.00%
very/extrem. impor     5    31.25%     very/extrem. impor     4    20.00%


GROUP 4                18              GROUP 5               20

not/somew. import     10    55.56%     not/somew. import      6    30.00%
fairly important       5    27.78%     fairly important       6    30.00%
very/extrem. impor     3    16.67%     very/extrem. impor     8    40.00%


GROUP 6                18              GROUP 7               17

not/somew. import      5    27.78%     not/somew. import      8    47.06%
fairly important       4    22.22%     fairly important       1     5.88%
very/extrem. impor     9    50.00%     very/extrem. impor     8    47.06%


GROUP 8                20              GROUP 9               17

not/somew. import      5    25.00%     not/somew. import      6    33.33%
fairly important      10    50.00%     fairly important       2    11.11%
very/extrem. impor     5    25.00%     very/extrem. impor     9    50.00%


GROUP 10               12              GROUP 11              15

not/somew. import      4    33.33%     not/somew. import      6    40.00%
fairly important       4    33.33%     fairly important       2    13.33%
very/extrem. impor     4    33.33%     very/extrem. impor     7    46.67%

Question 7.6
Rate the importance of being a walking distance from public
  transportation in your ideal neighbourhood

ALL GROUPS            192          GROUP 1              19

not/somew. import     36   18.75%   not/somew. import     4   21.05%
fairly important      30   15.63%   fairly important      2   10.53%
very/extrem. impor   126   65.63%   very/extrem. impor   13   68.42%


GROUP 2                16          GROUP 3              20

not/somew. import      3   18.75%   not/somew. import     3   15.00%
fairly important       2   12.50%   fairly important      3   15.00%
very/extrem. impor    11   68.75%   very/extrem. impor   14   70.00%


GROUP 4                18          GROUP 5              20

not/somew. import      4   22.22%   not/somew. import     2   10.00%
fairly important       2   11.11%   fairly important      4   20.00%
very/extrem. impor    12   66.67%   very/extrem. impor   14   70.00%


GROUP 6                18          GROUP 7              17

not/somew. import      4   22.22%   not/somew. import     7   41.18%
fairly important       2   11.11%   fairly important      3   17.65%
very/extrem. impor    12   66.67%   very/extrem. impor    7   41.18%


GROUP 8                20          GROUP 9              17

not/somew. import      1    5.00%   not/somew. import     3   17.65%
fairly important       6   30.00%   fairly important      3   17.65%
very/extrem. impor    13   65.00%   very/extrem. impor   11   64.71%


GROUP 10               12          GROUP 11             15

not/somew. import      1    8.33%   not/somew. import     4   26.67%
fairly important       1    8.33%   fairly important      2   13.33%
very/extrem. impor    10   83.33%   very/extrem. impor    9   60.00%

Question 7.7
Rate the importance of being walking distance to schools.
  appearance.


ALL GROUPS            43            GROUP 1               6

not/somew. import     10    23.26%    not/somew. import     1    16.67%
fairly important       1     2.33%    fairly important      0     0.00%
very/extrem. impor    32    74.42%    very/extrem. impor    5    83.33%


GROUP 2                9            GROUP 3               3

not/somew. import      1    11.11%    not/somew. import     1    33.33%
fairly important       0     0.00%    fairly important      1    33.33%
very/extrem. impor     8    88.89%    very/extrem. impor    1    33.33%


GROUP 4                3            GROUP 5               7

not/somew. import      0     0.00%    not/somew. import     4    57.14%
fairly important       0     0.00%    fairly important      0     0.00%
very/extrem. impor     3   100.00%    very/extrem. impor    3    42.86%


GROUP 6                1            GROUP 7               4

not/somew. import      0     0.00%    not/somew. import     1    25.00%
fairly important       0     0.00%    fairly important      0     0.00%
very/extrem. impor     1   100.00%    very/extrem. impor    3    75.00%


GROUP 8                2            GROUP 9               2

not/somew. import      0     0.00%    not/somew. import     1    50.00%
fairly important       0     0.00%    fairly important      0     0.00%
very/extrem. impor     2   100.00%    very/extrem. impor    1    50.00%


GROUP 10               5            GROUP 11              1

not/somew. import      1    20.00%    not/somew. import     0     0.00%
fairly important       0     0.00%    fairly important      0     0.00%
very/extrem. impor     4    80.00%    very/extrem. impor    1   100.00%

Question 7.8
Rate the importance of being a walking distance to churches
  and community facilities

| ALL GROUPS | 178 | | GROUP 1 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 77 | 43.26% | not/somew. import | 7 | 38.89% |
| fairly important | 50 | 28.09% | fairly important | 4 | 22.22% |
| very/extrem. impor | 51 | 28.65% | very/extrem. impor | 7 | 38.89% |

| GROUP 2 | 16 | | GROUP 3 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 9 | 56.25% | not/somew. import | 7 | 41.18% |
| fairly important | 3 | 18.75% | fairly important | 6 | 35.29% |
| very/extrem. impor | 4 | 25.00% | very/extrem. impor | 4 | 23.53% |

| GROUP 4 | 16 | | GROUP 5 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 7 | 43.75% | not/somew. import | 6 | 35.29% |
| fairly important | 7 | 43.75% | fairly important | 4 | 23.53% |
| very/extrem. impor | 2 | 12.50% | very/extrem. impor | 7 | 41.18% |

| GROUP 6 | 16 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 8 | 50.00% | not/somew. import | 8 | 47.06% |
| fairly important | 3 | 18.75% | fairly important | 4 | 23.53% |
| very/extrem. impor | 5 | 31.25% | very/extrem. impor | 5 | 29.41% |

| GROUP 8 | 20 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 5 | 25.00% | not/somew. import | 7 | 41.18% |
| fairly important | 9 | 45.00% | fairly important | 6 | 35.29% |
| very/extrem. impor | 6 | 30.00% | very/extrem. impor | 4 | 23.53% |

| GROUP 10 | 11 | | GROUP 11 | 13 | |
|---|---|---|---|---|---|
| not/somew. import | 6 | 54.55% | not/somew. import | 7 | 53.85% |
| fairly important | 0 | 0.00% | fairly important | 4 | 30.77% |
| very/extrem. impor | 5 | 45.45% | very/extrem. impor | 2 | 15.38% |

Question 7.9
Rate the importance of open space and parks nearby

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 13 | 6.70% | not/somew. import | 1 | 5.26% |
| fairly important | 40 | 20.62% | fairly important | 4 | 21.05% |
| very/extrem. impor | 141 | 72.68% | very/extrem. impor | 14 | 73.68% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 6.25% | not/somew. import | 4 | 20.00% |
| fairly important | 6 | 37.50% | fairly important | 1 | 5.00% |
| very/extrem. impor | 9 | 56.25% | very/extrem. impor | 15 | 75.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 5.56% | not/somew. import | 0 | 0.00% |
| fairly important | 3 | 16.67% | fairly important | 4 | 20.00% |
| very/extrem. impor | 14 | 77.78% | very/extrem. impor | 16 | 80.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 5.26% | not/somew. import | 1 | 5.88% |
| fairly important | 6 | 31.58% | fairly important | 4 | 23.53% |
| very/extrem. impor | 12 | 63.16% | very/extrem. impor | 12 | 70.59% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 2 | 11.11% |
| fairly important | 1 | 5.00% | fairly important | 6 | 33.33% |
| very/extrem. impor | 19 | 95.00% | very/extrem. impor | 10 | 55.56% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 2 | 13.33% |
| fairly important | 2 | 16.67% | fairly important | 3 | 20.00% |
| very/extrem. impor | 10 | 83.33% | very/extrem. impor | 10 | 66.67% |

Question 7.10
Rate the importance of having outdoor playgrounds for children


ALL GROUPS          133              GROUP 1             1

not/somew. import    17    12.78%     not/somew. import    0     0.00%
fairly important     20    15.04%     fairly important     0     0.00%
very/extrem. impor   96    72.18%     very/extrem. impor    1     5.88%


GROUP 2              15              GROUP 3             16

not/somew. import     2    13.33%     not/somew. import    3    18.75%
fairly important      3    20.00%     fairly important     2    12.50%
very/extrem. impor   10    66.67%     very/extrem. impor   11    68.75%


GROUP 4              13              GROUP 5             5

not/somew. import     4    30.77%     not/somew. import    0     0.00%
fairly important      1     7.69%     fairly important     0     0.00%
very/extrem. impor    8    61.54%     very/extrem. impor    5   100.00%


GROUP 6              12              GROUP 7             13

not/somew. import     2    16.67%     not/somew. import    4    30.77%
fairly important      1     8.33%     fairly important     3    23.08%
very/extrem. impor    9    75.00%     very/extrem. impor    6    46.15%


GROUP 8              15              GROUP 9             13

not/somew. import     0     0.00%     not/somew. import    1     7.69%
fairly important      1     6.67%     fairly important     5    38.46%
very/extrem. impor   14    93.33%     very/extrem. impor    7    53.85%


GROUP 10             10              GROUP 11            13

not/somew. import     0     0.00%     not/somew. import    1     7.69%
fairly important      1    10.00%     fairly important     3    23.08%
very/extrem. impor    9    90.00%     very/extrem. impor    9    69.23%

Question 7.11
Rate the importance of well-maintained streets


| ALL GROUPS | 192 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 9 | 4.69% | not/somew. import | 0 | 0.00% |
| fairly important | 39 | 20.31% | fairly important | 1 | 5.26% |
| very/extrem. impor | 144 | 75.00% | very/extrem. impor | 18 | 94.74% |


| GROUP 2 | 15 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 6.67% | not/somew. import | 2 | 10.00% |
| fairly important | 6 | 40.00% | fairly important | 6 | 30.00% |
| very/extrem. impor | 8 | 53.33% | very/extrem. impor | 12 | 60.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 4 | 22.22% | fairly important | 2 | 10.00% |
| very/extrem. impor | 14 | 77.78% | very/extrem. impor | 18 | 90.00% |


| GROUP 6 | 19 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 1 | 6.25% |
| fairly important | 4 | 21.05% | fairly important | 4 | 25.00% |
| very/extrem. impor | 15 | 78.95% | very/extrem. impor | 11 | 68.75% |


| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 5.00% | not/somew. import | 2 | 11.11% |
| fairly important | 5 | 25.00% | fairly important | 2 | 11.11% |
| very/extrem. impor | 14 | 70.00% | very/extrem. impor | 14 | 77.78% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 8.33% | not/somew. import | 1 | 6.67% |
| fairly important | 3 | 25.00% | fairly important | 2 | 13.33% |
| very/extrem. impor | 8 | 66.67% | very/extrem. impor | 12 | 80.00% |

Question 7.12
Rate the importance of safety from traffic


| ALL GROUPS | 191 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 5 | 2.62% | not/somew. import | 0 | 0.00% |
| fairly important | 29 | 15.18% | fairly important | 1 | 5.26% |
| very/extrem. impor | 157 | 82.20% | very/extrem. impor | 18 | 94.74% |

| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 6.25% | not/somew. import | 1 | 5.26% |
| fairly important | 3 | 18.75% | fairly important | 4 | 21.05% |
| very/extrem. impor | 12 | 75.00% | very/extrem. impor | 14 | 73.68% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 1 | 5.00% |
| fairly important | 3 | 16.67% | fairly important | 2 | 10.00% |
| very/extrem. impor | 15 | 83.33% | very/extrem. impor | 17 | 85.00% |

| GROUP 6 | 18 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 4 | 22.22% | fairly important | 2 | 12.50% |
| very/extrem. impor | 14 | 77.78% | very/extrem. impor | 14 | 87.50% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 4 | 20.00% | fairly important | 4 | 22.22% |
| very/extrem. impor | 16 | 80.00% | very/extrem. impor | 14 | 77.78% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 2 | 16.67% | not/somew. import | 0 | 0.00% |
| fairly important | 1 | 8.33% | fairly important | 1 | 6.67% |
| very/extrem. impor | 9 | 75.00% | very/extrem. impor | 14 | 93.33% |

Question 7.13
Rate the importance of security from crime.


| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 0.52% | not/somew. import | 0 | 0.00% |
| fairly important | 9 | 4.64% | fairly important | 0 | 0.00% |
| very/extrem. impor | 184 | 94.85% | very/extrem. impor | 19 | 100.00% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 6.25% | not/somew. import | 0 | 0.00% |
| fairly important | 3 | 18.75% | fairly important | 1 | 5.00% |
| very/extrem. impor | 12 | 75.00% | very/extrem. impor | 19 | 95.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 2 | 11.11% | fairly important | 0 | 0.00% |
| very/extrem. impor | 16 | 88.89% | very/extrem. impor | 20 | 100.00% |


| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 0 | 0.00% | fairly important | 1 | 5.88% |
| very/extrem. impor | 19 | 100.00% | very/extrem. impor | 16 | 94.12% |


| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 0 | 0.00% | fairly important | 1 | 5.56% |
| very/extrem. impor | 20 | 100.00% | very/extrem. impor | 17 | 94.44% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 1 | 8.33% | fairly important | 0 | 0.00% |
| very/extrem. impor | 11 | 91.67% | very/extrem. impor | 15 | 100.00% |

Question 7.14
Rate the importance of having quiet neighbours.


| ALL GROUPS | 190 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 15 | 7.89% | not/somew. import | 1 | 5.26% |
| fairly important | 46 | 24.21% | fairly important | 3 | 15.79% |
| very/extrem. impor | 129 | 67.89% | very/extrem. impor | 15 | 78.95% |


| GROUP 2 | 16 | | GROUP 3 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 2 | 12.50% | not/somew. import | 1 | 5.56% |
| fairly important | 4 | 25.00% | fairly important | 6 | 33.33% |
| very/extrem. impor | 10 | 62.50% | very/extrem. impor | 11 | 61.11% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 4 | 22.22% | not/somew. import | 0 | 0.00% |
| fairly important | 5 | 27.78% | fairly important | 3 | 15.00% |
| very/extrem. impor | 9 | 50.00% | very/extrem. impor | 17 | 85.00% |


| GROUP 6 | 19 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 5.26% | not/somew. import | 1 | 6.25% |
| fairly important | 3 | 15.79% | fairly important | 5 | 31.25% |
| very/extrem. impor | 15 | 78.95% | very/extrem. impor | 10 | 62.50% |


| GROUP 8 | 19 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 3 | 15.79% | not/somew. import | 1 | 5.56% |
| fairly important | 5 | 26.32% | fairly important | 6 | 33.33% |
| very/extrem. impor | 11 | 57.89% | very/extrem. impor | 11 | 61.11% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 8.33% | not/somew. import | 0 | 0.00% |
| fairly important | 2 | 16.67% | fairly important | 4 | 26.67% |
| very/extrem. impor | 9 | 75.00% | very/extrem. impor | 11 | 73.33% |

Question 7.15
Rate the importance of quiet streets


| ALL GROUPS | 189 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 17 | 8.99% | not/somew. import | 0 | 0.00% |
| fairly important | 60 | 31.75% | fairly important | 2 | 10.53% |
| very/extrem. impor | 112 | 59.26% | very/extrem. impor | 17 | 89.47% |

| GROUP 2 | 16 | | GROUP 3 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 5 | 31.25% | not/somew. import | 1 | 5.56% |
| fairly important | 4 | 25.00% | fairly important | 9 | 50.00% |
| very/extrem. impor | 7 | 43.75% | very/extrem. impor | 8 | 44.44% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 3 | 16.67% | not/somew. import | 0 | 0.00% |
| fairly important | 6 | 33.33% | fairly important | 4 | 20.00% |
| very/extrem. impor | 9 | 50.00% | very/extrem. impor | 16 | 80.00% |

| GROUP 6 | 18 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| not/somew. import | 4 | 22.22% | not/somew. import | 1 | 6.25% |
| fairly important | 4 | 22.22% | fairly important | 4 | 25.00% |
| very/extrem. impor | 10 | 55.56% | very/extrem. impor | 11 | 68.75% |

| GROUP 8 | 19 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 5.26% | not/somew. import | 1 | 5.56% |
| fairly important | 10 | 52.63% | fairly important | 9 | 50.00% |
| very/extrem. impor | 8 | 42.11% | very/extrem. impor | 8 | 44.44% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 8.33% | not/somew. import | 0 | 0.00% |
| fairly important | 4 | 33.33% | fairly important | 4 | 26.67% |
| very/extrem. impor | 7 | 58.33% | very/extrem. impor | 11 | 73.33% |

Question 7.16
Rate the importance of greenery and trees


| ALL GROUPS | 192 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 6 | 3.13% | not/somew. import | 0 | 0.00% |
| fairly important | 28 | 14.58% | fairly important | 1 | 5.26% |
| very/extrem. impor | 158 | 82.29% | very/extrem. impor | 18 | 94.74% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 3 | 15.00% |
| fairly important | 5 | 31.25% | fairly important | 2 | 10.00% |
| very/extrem. impor | 11 | 68.75% | very/extrem. impor | 15 | 75.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 3 | 16.67% | fairly important | 2 | 10.00% |
| very/extrem. impor | 15 | 83.33% | very/extrem. impor | 18 | 90.00% |


| GROUP 6 | 19 | | GROUP 7 | 16 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 5.26% | not/somew. import | 0 | 0.00% |
| fairly important | 5 | 26.32% | fairly important | 1 | 6.25% |
| very/extrem. impor | 13 | 68.42% | very/extrem. impor | 15 | 93.75% |


| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 4 | 20.00% | fairly important | 3 | 16.67% |
| very/extrem. impor | 16 | 80.00% | very/extrem. impor | 15 | 83.33% |


| GROUP 10 | 11 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 2 | 13.33% |
| fairly important | 0 | 0.00% | fairly important | 2 | 13.33% |
| very/extrem. impor | 11 | 100.00% | very/extrem. impor | 11 | 73.33% |

Question 7.17
Rate the importance of the absence of odour and fumes.

| ALL GROUPS | 189 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 5 | 2.65% | not/somew. import | 0 | 0.00% |
| fairly important | 17 | 8.99% | fairly important | 0 | 0.00% |
| very/extrem. impor | 167 | 88.36% | very/extrem. impor | 19 | 100.00% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 6.25% | not/somew. import | 1 | 5.00% |
| fairly important | 2 | 12.50% | fairly important | 3 | 15.00% |
| very/extrem. impor | 13 | 81.25% | very/extrem. impor | 16 | 80.00% |

| GROUP 4 | 16 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 0 | 0.00% |
| fairly important | 2 | 12.50% | fairly important | 1 | 5.00% |
| very/extrem. impor | 14 | 87.50% | very/extrem. impor | 19 | 95.00% |

| GROUP 6 | 19 | | GROUP 7 | 14 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 5.26% | not/somew. import | 0 | 0.00% |
| fairly important | 1 | 5.26% | fairly important | 2 | 14.29% |
| very/extrem. impor | 17 | 89.47% | very/extrem. impor | 12 | 85.71% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 1 | 5.56% |
| fairly important | 1 | 5.00% | fairly important | 2 | 11.11% |
| very/extrem. impor | 19 | 95.00% | very/extrem. impor | 15 | 83.33% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 8.33% | not/somew. import | 0 | 0.00% |
| fairly important | 1 | 8.33% | fairly important | 2 | 13.33% |
| very/extrem. impor | 10 | 83.33% | very/extrem. impor | 13 | 86.67% |

Question 7.18
Rate the importance of having a residential-only neighbourhood.


ALL GROUPS              186            GROUP 1              19

not/somew. import    95    51.08%     not/somew. import    3    15.79%
fairly important     36    19.35%     fairly important     4    21.05%
very/extrem. impor   55    29.57%     very/extrem. impor  12    63.16%


GROUP 2                14            GROUP 3              18

not/somew. import    10    71.43%     not/somew. import    7    38.89%
fairly important      1     7.14%     fairly important     6    33.33%
very/extrem. impor    3    21.43%     very/extrem. impor   5    27.78%


GROUP 4                17            GROUP 5              20

not/somew. import     9    52.94%     not/somew. import    5    25.00%
fairly important      3    17.65%     fairly important     7    35.00%
very/extrem. impor    5    29.41%     very/extrem. impor   8    40.00%


GROUP 6                19            GROUP 7              17

not/somew. import     8    42.11%     not/somew. import   10    58.82%
fairly important      5    26.32%     fairly important     2    11.76%
very/extrem. impor    6    31.58%     very/extrem. impor   5    29.41%


GROUP 8                19            GROUP 9              17

not/somew. import    15    78.95%     not/somew. import   12    70.59%
fairly important      1     5.26%     fairly important     3    17.65%
very/extrem. impor    3    15.79%     very/extrem. impor   2    11.76%


GROUP 10               12            GROUP 11             14

not/somew. import     8    66.67%     not/somew. import    8    57.14%
fairly important      2    16.67%     fairly important     2    14.29%
very/extrem. impor    2    16.67%     very/extrem. impor   4    28.57%

Question 7.19
Rate the importance of having a mixed use neighbourhood.


| ALL GROUPS | 181 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 54 | 29.83% | not/somew. import | 10 | 52.63% |
| fairly important | 50 | 27.62% | fairly important | 6 | 31.58% |
| very/extrem. impor | 77 | 42.54% | very/extrem. impor | 3 | 15.79% |


| GROUP 2 | 13 | | GROUP 3 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 3 | 23.08% | not/somew. import | 5 | 29.41% |
| fairly important | 6 | 46.15% | fairly important | 4 | 23.53% |
| very/extrem. impor | 4 | 30.77% | very/extrem. impor | 8 | 47.06% |


| GROUP 4 | 16 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 2 | 12.50% | not/somew. import | 8 | 40.00% |
| fairly important | 3 | 18.75% | fairly important | 4 | 20.00% |
| very/extrem. impor | 11 | 68.75% | very/extrem. impor | 8 | 40.00% |


| GROUP 6 | 17 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 5 | 29.41% | not/somew. import | 8 | 47.06% |
| fairly important | 5 | 29.41% | fairly important | 1 | 5.88% |
| very/extrem. impor | 7 | 41.18% | very/extrem. impor | 8 | 47.06% |


| GROUP 8 | 19 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 5 | 26.32% | not/somew. import | 1 | 5.88% |
| fairly important | 3 | 15.79% | fairly important | 9 | 52.94% |
| very/extrem. impor | 11 | 57.89% | very/extrem. impor | 7 | 41.18% |


| GROUP 10 | 12 | | GROUP 11 | 14 | |
|---|---|---|---|---|---|
| not/somew. import | 2 | 16.67% | not/somew. import | 5 | 35.71% |
| fairly important | 4 | 33.33% | fairly important | 5 | 35.71% |
| very/extrem. impor | 6 | 50.00% | very/extrem. impor | 4 | 28.57% |

Question 7.20
Rate the importance of the visual appearance of the neighbourhood.


| ALL GROUPS | 192 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 13 | 6.77% | not/somew. import | 1 | 5.26% |
| fairly important | 48 | 25.00% | fairly important | 2 | 10.53% |
| very/extrem. impor | 131 | 68.23% | very/extrem. impor | 16 | 84.21% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 4 | 25.00% | not/somew. import | 2 | 10.00% |
| fairly important | 4 | 25.00% | fairly important | 6 | 30.00% |
| very/extrem. impor | 8 | 50.00% | very/extrem. impor | 12 | 60.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 5.56% | not/somew. import | 1 | 5.00% |
| fairly important | 5 | 27.78% | fairly important | 3 | 15.00% |
| very/extrem. impor | 12 | 66.67% | very/extrem. impor | 16 | 80.00% |

| GROUP 6 | 19 | | GROUP 7 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 5.26% | not/somew. import | 0 | 0.00% |
| fairly important | 4 | 21.05% | fairly important | 5 | 33.33% |
| very/extrem. impor | 14 | 73.68% | very/extrem. impor | 10 | 66.67% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somew. import | 0 | 0.00% | not/somew. import | 2 | 11.11% |
| fairly important | 8 | 40.00% | fairly important | 5 | 27.78% |
| very/extrem. impor | 12 | 60.00% | very/extrem. impor | 11 | 61.11% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 1 | 8.33% | not/somew. import | 0 | 0.00% |
| fairly important | 2 | 16.67% | fairly important | 4 | 26.67% |
| very/extrem. impor | 9 | 75.00% | very/extrem. impor | 11 | 73.33% |

Question 7.21
Rate the importance of lots of activity on the street


| ALL GROUPS | 188 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 100 | 53.19% | not/somew. import | 12 | 63.16% |
| fairly important | 45 | 23.94% | fairly important | 6 | 31.58% |
| very/extrem. impor | 43 | 22.87% | very/extrem. impor | 1 | 5.26% |

| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 6 | 37.50% | not/somew. import | 15 | 78.95% |
| fairly important | 2 | 12.50% | fairly important | 3 | 15.79% |
| very/extrem. impor | 8 | 50.00% | very/extrem. impor | 1 | 5.26% |

| GROUP 4 | 18 | | GROUP 5 | 19 | |
|---|---|---|---|---|---|
| not/somew. import | 8 | 44.44% | not/somew. import | 11 | 57.89% |
| fairly important | 5 | 27.78% | fairly important | 3 | 15.79% |
| very/extrem. impor | 5 | 27.78% | very/extrem. impor | 5 | 26.32% |

| GROUP 6 | 18 | | GROUP 7 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 9 | 50.00% | not/somew. import | 5 | 33.33% |
| fairly important | 5 | 27.78% | fairly important | 5 | 33.33% |
| very/extrem. impor | 4 | 22.22% | very/extrem. impor | 5 | 33.33% |

| GROUP 8 | 20 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| not/somew. import | 8 | 40.00% | not/somew. import | 8 | 47.06% |
| fairly important | 7 | 35.00% | fairly important | 5 | 29.41% |
| very/extrem. impor | 5 | 25.00% | very/extrem. impor | 4 | 23.53% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somew. import | 6 | 50.00% | not/somew. import | 12 | 80.00% |
| fairly important | 2 | 16.67% | fairly important | 2 | 13.33% |
| very/extrem. impor | 4 | 33.33% | very/extrem. impor | 1 | 6.67% |

Question 7.22
Rate the importance of having neighbours with similar lifestyle.


ALL GROUPS            193              GROUP 1              19

not/somew. import   115   59.59%       not/somew. import    7   36.84%
fairly important     40   20.73%       fairly important     6   31.58%
very/extrem. impor   38   19.69%       very/extrem. impor   6   31.58%


GROUP 2               16              GROUP 3              20

not/somew. import    13   81.25%       not/somew. import   15   75.00%
fairly important      3   18.75%       fairly important     2   10.00%
very/extrem. impor    0    0.00%       very/extrem. impor   3   15.00%


GROUP 4               18              GROUP 5              20

not/somew. import     8   44.44%       not/somew. import    9   45.00%
fairly important      7   38.89%       fairly important     5   25.00%
very/extrem. impor    3   16.67%       very/extrem. impor   6   30.00%


GROUP 6               19              GROUP 7              17

not/somew. import     9   47.37%       not/somew. import   11   64.71%
fairly important      3   15.79%       fairly important     2   11.76%
very/extrem. impor    7   36.84%       very/extrem. impor   4   23.53%


GROUP 8               19              GROUP 9              18

not/somew. import     9   47.37%       not/somew. import   13   72.22%
fairly important      7   36.84%       fairly important     2   11.11%
very/extrem. impor    3   15.79%       very/extrem. impor   3   16.67%


GROUP 10              12              GROUP 11             15

not/somew. import    10   83.33%       not/somew. import   11   73.33%
fairly important      1    8.33%       fairly important     2   13.33%
very/extrem. impor    1    8.33%       very/extrem. impor   2   13.33%

Question 7.23
Rate the importance of having people with a variety of lifestyles


| ALL GROUPS | 188 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 71 | 37.77% | not/somewh. import | 11 | 57.89% |
| fairly important | 58 | 30.85% | fairly important | 3 | 15.79% |
| very/extrem import | 59 | 31.38% | very/extrem import | 5 | 26.32% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 1 | 6.25% | not/somewh. import | 7 | 35.00% |
| fairly important | 6 | 37.50% | fairly important | 5 | 25.00% |
| very/extrem import | 9 | 56.25% | very/extrem import | 8 | 40.00% |


| GROUP 4 | 17 | | GROUP 5 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 10 | 58.82% | not/somewh. import | 7 | 36.84% |
| fairly important | 4 | 23.53% | fairly important | 8 | 42.11% |
| very/extrem import | 3 | 17.65% | very/extrem import | 4 | 21.05% |


| GROUP 6 | 17 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| not/somewh. import | 9 | 52.94% | not/somewh. import | 5 | 29.41% |
| fairly important | 4 | 23.53% | fairly important | 6 | 35.29% |
| very/extrem import | 4 | 23.53% | very/extrem import | 6 | 35.29% |


| GROUP 8 | 19 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| not/somewh. import | 6 | 31.58% | not/somewh. import | 7 | 38.89% |
| fairly important | 4 | 21.05% | fairly important | 8 | 44.44% |
| very/extrem import | 9 | 47.37% | very/extrem import | 3 | 16.67% |


| GROUP 10 | 12 | | GROUP 11 | 14 | |
|---|---|---|---|---|---|
| not/somewh. import | 2 | 16.67% | not/somewh. import | 6 | 42.86% |
| fairly important | 5 | 41.67% | fairly important | 5 | 35.71% |
| very/extrem import | 5 | 41.67% | very/extrem import | 3 | 21.43% |

Question 7.24
Rate the importance of socializing with your neighbours


ALL GROUPS               194          GROUP 1                  19

not/somewh. import   84    43.30%     not/somewh. import    9    47.37%
fairly important     51    26.29%     fairly important      6    31.58%
very/extrem import   59    30.41%     very/extrem import    4    21.05%


GROUP 2                   16          GROUP 3                  20

not/somewh. import    6    37.50%     not/somewh. import    8    40.00%
fairly important      5    31.25%     fairly important      8    40.00%
very/extrem import    5    31.25%     very/extrem import    4    20.00%


GROUP 4                   18          GROUP 5                  20

not/somewh. import   10    55.56%     not/somewh. import    7    35.00%
fairly important      4    22.22%     fairly important      2    10.00%
very/extrem import    4    22.22%     very/extrem import   11    55.00%


GROUP 6                   19          GROUP 7                  17

not/somewh. import    7    36.84%     not/somewh. import    8    47.06%
fairly important      7    36.84%     fairly important      3    17.65%
very/extrem import    5    26.32%     very/extrem import    6    35.29%


GROUP 8                   20          GROUP 9                  18

not/somewh. import   10    50.00%     not/somewh. import    7    38.89%
fairly important      3    15.00%     fairly important      5    27.78%
very/extrem import    7    35.00%     very/extrem import    6    33.33%


GROUP 10                  12          GROUP 11                 15

not/somewh. import    9    75.00%     not/somewh. import    3    20.00%
fairly important      1     8.33%     fairly important      7    46.67%
very/extrem import    2    16.67%     very/extrem import    5    33.33%

Question 7.25
Rate the importance of not being bothered by your neighbours


| ALL GROUPS | 187 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| not/somewh. import | 60 | 32.09% | not/somewh. import | 8 | 42.11% |
| fairly important | 48 | 25.67% | fairly important | 6 | 31.58% |
| very/extrem import | 79 | 42.25% | very/extrem import | 5 | 26.32% |


| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 8 | 50.00% | not/somewh. import | 9 | 45.00% |
| fairly important | 5 | 31.25% | fairly important | 2 | 10.00% |
| very/extrem import | 3 | 18.75% | very/extrem import | 9 | 45.00% |


| GROUP 4 | 17 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| not/somewh. import | 6 | 35.29% | not/somewh. import | 3 | 15.00% |
| fairly important | 6 | 35.29% | fairly important | 7 | 35.00% |
| very/extrem import | 5 | 29.41% | very/extrem import | 10 | 50.00% |


| GROUP 6 | 17 | | GROUP 7 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 4 | 23.53% | not/somewh. import | 4 | 26.67% |
| fairly important | 6 | 35.29% | fairly important | 2 | 13.33% |
| very/extrem import | 7 | 41.18% | very/extrem import | 9 | 60.00% |


| GROUP 8 | 20 | | GROUP 9 | 16 | |
|---|---|---|---|---|---|
| not/somewh. import | 8 | 40.00% | not/somewh. import | 5 | 31.25% |
| fairly important | 3 | 15.00% | fairly important | 3 | 18.75% |
| very/extrem import | 9 | 45.00% | very/extrem import | 8 | 50.00% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | not/somewh. import | 5 | 33.33% |
| fairly important | 1 | 8.33% | fairly important | 7 | 46.67% |
| very/extrem import | 11 | 91.67% | very/extrem import | 3 | 20.00% |

Question 7.26
Rate the importance of having neighbours that offer help
  when needed.


ALL GROUPS              192           GROUP 1             19

not/somewh. import  26    13.54%      not/somewh. import   3    15.79%
fairly important    56    29.17%      fairly important     4    21.05%
very/extrem import 110    57.29%      very/extrem import  12    63.16%


GROUP 2                  16           GROUP 3             20

not/somewh. import   2    12.50%      not/somewh. import   4    20.00%
fairly important     7    43.75%      fairly important     4    20.00%
very/extrem import   7    43.75%      very/extrem import  12    60.00%


GROUP 4                  17           GROUP 5             20

not/somewh. import   1     5.88%      not/somewh. import   1     5.00%
fairly important     7    41.18%      fairly important     1     5.00%
very/extrem import   9    52.94%      very/extrem import  18    90.00%


GROUP 6                  19           GROUP 7             17

not/somewh. import   2    10.53%      not/somewh. import   0     0.00%
fairly important     6    31.58%      fairly important     5    29.41%
very/extrem import  11    57.89%      very/extrem import  12    70.59%


GROUP 8                  20           GROUP 9             18

not/somewh. import   5    25.00%      not/somewh. import   5    27.78%
fairly important     3    15.00%      fairly important     6    33.33%
very/extrem import  12    60.00%      very/extrem import   7    38.89%


GROUP 10                 11           GROUP 11            15

not/somewh. import   2    18.18%      not/somewh. import   1     6.67%
fairly important     6    54.55%      fairly important     7    46.67%
very/extrem import   3    27.27%      ·very/extrem import   7    46.67%

Question 7.28
Rate the importance of having a neighbourhood watch and
  building security.

| ALL GROUPS | 124 | | | GROUP 1 | 0 | | |
|---|---|---|---|---|---|---|---|
| not/somewh. import | 22 | 17.74% | | not/somewh. import | 0 | 0.00% |
| fairly important | 22 | 17.74% | | fairly important | 0 | 0.00% |
| very/extrem import | 80 | 64.52% | | very/extrem import | 0 | 0.00% |

| GROUP 2 | 15 | | | GROUP 3 | 12 | | |
|---|---|---|---|---|---|---|---|
| not/somewh. import | 4 | 26.67% | | not/somewh. import | 4 | 33.33% |
| fairly important | 3 | 20.00% | | fairly important | 2 | 16.67% |
| very/extrem import | 8 | 53.33% | | very/extrem import | 6 | 50.00% |

| GROUP 4 | 14 | | | GROUP 5 | 0 | | |
|---|---|---|---|---|---|---|---|
| not/somewh. import | 3 | 21.43% | | not/somewh. import | 0 | 0.00% |
| fairly important | 4 | 28.57% | | fairly important | 0 | 0.00% |
| very/extrem import | 7 | 50.00% | | very/extrem import | 0 | 0.00% |

| GROUP 6 | 16 | | | GROUP 7 | 15 | | |
|---|---|---|---|---|---|---|---|
| not/somewh. import | 0 | 0.00% | | not/somewh. import | 3 | 20.00% |
| fairly important | 2 | 12.50% | | fairly important | 3 | 20.00% |
| very/extrem import | 14 | 87.50% | | very/extrem import | 9 | 60.00% |

| GROUP 8 | 15 | | | GROUP 9 | 16 | | |
|---|---|---|---|---|---|---|---|
| not/somewh. import | 3 | 20.00% | | not/somewh. import | 3 | 18.75% |
| fairly important | 4 | 26.67% | | fairly important | 1 | 6.25% |
| very/extrem import | 8 | 53.33% | | very/extrem import | 12 | 75.00% |

| GROUP 10 | 6 | | | GROUP 11 | 15 | | |
|---|---|---|---|---|---|---|---|
| not/somewh. import | 1 | 16.67% | | not/somewh. import | 1 | 6.67% |
| fairly important | 2 | 33.33% | | fairly important | 1 | 6.67% |
| very/extrem import | 3 | 50.00% | | very/extrem import | 13 | 86.67% |

Question 8.1
How do you do your regular grocery shopping?

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| by car | 87 | 44.85% | by car | 17 | 89.47% |
| by bus | 18 | 9.28% | by bus | 0 | 0.00% |
| by taxi | 2 | 1.03% | by taxi | 0 | 0.00% |
| walking | 65 | 33.51% | walking | 2 | 10.53% |
| cycling | 3 | 1.55% | cycling | 0 | 0.00% |
| other | 19 | 9.79% | other | 0 | 0.00% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| by car | 6 | 37.50% | by car | 8 | 40.00% |
| by bus | 1 | 6.25% | by bus | 1 | 5.00% |
| by taxi | 0 | 0.00% | by taxi | 0 | 0.00% |
| walking | 8 | 50.00% | walking | 9 | 45.00% |
| cycling | 0 | 0.00% | cycling | 1 | 5.00% |
| other | 1 | 6.25% | other | 1 | 5.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| by car | 4 | 22.22% | by car | 12 | 60.00% |
| by bus | 0 | 0.00% | by bus | 6 | 30.00% |
| by taxi | 0 | 0.00% | by taxi | 1 | 5.00% |
| walking | 9 | 50.00% | walking | 1 | 5.00% |
| cycling | 0 | 0.00% | cycling | 0 | 0.00% |
| other | 5 | 27.78% | other | 0 | 0.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| by car | 10 | 52.63% | by car | 9 | 52.94% |
| by bus | 4 | 21.05% | by bus | 0 | 0.00% |
| by taxi | 0 | 0.00% | by taxi | 0 | 0.00% |
| walking | 5 | 26.32% | walking | 6 | 35.29% |
| cycling | 0 | 0.00% | cycling | 0 | 0.00% |
| other | 0 | 0.00% | other | 2 | 11.76% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| by car | 7 | 35.00% | by car | 3 | 16.67% |
| by bus | 0 | 0.00% | by bus | 2 | 11.11% |
| by taxi | 1 | 5.00% | by taxi | 0 | 0.00% |
| walking | 9 | 45.00% | walking | 10 | 55.56% |
| cycling | 1 | 5.00% | cycling | 1 | 5.56% |
| other | 2 | 10.00% | other | 2 | 11.11% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| by car | 3 | 25.00% | by car | 8 | 53.33% |
| by bus | 0 | 0.00% | by bus | 4 | 26.67% |
| by taxi | 0 | 0.00% | by taxi | 0 | 0.00% |
| walking | 5 | 41.67% | walking | 1 | 6.67% |
| cycling | 0 | 0.00% | cycling | 0 | 0.00% |
| other | 4 | 33.33% | other | 2 | 13.33% |

Question 8.2
How often do you use public transit?

| ALL GROUPS | 194 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| every day | 53 | 27.32% | every day | 5 | 26.32% |
| a few times a week | 36 | 18.56% | a few times a week | 2 | 10.53% |
| occasionally | 29 | 14.95% | occasionally | 2 | 10.53% |
| rarely | 38 | 19.59% | rarely | 4 | 21.05% |
| never | 38 | 19.59% | never | 6 | 31.58% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| every day | 4 | 25.00% | every day | 2 | 10.00% |
| a few times a week | 2 | 12.50% | a few times a week | 7 | 35.00% |
| occasionally | 2 | 12.50% | occasionally | 7 | 35.00% |
| rarely | 4 | 25.00% | rarely | 4 | 20.00% |
| never | 4 | 25.00% | never | 0 | 0.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| every day | 9 | 50.00% | every day | 10 | 50.00% |
| a few times a week | 1 | 5.56% | a few times a week | 3 | 15.00% |
| occasionally | 2 | 11.11% | occasionally | 1 | 5.00% |
| rarely | 4 | 22.22% | rarely | 0 | 0.00% |
| never | 2 | 11.11% | never | 6 | 30.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| every day | 3 | 15.79% | every day | 3 | 17.65% |
| a few times a week | 5 | 26.32% | a few times a week | 3 | 17.65% |
| occasionally | 5 | 26.32% | occasionally | 2 | 11.76% |
| rarely | 3 | 15.79% | rarely | 3 | 17.65% |
| never | 3 | 15.79% | never | 6 | 35.29% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| every day | 7 | 35.00% | every day | 4 | 22.22% |
| a few times a week | 2 | 10.00% | a few times a week | 6 | 33.33% |
| occasionally | 2 | 10.00% | occasionally | 2 | 11.11% |
| rarely | 6 | 30.00% | rarely | 4 | 22.22% |
| never | 3 | 15.00% | never | 2 | 11.11% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| every day | 1 | 8.33% | every day | 5 | 33.33% |
| a few times a week | 0 | 0.00% | a few times a week | 5 | 33.33% |
| occasionally | 4 | 33.33% | occasionally | 0 | 0.00% |
| rarely | 4 | 33.33% | rarely | 2 | 13.33% |
| never | 3 | 25.00% | never | 3 | 20.00% |

Question 9.1
What is mortgage or rent payment per month?

| ALL GROUPS | 183 | | GROUP 1 | 17 | |
|---|---|---|---|---|---|
| no mortgage/rent | 27 | 14.75% | no mortgage/rent | 7 | 41.18% |
| < - 250 | 2 | 1.09% | < - 250 | 0 | 0.00% |
| 250-500 | 32 | 17.49% | 250-500 | 2 | 11.76% |
| 500-750 | 70 | 38.25% | 500-750 | 0 | 0.00% |
| 750-1000 | 30 | 16.39% | 750-1000 | 4 | 23.53% |
| > 1000 | 22 | 12.02% | > 1000 | 4 | 23.53% |

| GROUP 2 | 14 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| no mortgage/rent | 1 | 7.14% | no mortgage/rent | 0 | 0.00% |
| < - 250 | 0 | 0.00% | < - 250 | 0 | 0.00% |
| 250-500 | 3 | 21.43% | 250-500 | 5 | 26.32% |
| 500-750 | 5 | 35.71% | 500-750 | 9 | 47.37% |
| 750-1000 | 2 | 14.29% | 750-1000 | 1 | 5.26% |
| > 1000 | 3 | 21.43% | > 1000 | 4 | 21.05% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| no mortgage/rent | 1 | 5.56% | no mortgage/rent | 2 | 10.00% |
| < - 250 | 0 | 0.00% | < - 250 | 1 | 5.00% |
| 250-500 | 3 | 16.67% | 250-500 | 1 | 5.00% |
| 500-750 | 6 | 33.33% | 500-750 | 12 | 60.00% |
| 750-1000 | 5 | 27.78% | 750-1000 | 4 | 20.00% |
| > 1000 | 3 | 16.67% | > 1000 | 0 | 0.00% |

| GROUP 6 | 19 | | GROUP 7 | 15 | |
|---|---|---|---|---|---|
| no mortgage/rent | 8 | 42.11% | no mortgage/rent | 1 | 6.67% |
| < - 250 | 0 | 0.00% | < - 250 | 1 | 6.67% |
| 250-500 | 0 | 0.00% | 250-500 | 4 | 26.67% |
| 500-750 | 6 | 31.58% | 500-750 | 5 | 33.33% |
| 750-1000 | 4 | 21.05% | 750-1000 | 2 | 13.33% |
| > 1000 | 1 | 5.26% | > 1000 | 2 | 13.33% |

| GROUP 8 | 20 | | GROUP 9 | 14 | |
|---|---|---|---|---|---|
| no mortgage/rent | 2 | 10.00% | no mortgage/rent | 1 | 7.14% |
| < - 250 | 0 | 0.00% | < - 250 | 0 | 0.00% |
| 250-500 | 7 | 35.00% | 250-500 | 5 | 35.71% |
| 500-750 | 6 | 30.00% | 500-750 | 6 | 42.86% |
| 750-1000 | 4 | 20.00% | 750-1000 | 2 | 14.29% |
| > 1000 | 1 | 5.00% | > 1000 | 0 | 0.00% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| no mortgage/rent | 4 | 33.33% | no mortgage/rent | 0 | 0.00% |
| < - 250 | 0 | 0.00% | < - 250 | 0 | 0.00% |
| 250-500 | 0 | 0.00% | 250-500 | 2 | 13.33% |
| 500-750 | 2 | 16.67% | 500-750 | 13 | 86.67% |
| 750-1000 | 2 | 16.67% | 750-1000 | 0 | 0.00% |
| > 1000 | 4 | 33.33% | > 1000 | 0 | 0.00% |

Question 9.2
What proportion of your total take-home income
    goes into your housing

| ALL GROUPS | 179 | | GROUP 1 | 17 | |
|---|---|---|---|---|---|
| < 10% | 16 | 8.94% | < 10% | 3 | 17.65% |
| 10% - 25% | 48 | 26.82% | 10% - 25% | 6 | 35.29% |
| 25% - 33% | 39 | 21.79% | 25% - 33% | 3 | 17.65% |
| 33% - half | 42 | 23.46% | 33% - half | 2 | 11.76% |
| more than half | 34 | 18.99% | more than half | 3 | 17.65% |

| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| < 10% | 0 | 0.00% | < 10% | 1 | 5.26% |
| 10% - 25% | 4 | 25.00% | 10% - 25% | 1 | 5.26% |
| 25% - 33% | 6 | 37.50% | 25% - 33% | 5 | 26.32% |
| 33% - half | 2 | 12.50% | 33% - half | 7 | 36.84% |
| more than half | 4 | 25.00% | more than half | 5 | 26.32% |

| GROUP 4 | 18 | | GROUP 5 | 18 | |
|---|---|---|---|---|---|
| < 10% | 0 | 0.00% | < 10% | 2 | 11.11% |
| 10% - 25% | 5 | 27.78% | 10% - 25% | 4 | 22.22% |
| 25% - 33% | 6 | 33.33% | 25% - 33% | 3 | 16.67% |
| 33% - half | 2 | 11.11% | 33% - half | 3 | 16.67% |
| more than half | 5 | 27.78% | more than half | 6 | 33.33% |

| GROUP 6 | 17 | | GROUP 7 | 14 | |
|---|---|---|---|---|---|
| < 10% | 2 | 11.76% | < 10% | 1 | 7.14% |
| 10% - 25% | 7 | 41.18% | 10% - 25% | 6 | 42.86% |
| 25% - 33% | 1 | 5.88% | 25% - 33% | 2 | 14.29% |
| 33% - half | 7 | 41.18% | 33% - half | 3 | 21.43% |
| more than half | 0 | 0.00% | more than half | 2 | 14.29% |

| GROUP 8 | 19 | | GROUP 9 | 14 | |
|---|---|---|---|---|---|
| < 10% | 1 | 5.26% | < 10% | 2 | 14.29% |
| 10% - 25% | 7 | 36.84% | 10% - 25% | 2 | 14.29% |
| 25% - 33% | 4 | 21.05% | 25% - 33% | 3 | 21.43% |
| 33% - half | 2 | 10.53% | 33% - half | 4 | 28.57% |
| more than half | 5 | 26.32% | more than half | 3 | 21.43% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| < 10% | 4 | 33.33% | < 10% | 0 | 0.00% |
| 10% - 25% | 3 | 25.00% | 10% - 25% | 3 | 20.00% |
| 25% - 33% | 1 | 8.33% | 25% - 33% | 5 | 33.33% |
| 33% - half | 4 | 33.33% | 33% - half | 6 | 40.00% |
| more than half | 0 | 0.00% | more than half | 1 | 6.67% |

Question 10.1
Would you stay/move from your present home?


| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| stay | 122 | 63.21% | stay | 14 | 73.68% |
| move | 68 | 35.23% | move | 5 | 26.32% |
| no preference | 3 | 1.55% | no preference | 0 | 0.00% |


| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| stay | 11 | 68.75% | stay | 11 | 57.89% |
| move | 5 | 31.25% | move | 8 | 42.11% |
| no preference | 0 | 0.00% | no preference | 0 | 0.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| stay | 13 | 72.22% | stay | 12 | 60.00% |
| move | 5 | 27.78% | move | 8 | 40.00% |
| no preference | 0 | 0.00% | no preference | 0 | 0.00% |


| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| stay | 15 | 78.95% | stay | 10 | 58.82% |
| move | 3 | 15.79% | move | 7 | 41.18% |
| no preference | 1 | 5.26% | no preference | 0 | 0.00% |


| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| stay | 12 | 60.00% | stay | 10 | 55.56% |
| move | 8 | 40.00% | move | 6 | 33.33% |
| no preference | 0 | 0.00% | no preference | 2 | 11.11% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| stay | 7 | 58.33% | stay | 7 | 46.67% |
| move | 5 | 41.67% | move | 8 | 53.33% |
| no preference | 0 | 0.00% | no preference | 0 | 0.00% |

Question 10.2
Would you stay/move from your present neighbourhood?


| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| stay | 165 | 85.49% | stay | 16 | 84.21% |
| move | 23 | 11.92% | move | 3 | 15.79% |
| no preference | 5 | 2.59% | no preference | 0 | 0.00% |

| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| stay | 15 | 93.75% | stay | 17 | 89.47% |
| move | 1 | 6.25% | move | 1 | 5.26% |
| no preference | 0 | 0.00% | no preference | 1 | 5.26% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| stay | 18 | 100.00% | stay | 12 | 60.00% |
| move | 0 | 0.00% | move | 8 | 40.00% |
| no preference | 0 | 0.00% | no preference | 0 | 0.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| stay | 17 | 89.47% | stay | 14 | 82.35% |
| move | 1 | 5.26% | move | 2 | 11.76% |
| no preference | 1 | 5.26% | no preference | 1 | 5.88% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| stay | 18 | 90.00% | stay | 16 | 88.89% |
| move | 2 | 10.00% | move | 1 | 5.56% |
| no preference | 0 | 0.00% | no preference | 1 | 5.56% |

| GROUP 10 | 13 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| stay | 11 | 91.67% | stay | 12 | 80.00% |
| move | 1 | 8.33% | move | 3 | 20.00% |
| no preference | 1 | 8.33% | no preference | 0 | 0.00% |

Question 10.3
Do you plan to move in the near future?

| ALL GROUPS | 174 | | GROUP 1 | 17 | |
|---|---|---|---|---|---|
| yes, within 2 yrs | 76 | 39.18% | yes, within 2 yrs | 2 | 11.76% |
| yes, within 5 yrs | 11 | 5.67% | yes, within 5 yrs | 0 | 0.00% |
| yes, beyond 5 yrs | 2 | 1.03% | yes, beyond 5 yrs | 2 | 11.76% |
| no | 85 | 43.81% | no | 13 | 76.47% |

| GROUP 2 | 15 | | GROUP 3 | 18 | |
|---|---|---|---|---|---|
| yes, within 2 yrs | 5 | 33.33% | yes, within 2 yrs | 10 | 55.56% |
| yes, within 5 yrs | 0 | 0.00% | yes, within 5 yrs | 2 | 11.11% |
| yes, beyond 5 yrs | 0 | 0.00% | yes, beyond 5 yrs | 0 | 0.00% |
| no | 10 | 66.67% | no | 6 | 33.33% |

| GROUP 4 | 14 | | GROUP 5 | 19 | |
|---|---|---|---|---|---|
| yes, within 2 yrs | 7 | 50.00% | yes, within 2 yrs | 10 | 52.63% |
| yes, within 5 yrs | 3 | 21.43% | yes, within 5 yrs | 1 | 5.26% |
| yes, beyond 5 yrs | 0 | 0.00% | yes, beyond 5 yrs | 0 | 0.00% |
| no | 4 | 28.57% | no | 8 | 42.11% |

| GROUP 6 | 17 | | GROUP 7 | 15 | |
|---|---|---|---|---|---|
| yes, within 2 yrs | 8 | 47.06% | yes, within 2 yrs | 6 | 40.00% |
| yes, within 5 yrs | 0 | 0.00% | yes, within 5 yrs | 1 | 6.67% |
| yes, beyond 5 yrs | 0 | 0.00% | yes, beyond 5 yrs | 0 | 0.00% |
| no | 9 | 52.94% | no | 8 | 53.33% |

| GROUP 8 | 19 | | GROUP 9 | 15 | |
|---|---|---|---|---|---|
| yes, within 2 yrs | 7 | 36.84% | yes, within 2 yrs | 7 | 46.67% |
| yes, within 5 yrs | 2 | 10.53% | yes, within 5 yrs | 0 | 0.00% |
| yes, beyond 5 yrs | 0 | 0.00% | yes, beyond 5 yrs | 0 | 0.00% |
| no | 10 | 52.63% | no | 8 | 53.33% |

| GROUP 10 | 12 | | GROUP 11 | 13 | |
|---|---|---|---|---|---|
| yes, within 2 yrs | 5 | 41.67% | yes, within 2 yrs | 9 | 69.23% |
| yes, within 5 yrs | 1 | 8.33% | yes, within 5 yrs | 1 | 7.69% |
| yes, beyond 5 yrs | 0 | 0.00% | yes, beyond 5 yrs | 0 | 0.00% |
| no | 6 | 50.00% | no | 3 | 23.08% |

Question 11.1
Are you thinking of becoming a homeowner?


ALL GROUPS          133                GROUP 1           2

yes                  88    66.17%      yes               2    100.00%
no                   45    33.83%      no                0      0.00%



GROUP 2               8                GROUP 3          18

yes                   6    75.00%      yes              12     66.67%
no                    2    25.00%      no                6     33.33%



GROUP 4              13                GROUP 5          20

yes                   8    61.54%      yes              10     50.00%
no                    5    38.46%      no               10     50.00%



GROUP 6              10                GROUP 7          12

yes                   8    80.00%      yes               6     50.00%
no                    2    20.00%      no                6     50.00%



GROUP 8              16                GROUP 9          18

yes                  12    75.00%      yes              15     83.33%
no                    4    25.00%      no                3     16.67%



GROUP 10              3                GROUP 11         13

yes                   2    66.67%      yes               7     53.85%
no                    1    33.33%      no                6     46.15%

Question 11.2
What monthly payments are you willing to pay?

ALL GROUPS        39                GROUP 1           0

< - 250      0       0.00%      no responses from this group
250 - 500    1       2.56%
500 - 750    13     33.33%
750 - 1000   14     35.90%
> 1000       11     28.21%


GROUP 2          2                  GROUP 3           4

< - 250      0       0.00%      < - 250      0       0.00%
250 - 500    0       0.00%      250 - 500    0       0.00%
500 - 750    0       0.00%      500 - 750    2      50.00%
750 - 1000   0       0.00%      750 - 1000   1      25.00%
> 1000       2     100.00%      > 1000       1      25.00%


GROUP 4          5                  GROUP 5           8

< - 250      0       0.00%      < - 250      0       0.00%
250 - 500    0       0.00%      250 - 500    0       0.00%
500 - 750    0       0.00%      500 - 750    5      62.50%
750 - 1000   3      60.00%      750 - 1000   3      37.50%
> 1000       2      40.00%      > 1000       0       0.00%


GROUP 6          2                  GROUP 7           4

< - 250      0       0.00%      < - 250      0       0.00%
250 - 500    0       0.00%      250 - 500    0       0.00%
500 - 750    1      50.00%      500 - 750    2      50.00%
750 - 1000   1      50.00%      750 - 1000   2      50.00%
> 1000       0       0.00%      > 1000       0       0.00%


GROUP 8          4                  GROUP 9           3

< - 250      0       0.00%      < - 250      0       0.00%
250 - 500    0       0.00%      250 - 500    1      33.33%
500 - 750    1      25.00%      500 - 750    1      33.33%
750 - 1000   1      25.00%      750 - 1000   0       0.00%
> 1000       2      50.00%      > 1000       1      33.33%


GROUP 10         1                  GROUP 11          6

< - 250      0       0.00%      < - 250      0       0.00%
250 - 500    0       0.00%      250 - 500    0       0.00%
500 - 750    1     100.00%      500 - 750    0       0.00%
750 - 1000   0       0.00%      750 - 1000   3      50.00%
> 1000       0       0.00%      > 1000       3      50.00%

Question 12.1
What kind of house would you accept for $135.000

| ALL GROUPS | 49 | | GROUP 1 | 0 | |
|---|---|---|---|---|---|
| single family | 21 | 42.86% | NO RESPONSES FROM THIS GROUP | | |
| semi-detached | 13 | 26.53% | | | |
| row/townhouse | 8 | 16.33% | | | |
| low den condo/apt | 3 | 6.12% | | | |
| high den condo/apt | 4 | 8.16% | | | |

| GROUP 2 | 2 | | GROUP 3 | 6 | |
|---|---|---|---|---|---|
| single family | 0 | 0.00% | single family | 2 | 33.33% |
| semi-detached | 2 | 100.00% | semi-detached | 3 | 50.00% |
| row/townhouse | 0 | 0.00% | row/townhouse | 1 | 16.67% |
| low den condo/apt | 0 | 0.00% | low den condo/apt | 0 | 0.00% |
| high den condo/apt | 0 | 0.00% | high den condo/apt | 0 | 0.00% |

| GROUP 4 | 3 | | GROUP 5 | 13 | |
|---|---|---|---|---|---|
| single family | 1 | 33.33% | single family | 7 | 53.85% |
| semi-detached | 1 | 33.33% | semi-detached | 4 | 30.77% |
| row/townhouse | 1 | 33.33% | row/townhouse | 0 | 0.00% |
| low den condo/apt | 0 | 0.00% | low den condo/apt | 0 | 0.00% |
| high den condo/apt | 0 | 0.00% | high den condo/apt | 2 | 15.38% |

| GROUP 6 | 2 | | GROUP 7 | 7 | |
|---|---|---|---|---|---|
| single family | 2 | 100.00% | single family | 5 | 71.43% |
| semi-detached | 0 | 0.00% | semi-detached | 2 | 28.57% |
| row/townhouse | 0 | 0.00% | row/townhouse | 0 | 0.00% |
| low den condo/apt | 0 | 0.00% | low den condo/apt | 0 | 0.00% |
| high den condo/apt | 0 | 0.00% | high den condo/apt | 0 | 0.00% |

| GROUP 8 | 5 | | GROUP 9 | 3 | |
|---|---|---|---|---|---|
| single family | 1 | 20.00% | single family | 1 | 33.33% |
| semi-detached | 0 | 0.00% | semi-detached | 0 | 0.00% |
| row/townhouse | 1 | 20.00% | row/townhouse | 0 | 0.00% |
| low den condo/apt | 2 | 40.00% | low den condo/apt | 1 | 33.33% |
| high den condo/apt | 1 | 20.00% | high den condo/apt | 1 | 33.33% |

| GROUP 10 | 3 | | GROUP 11 | 20 | |
|---|---|---|---|---|---|
| single family | 1 | 33.33% | single family | 10 | 50.00% |
| semi-detached | 1 | 33.33% | semi-detached | 3 | 15.00% |
| row/townhouse | 1 | 33.33% | row/townhouse | 2 | 10.00% |
| low den condo/apt | 0 | 0.00% | low den condo/apt | 3 | 15.00% |
| high den condo/apt | 0 | 0.00% | high den condo/apt | 2 | 10.00% |

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Question 12.2
What size of house would you accept for $135,000

ALL GROUPS          44                    GROUP 1          0

1100 sq ft.      7     15.91%       no responses from this group
1200 sq ft.      8     18.18%
1300 sq ft.      6     13.64%
1400 sq ft.      5     11.36%
1500 sq ft.      8     18.18%
> 1500 sq ft.   10     22.73%

GROUP 2           1                    GROUP 3           5

1100 sq ft.      0      0.00%       1100 sq ft.      2     40.00%
1200 sq ft.      1    100.00%       1200 sq ft.      0      0.00%
1300 sq ft.      0      0.00%       1300 sq ft.      1     20.00%
1400 sq ft.      0      0.00%       1400 sq ft.      1     20.00%
1500 sq ft.      0      0.00%       1500 sq ft.      1     20.00%
> 1500 sq ft.    0      0.00%       > 1500 sq ft.    0      0.00%

GROUP 4           4                    GROUP 5          11

1100 sq ft.      0      0.00%       1100 sq ft.      3     27.27%
1200 sq ft.      2     50.00%       1200 sq ft.      3     27.27%
1300 sq ft.      1     25.00%       1300 sq ft.      1      9.09%
1400 sq ft.      0      0.00%       1400 sq ft.      1      9.09%
1500 sq ft.      0      0.00%       1500 sq ft.      1      9.09%
> 1500 sq ft.    1     25.00%       > 1500 sq ft.    2     18.18%

GROUP 6           2                    GROUP 7           7

1100 sq ft.      0      0.00%       1100 sq ft.      0      0.00%
1200 sq ft.      0      0.00%       1200 sq ft.      0      0.00%
1300 sq ft.      0      0.00%       1300 sq ft.      0      0.00%
1400 sq ft.      1     50.00%       1400 sq ft.      2     28.57%
1500 sq ft.      1     50.00%       1500 sq ft.      1     14.29%
> 1500 sq ft.    0      0.00%       > 1500 sq ft.    4     57.14%

GROUP 8           7                    GROUP 9           3

1100 sq ft.      0      0.00%       1100 sq ft.      0      0.00%
1200 sq ft.      0      0.00%       1200 sq ft.      1     33.33%
1300 sq ft.      0      0.00%       1300 sq ft.      1     33.33%
1400 sq ft.      2     28.57%       1400 sq ft.      0      0.00%
1500 sq ft.      1     14.29%       1500 sq ft.      0      0.00%
> 1500 sq ft.    4     57.14%       > 1500 sq ft.    1     33.33%

GROUP 10          2                    GROUP 11          4

1100 sq ft.      0      0.00%       1100 sq ft.      1     25.00%
1200 sq ft.      0      0.00%       1200 sq ft.      1     25.00%
1300 sq ft.      0      0.00%       1300 sq ft.      1     25.00%
1400 sq ft.      0      0.00%       1400 sq ft.      0      0.00%
1500 sq ft.      1     50.00%       1500 sq ft.      1     25.00%
> 1500 sq ft.    1     50.00%       > 1500 sq ft.    0      0.00%

Question 12.3
How many bedrooms would you want in a $135,000 house?

| ALL GROUPS | 50 | | GROUP 1 | 0 | |
|---|---|---|---|---|---|
| one | 1 | 2.00% | no responses from this group | | |
| two | 21 | 42.00% | | | |
| three | 23 | 46.00% | | | |
| four | 5 | 10.00% | | | |
| more than four | 0 | 0.00% | | | |

| GROUP 2 | 2 | | GROUP 3 | 6 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 0 | 0.00% |
| two | 1 | 50.00% | two | 3 | 50.00% |
| three | 1 | 50.00% | three | 2 | 33.33% |
| four | 0 | 0.00% | four | 1 | 16.67% |
| more than four | 0 | 0.00% | more than four | 0 | 0.00% |

| GROUP 4 | 4 | | GROUP 5 | 13 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 1 | 7.69% |
| two | 2 | 50.00% | two | 3 | 23.08% |
| three | 2 | 50.00% | three | 6 | 46.15% |
| four | 0 | 0.00% | four | 3 | 23.08% |
| more than four | 0 | 0.00% | more than four | 0 | 0.00% |

| GROUP 6 | 2 | | GROUP 7 | 7 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 0 | 0.00% |
| two | 1 | 50.00% | two | 1 | 14.29% |
| three | 1 | 50.00% | three | 5 | 71.43% |
| four | 0 | 0.00% | four | 1 | 14.29% |
| more than four | 0 | 0.00% | more than four | 0 | 0.00% |

| GROUP 8 | 5 | | GROUP 9 | 3 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 0 | 0.00% |
| two | 4 | 80.00% | two | 3 | 100.00% |
| three | 1 | 20.00% | three | 0 | 0.00% |
| four | 0 | 0.00% | four | 0 | 0.00% |
| more than four | 0 | 0.00% | more than four | 0 | 0.00% |

| GROUP 10 | 2 | | GROUP 11 | 6 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 0 | 0.00% |
| two | 1 | 50.00% | two | 2 | 33.33% |
| three | 1 | 50.00% | three | 4 | 66.67% |
| four | 0 | 0.00% | four | 0 | 0.00% |
| more than four | 0 | 0.00% | more than four | 0 | 0.00% |

Question 12.4
What size of lot would you expect for a $135,000 house?

| ALL GROUPS | 37 | | GROUP 1 | 0 | |
|---|---|---|---|---|---|
| 25 x 75 | 6 | 16.22% | NO RESPONSES FROM THIS GROUP | | |
| 25 x 100 | 9 | 24.32% | | | |
| 35 x 75 | 10 | 27.03% | | | |
| 35 x 100 | 12 | 32.43% | | | |

| GROUP 2 | 1 | | GROUP 3 | 4 | |
|---|---|---|---|---|---|
| 25 x 75 | 0 | 0.00% | 25 x 75 | 0 | 0.00% |
| 25 x 100 | 0 | 0.00% | 25 x 100 | 0 | 0.00% |
| 35 x 75 | 0 | 0.00% | 35 x 75 | 4 | 100.00% |
| 35 x 100 | 1 | 100.00% | 35 x 100 | 0 | 0.00% |

| GROUP 4 | 4 | | GROUP 5 | 10 | |
|---|---|---|---|---|---|
| 25 x 75 | 0 | 0.00% | 25 x 75 | 1 | 10.00% |
| 25 x 100 | 3 | 75.00% | 25 x 100 | 3 | 30.00% |
| 35 x 75 | 0 | 0.00% | 35 x 75 | 1 | 10.00% |
| 35 x 100 | 1 | 25.00% | 35 x 100 | 5 | 50.00% |

| GROUP 6 | 2 | | GROUP 7 | 5 | |
|---|---|---|---|---|---|
| 25 x 75 | 0 | 0.00% | 25 x 75 | 1 | 20.00% |
| 25 x 100 | 2 | 100.00% | 25 x 100 | 0 | 0.00% |
| 35 x 75 | 0 | 0.00% | 35 x 75 | 2 | 40.00% |
| 35 x 100 | 0 | 0.00% | 35 x 100 | 2 | 40.00% |

| GROUP 8 | 2 | | GROUP 9 | 2 | |
|---|---|---|---|---|---|
| 25 x 75 | 0 | 0.00% | 25 x 75 | 2 | 100.00% |
| 25 x 100 | 0 | 0.00% | 25 x 100 | 0 | 0.00% |
| 35 x 75 | 1 | 50.00% | 35 x 75 | 0 | 0.00% |
| 35 x 100 | 1 | 50.00% | 35 x 100 | 0 | 0.00% |

| GROUP 10 | 2 | | GROUP 11 | 5 | |
|---|---|---|---|---|---|
| 25 x 75 | 0 | 0.00% | 25 x 75 | 2 | 40.00% |
| 25 x 100 | 0 | 0.00% | 25 x 100 | 1 | 20.00% |
| 35 x 75 | 2 | 100.00% | 35 x 75 | 0 | 0.00% |
| 35 x 100 | 0 | 0.00% | 35 x 100 | 2 | 40.00% |

Question 12.5
Minimum features of a $135,000 house

| ALL GROUPS | 50 | | GROUP 1 | 0 | |
|---|---|---|---|---|---|
| driveway | 17 | 34.00% | NO RESPONSES FROM THIS GROUP | | |
| carport | 9 | 18.00% | | | |
| one car garage | 22 | 44.00% | | | |
| two car garage | 2 | 4.00% | | | |

| GROUP 2 | 2 | | GROUP 3 | 6 | |
|---|---|---|---|---|---|
| driveway | 2 | 100.00% | driveway | 2 | 33.33% |
| carport | 0 | 0.00% | carport | 1 | 16.67% |
| one car garage | 0 | 0.00% | one car garage | 3 | 50.00% |
| two car garage | 0 | 0.00% | two car garage | 0 | 0.00% |

| GROUP 4 | 4 | | GROUP 5 | 13 | |
|---|---|---|---|---|---|
| driveway | 3 | 75.00% | driveway | 4 | 30.77% |
| carport | 1 | 25.00% | carport | 2 | 15.38% |
| one car garage | 0 | 0.00% | one car garage | 6 | 46.15% |
| two car garage | 0 | 0.00% | two car garage | 1 | 7.69% |

| GROUP 6 | 2 | | GROUP 7 | 7 | |
|---|---|---|---|---|---|
| driveway | 0 | 0.00% | driveway | 3 | 42.86% |
| carport | 0 | 0.00% | carport | 1 | 14.29% |
| one car garage | 2 | 100.00% | one car garage | 2 | 28.57% |
| two car garage | 0 | 0.00% | two car garage | 1 | 14.29% |

| GROUP 8 | 5 | | GROUP 9 | 3 | |
|---|---|---|---|---|---|
| driveway | 2 | 40.00% | driveway | 1 | 33.33% |
| carport | 1 | 20.00% | carport | 1 | 33.33% |
| one car garage | 2 | 40.00% | one car garage | 1 | 33.33% |
| two car garage | 0 | 0.00% | two car garage | 0 | 0.00% |

| GROUP 10 | 2 | | GROUP 11 | 6 | |
|---|---|---|---|---|---|
| driveway | 0 | 0.00% | driveway | 0 | 0.00% |
| carport | 1 | 50.00% | carport | 1 | 16.67% |
| one car garage | 1 | 50.00% | one car garage | 5 | 83.33% |
| two car garage | 0 | 0.00% | two car garage | 0 | 0.00% |

Question 12.6
How many bathrooms would you expect in a $135,000 house?

| ALL GROUPS | 50 | | GROUP 1 | 0 | |
|---|---|---|---|---|---|
| one | 6 | 12.00% | NO RESPONSES FROM THIS GROUP | | |
| one and a half | 26 | 52.00% | | | |
| two | 13 | 26.00% | | | |
| two and a half | 3 | 6.00% | | | |
| three or more | 2 | 4.00% | | | |

| GROUP 2 | 2 | | GROUP 3 | -6 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 1 | 16.67% |
| one and a half | 2 | 100.00% | one and a half | 5 | 83.33% |
| two | 0 | 0.00% | two | 0 | 0.00% |
| two and a half | 0 | 0.00% | two and a half | 0 | 0.00% |
| three or more | 0 | 0.00% | three or more | 0 | 0.00% |

| GROUP 4 | 4 | | GROUP 5 | 13 | |
|---|---|---|---|---|---|
| one | 1 | 25.00% | one | 1 | 7.69% |
| one and a half | 2 | 50.00% | one and a half | 3 | 23.08% |
| two | 0 | 0.00% | two | 7 | 53.85% |
| two and a half | 1 | 25.00% | two and a half | 0 | 0.00% |
| three or more | 0 | 0.00% | three or more | 2 | 15.38% |

| GROUP 6 | 2 | | GROUP 7 | 7 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 0 | 0.00% |
| one and a half | 2 | 100.00% | one and a half | 3 | 42.86% |
| two | 0 | 0.00% | two | 3 | 42.86% |
| two and a half | 0 | 0.00% | two and a half | 1 | 14.29% |
| three or more | 0 | 0.00% | three or more | 0 | 0.00% |

| GROUP 8 | 5 | | GROUP 9 | 3 | |
|---|---|---|---|---|---|
| one | 1 | 20.00% | one | 1 | 33.33% |
| one and a half | 3 | 60.00% | one and a half | 2 | 66.67% |
| two | 0 | 0.00% | two | 0 | 0.00% |
| two and a half | 1 | 20.00% | two and a half | 0 | 0.00% |
| three or more | 0 | 0.00% | three or more | 0 | 0.00% |

| GROUP 10 | 2 | | GROUP 11 | 6 | |
|---|---|---|---|---|---|
| one | 0 | 0.00% | one | 1 | 16.67% |
| one and a half | 1 | 50.00% | one and a half | 3 | 50.00% |
| two | 1 | 50.00% | two | 2 | 33.33% |
| two and a half | 0 | 0.00% | two and a half | 0 | 0.00% |
| three or more | 0 | 0.00% | three or more | 0 | 0.00% |

Question 12.7
What type of basement would you expect in a $135,000 house?

| ALL GROUPS | 45 | | GROUP 1 | 0 | |
|---|---|---|---|---|---|
| none | 14 | 7.22% | NO RESPONSES FROM THIS GROUP | | |
| unfinished | 27 | 13.92% | | | |
| finished | 4 | 2.06% | | | |

| GROUP 2 | 2 | | GROUP 3 | 6 | |
|---|---|---|---|---|---|
| none | 0 | 0.00% | none | 3 | 15.00% |
| unfinished | 2 | 12.50% | unfinished | 3 | 15.00% |
| finished | 0 | 0.00% | finished | 0 | 0.00% |

| GROUP 4 | 4 | | GROUP 5 | 12 | |
|---|---|---|---|---|---|
| none | 2 | 11.11% | none | 2 | 10.00% |
| unfinished | 2 | 11.11% | unfinished | 7 | 35.00% |
| finished | 0 | 0.00% | finished | 3 | 15.00% |

| GROUP 6 | 2 | | GROUP 7 | 7 | |
|---|---|---|---|---|---|
| none | 0 | 0.00% | none | 1 | 5.88% |
| unfinished | 2 | 10.53% | unfinished | 6 | 35.29% |
| finished | 0 | 0.00% | finished | 0 | 0.00% |

| GROUP 8 | 2 | | GROUP 9 | 2 | |
|---|---|---|---|---|---|
| none | 0 | 0.00% | none | 0 | 0.00% |
| unfinished | 1 | 5.00% | unfinished | 1 | 5.56% |
| finished | 1 | 5.00% | finished | 1 | 5.56% |

| GROUP 10 | 2 | | GROUP 11 | 6 | |
|---|---|---|---|---|---|
| none | 1 | 8.33% | none | 3 | 20.00% |
| unfinished | 1 | 8.33% | unfinished | 3 | 20.00% |
| finished | 0 | 0.00% | finished | 0 | 0.00% |

Question 12.8
What type of neighbourhood would you expect for a $135,000 house?

| ALL GROUPS | 50 | | GROUP 1 | 0 | |
|---|---|---|---|---|---|
| urban | 24 | 12.37% | NO RESPONSES FROM THIS GROUP | | |
| suburban | 16 | 8.25% | | | |
| rural | 10 | 5.15% | | | |

| GROUP 2 | 2 | | GROUP 3 | 6 | |
|---|---|---|---|---|---|
| urban | 2 | 12.50% | urban | 4 | 20.00% |
| suburban | 0 | 0.00% | suburban | 2 | 10.00% |
| rural | 0 | 0.00% | rural | 0 | 0.00% |

| GROUP 4 | 4 | | GROUP 5 | 13 | |
|---|---|---|---|---|---|
| urban | 2 | 11.11% | urban | 6 | 30.00% |
| suburban | 0 | 0.00% | suburban | 4 | 20.00% |
| rural | 2 | 11.11% | rural | 3 | 15.00% |

| GROUP 6 | 2 | | GROUP 7 | 7 | |
|---|---|---|---|---|---|
| urban | 0 | 0.00% | urban | 3 | 17.65% |
| suburban | 2 | 10.53% | suburban | 1 | 5.88% |
| rural | 0 | 0.00% | rural | 3 | 17.65% |

| GROUP 8 | 5 | | GROUP 9 | 3 | |
|---|---|---|---|---|---|
| urban | 3 | 15.00% | urban | 1 | 5.56% |
| suburban | 1 | 5.00% | suburban | 2 | 11.11% |
| rural | 1 | 5.00% | rural | 0 | 0.00% |

| GROUP 10 | 2 | | GROUP 11 | 6 | |
|---|---|---|---|---|---|
| urban | 2 | 16.67% | urban | 1 | 6.67% |
| suburban | 0 | 0.00% | suburban | 4 | 26.67% |
| rural | 0 | 0.00% | rural | 1 | 6.67% |

Question 12.9
Do you have a neighbourhood location in mind for a $135,000 home?

| ALL GROUPS | 50 | | GROUP 1 | 0 | |
|---|---|---|---|---|---|
| yes | 17 | 34.00% | NO RESPONSES FROM THIS GROUP | | |
| no | 33 | 66.00% | | | |

| GROUP 2 | 2 | | GROUP 3 | 6 | |
|---|---|---|---|---|---|
| yes | 1 | 50.00% | yes | 3 | 50.00% |
| no | 1 | 50.00% | no | 3 | 50.00% |

| GROUP 4 | 4 | | GROUP 5 | 13 | |
|---|---|---|---|---|---|
| yes | 0 | 0.00% | yes | 4 | 30.77% |
| no | 4 | 100.00% | no | 9 | 69.23% |

| GROUP 6 | 2 | | GROUP 7 | 7 | |
|---|---|---|---|---|---|
| yes | 1 | 50.00% | yes | 3 | 42.86% |
| no | 1 | 50.00% | no | 4 | 57.14% |

| GROUP 8 | 5 | | GROUP 9 | 3 | |
|---|---|---|---|---|---|
| yes | 1 | 20.00% | yes | 0 | 0.00% |
| no | 4 | 80.00% | no | 3 | 100.00% |

| GROUP 10 | 2 | | GROUP 11 | 6 | |
|---|---|---|---|---|---|
| yes | 1 | 50.00% | yes | 3 | 50.00% |
| no | 1 | 50.00% | no | 3 | 50.00% |

Question 13.1
What is your occupation?

| ALL GROUPS | 113 | | GROUP 1 | 12 | |
|---|---|---|---|---|---|
| managerial | 36 | 31.86% | managerial | 6 | 50.00% |
| nat. sci, engin & | 11 | 9.73% | nat. sci, engin & | 3 | 25.00% |
| social sciences | 15 | 13.27% | social sciences | 0 | 0.00% |
| teaching | 6 | 5.31% | teaching | 0 | 0.00% |
| medicine & health | 9 | 7.96% | medicine & health | 0 | 0.00% |
| artistic, literary | 7 | 6.19% | artistic, literary | 0 | 0.00% |
| clerical and relat | 4 | 3.54% | clerical and relat | 1 | 8.33% |
| sales | 6 | 5.31% | sales | 0 | 0.00% |
| service occupation | 11 | 9.73% | service occupation | 0 | 0.00% |
| processing occup. | 3 | 2.65% | processing occup. | 1 | 8.33% |
| product fabricatin | 1 | 0.88% | product fabricatin | 0 | 0.00% |
| construction trade | 3 | 2.65% | construction trade | 1 | 8.33% |
| crafts & equip ope | 1 | 0.88% | crafts & equip ope | 0 | 0.00% |

| GROUP 2 | 13 | | GROUP 3 | 12 | |
|---|---|---|---|---|---|
| managerial | 4 | 30.77% | managerial | 5 | 41.67% |
| nat. sci, engin & | 1 | 7.69% | nat. sci, engin & | 0 | 0.00% |
| social sciences | 3 | 23.08% | social sciences | 1 | 8.33% |
| teaching | 1 | 7.69% | teaching | 0 | 0.00% |
| medicine & health | 2 | 15.38% | medicine & health | 0 | 0.00% |
| artistic, literary | 1 | 7.69% | artistic, literary | 1 | 8.33% |
| clerical and relat | 0 | 0.00% | clerical and relat | 1 | 8.33% |
| sales | 1 | 7.69% | sales | 1 | 8.33% |
| service occupation | 0 | 0.00% | service occupation | 2 | 16.67% |
| processing occup. | 0 | 0.00% | processing occup. | 1 | 8.33% |
| product fabricatin | 0 | 0.00% | product fabricatin | 0 | 0.00% |
| construction trade | 0 | 0.00% | construction trade | 0 | 0.00% |
| crafts & equip ope | 0 | 0.00% | crafts & equip ope | 0 | 0.00% |

| GROUP 4 | 13 | | GROUP 5 | 12 | |
|---|---|---|---|---|---|
| managerial | 2 | 15.38% | managerial | 3 | 25.00% |
| nat. sci, engin & | 1 | 7.69% | nat. sci, engin & | 0 | 0.00% |
| social sciences | 4 | 30.77% | social sciences | 1 | 8.33% |
| teaching | 1 | 7.69% | teaching | 1 | 8.33% |
| medicine & health | 1 | 7.69% | medicine & health | 2 | 16.67% |
| artistic, literary | 0 | 0.00% | artistic, literary | 0 | 0.00% |
| clerical and relat | 1 | 7.69% | clerical and relat | 0 | 0.00% |
| sales | 2 | 15.38% | sales | 1 | 8.33% |
| service occupation | 1 | 7.69% | service occupation | 3 | 25.00% |
| processing occup. | 0 | 0.00% | processing occup. | 1 | 8.33% |
| product fabricatin | 0 | 0.00% | product fabricatin | 0 | 0.00% |
| construction trade | 0 | 0.00% | construction trade | 0 | 0.00% |
| crafts & equip ope | 0 | 0.00% | crafts & equip ope | 0 | 0.00% |

Question 13.1
What is your occupation?


| GROUP 6 | 2 | | GROUP 7 | 8 | |
|---|---|---|---|---|---|
| managerial | 0 | 0.00% | managerial | 5 | 62.50% |
| nat. sci, engin & | 0 | 0.00% | nat. sci, engin & | 0 | 0.00% |
| social sciences | 1 | 50.00% | social sciences | 1 | 12.50% |
| teaching | 0 | 0.00% | teaching | 0 | 0.00% |
| medicine & health | 0 | 0.00% | medicine & health | 0 | 0.00% |
| artistic, literary | 0 | 0.00% | artistic, literary | 1 | 12.50% |
| clerical and relat | 0 | 0.00% | clerical and relat | 0 | 0.00% |
| sales | 0 | 0.00% | sales | 0 | 0.00% |
| service occupation | 0 | 0.00% | service occupation | 1 | 12.50% |
| processing occup. | 0 | 0.00% | processing occup. | 0 | 0.00% |
| product fabricatin | 1 | 50.00% | product fabricatin | 0 | 0.00% |
| construction trade | 0 | 0.00% | construction trade | 0 | 0.00% |
| crafts & equip ope | 0 | 0.00% | crafts & equip ope | 0 | 0.00% |


| GROUP 8 | 14 | | GROUP 9 | 7 | |
|---|---|---|---|---|---|
| managerial | 5 | 35.71% | managerial | 3 | 42.86% |
| nat. sci, engin & | 2 | 14.29% | nat. sci, engin & | 0 | 0.00% |
| social sciences | 2 | 14.29% | social sciences | 0 | 0.00% |
| teaching | 1 | 7.14% | teaching | 0 | 0.00% |
| medicine & health | 2 | 14.29% | medicine & health | 1 | 14.29% |
| artistic, literary | 1 | 7.14% | artistic, literary | 1 | 14.29% |
| clerical and relat | 0 | 0.00% | clerical and relat | 0 | 0.00% |
| sales | 0 | 0.00% | sales | 0 | 0.00% |
| service occupation | 1 | 7.14% | service occupation | 0 | 0.00% |
| processing occup. | 0 | 0.00% | processing occup. | 0 | 0.00% |
| product fabricatin | 0 | 0.00% | product fabricatin | 0 | 0.00% |
| construction trade | 0 | 0.00% | construction trade | 1 | 14.29% |
| crafts & equip ope | 0 | 0.00% | crafts & equip ope | 1 | 14.29% |


| GROUP 10 | 10 | | GROUP 11 | 10 | |
|---|---|---|---|---|---|
| managerial | 1 | 10.00% | managerial | 2 | 20.00% |
| nat. sci, engin & | 2 | 20.00% | nat. sci, engin & | 2 | 20.00% |
| social sciences | 1 | 10.00% | social sciences | 1 | 10.00% |
| teaching | 1 | 10.00% | teaching | 1 | 10.00% |
| medicine & health | 1 | 10.00% | medicine & health | 0 | 0.00% |
| artistic, literary | 2 | 20.00% | artistic, literary | 0 | 0.00% |
| clerical and relat | 0 | 0.00% | clerical and relat | 1 | 10.00% |
| sales | 0 | 0.00% | sales | 1 | 10.00% |
| service occupation | 1 | 10.00% | service occupation | 2 | 20.00% |
| processing occup. | 0 | 0.00% | processing occup. | 0 | 0.00% |
| product fabricatin | 0 | 0.00% | product fabricatin | 0 | 0.00% |
| construction trade | 1 | 10.00% | construction trade | 0 | 0.00% |
| crafts & equip ope | 0 | 0.00% | crafts & equip ope | 0 | 0.00% |

Question 13.2
What is your education level?


| ALL GROUPS | 191 | | | GROUP 1 | 19 | |
|---|---|---|---|---|---|---|
| < Grade 9 | 2 | 1.05% | | < Grade 9 | 1 | 5.26% |
| gr. 9-13 w'out cer | 7 | 3.66% | | gr. 9-13 w'out cer | 2 | 10.53% |
| gr. 9-13 with cert | 27 | 14.14% | | gr. 9-13 with cert | 4 | 21.05% |
| trade cert or dipl | 2 | 1.05% | | trade cert or dipl | 0 | 0.00% |
| non-un dip w't cer | 5 | 2.62% | | non-un dip w't cer | 1 | 5.26% |
| non-un dip with ce | 13 | 6.81% | | non-un dip with ce | 0 | 0.00% |
| univ. without degr | 48 | 25.13% | | univ. without degr | 4 | 21.05% |
| univ. with degree | 87 | 45.55% | | univ. with degree | 7 | 36.84% |

| GROUP 2 | 16 | | | GROUP 3 | 19 | |
|---|---|---|---|---|---|---|
| < Grade 9 | 0 | 0.00% | | < Grade 9 | 0 | 0.00% |
| gr. 9-13 w'out cer | 0 | 0.00% | | gr. 9-13 w'out cer | 0 | 0.00% |
| gr. 9-13 with cert | 0 | 0.00% | | gr. 9-13 with cert | 2 | 10.53% |
| trade cert or dipl | 0 | 0.00% | | trade cert or dipl | 0 | 0.00% |
| non-un dip w't cer | 1 | 6.25% | | non-un dip w't cer | 0 | 0.00% |
| non-un dip with ce | 0 | 0.00% | | non-un dip with ce | 1 | 5.26% |
| univ. without degr | 2 | 12.50% | | univ. without degr | 5 | 26.32% |
| univ. with degree | 13 | 81.25% | | univ. with degree | 11 | 57.89% |

| GROUP 4 | 18 | | | GROUP 5 | 19 | |
|---|---|---|---|---|---|---|
| < Grade 9 | 0 | 0.00% | | < Grade 9 | 0 | 0.00% |
| gr. 9-13 w'out cer | 0 | 0.00% | | gr. 9-13 w'out cer | 0 | 0.00% |
| gr. 9-13 with cert | 0 | 0.00% | | gr. 9-13 with cert | 7 | 36.84% |
| trade cert or dipl | 0 | 0.00% | | trade cert or dipl | 1 | 5.26% |
| non-un dip w't cer | 0 | 0.00% | | non-un dip w't cer | 1 | 5.26% |
| non-un dip with ce | 3 | 16.67% | | non-un dip with ce | 3 | 15.79% |
| univ. without degr | 6 | 33.33% | | univ. without degr | 3 | 15.79% |
| univ. with degree | 9 | 50.00% | | univ. with degree | 4 | 21.05% |

| GROUP 6 | 19 | | | GROUP 7 | 16 | |
|---|---|---|---|---|---|---|
| < Grade 9 | 0 | 0.00% | | < Grade 9 | 0 | 0.00% |
| gr. 9-13 w'out cer | 0 | 0.00% | | gr. 9-13 w'out cer | 1 | 6.25% |
| gr. 9-13 with cert | 7 | 36.84% | | gr. 9-13 with cert | 5 | 31.25% |
| trade cert or dipl | 0 | 0.00% | | trade cert or dipl | 0 | 0.00% |
| non-un dip w't cer | 0 | 0.00% | | non-un dip w't cer | 0 | 0.00% |
| non-un dip with ce | 1 | 5.26% | | non-un dip with ce | 0 | 0.00% |
| univ. without degr | 6 | 31.58% | | univ. without degr | 3 | 18.75% |
| univ. with degree | 5 | 26.32% | | univ. with degree | 7 | 43.75% |

Question 13.2
What is your education level?

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| < Grade 9 | 0 | 0.00% | < Grade 9 | 0 | 0.00% |
| gr. 9-13 w'out cer | 0 | 0.00% | gr. 9-13 w'out cer | 3 | 16.67% |
| gr. 9-13 with cert | 1 | 5.00% | gr. 9-13 with cert | 0 | 0.00% |
| trade cert or dipl | 1 | 5.00% | trade cert or dipl | 0 | 0.00% |
| non-un dip w't cer | 1 | 5.00% | non-un dip w't cer | 0 | 0.00% |
| non-un dip with ce | 3 | 15.00% | non-un dip with ce | 2 | 11.11% |
| univ. without degr | 6 | 30.00% | univ. without degr | 4 | 22.22% |
| univ. with degree | 8 | 40.00% | univ. with degree | 9 | 50.00% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| < Grade 9 | 1 | 8.33% | < Grade 9 | 0 | 0.00% |
| gr. 9-13 w'out cer | 0 | 0.00% | gr. 9-13 w'out cer | 1 | 6.67% |
| gr. 9-13 with cert | 0 | 0.00% | gr. 9-13 with cert | 1 | 6.67% |
| trade cert or dipl | 0 | 0.00% | trade cert or dipl | 0 | 0.00% |
| non-un dip w't cer | 0 | 0.00% | non-un dip w't cer | 1 | 6.67% |
| non-un dip with ce | 0 | 0.00% | non-un dip with ce | 0 | 0.00% |
| univ. without degr | 1 | 8.33% | univ. without degr | 8 | 53.33% |
| univ. with degree | 10 | 83.33% | univ. with degree | 4 | 26.67% |

Question 13.4
Is there anyone in your household who is physically disabled?


| ALL GROUPS | 192 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| no | 175 | 91.15% | no | 15 | 78.95% |
| yes | 17 | 8.85% | yes | 4 | 21.05% |


| GROUP 2 | 15 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| no | 14 | 93.33% | no | 20 | 100.00% |
| yes | 1 | 6.67% | yes | 0 | 0.00% |


| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| no | 17 | 94.44% | no | 18 | 90.00% |
| yes | 1 | 5.56% | yes | 2 | 10.00% |


| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| no | 18 | 94.74% | no | 15 | 88.24% |
| yes | 1 | 5.26% | yes | 2 | 11.76% |


| GROUP 8 | 20 | | GROUP 9 | 17 | |
|---|---|---|---|---|---|
| no | 20 | 100.00% | no | 12 | 70.59% |
| yes | 0 | 0.00% | yes | 5 | 29.41% |


| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| no | 12 | 100.00% | no | 14 | 93.33% |
| yes | 0 | 0.00% | yes | 1 | 6.67% |

```
Question 13.5
How would you describe your income situation?


ALL GROUPS          190            GROUP  1            19

well-off            42    22.11%   well-off            6    31.58%
adequate           119    62.63%   adequate           13    68.42%
insufficient        29    15.26%   insufficient        0     0.00%


GROUP  2             15            GROUP  3            19

well-off             5    33.33%   well-off            3    15.79%
adequate             9    60.00%   adequate           12    63.16%
insufficient         1     6.67%   insufficient        4    21.05%


GROUP  4             18            GROUP  5            20

well-off             6    33.33%   well-off            2    10.00%
adequate            10    55.56%   adequate           10    50.00%
insufficient         2    11.11%   insufficient        8    40.00%


GROUP  6             19            GROUP  7            17

well-off             0     0.00%   well-off            4    23.53%
adequate            18    94.74%   adequate           10    58.82%
insufficient         1     5.26%   insufficient        3    17.65%


GROUP  8             20            GROUP  9            16

well-off             5    25.00%   well-off            1     6.25%
adequate            12    60.00%   adequate           11    68.75%
insufficient         3    15.00%   insufficient        4    25.00%


GROUP 10             12            GROUP 11            15

well-off             6    50.00%   well-off            4    26.67%
adequate             5    41.67%   adequate            9    60.00%
insufficient         1     8.33%   insufficient        2    13.33%
```

Question 13.6
What is your approximate total household income?

| ALL GROUPS | 157 | | GROUP 1 | 14 | |
|---|---|---|---|---|---|
| < $10,000 | 8 | 5.10% | < $10,000 | 0 | 0.00% |
| 10,000-20,000 | 27 | 17.20% | 10,000-20,000 | 0 | 0.00% |
| 20,000-30,000 | 25 | 15.92% | 20,000-30,000 | 1 | 7.14% |
| 30,000-40,000 | 18 | 11.46% | 30,000-40,000 | 1 | 7.14% |
| 40,000-50,000 | 22 | 14.01% | 40,000-50,000 | 2 | 14.29% |
| > 50,000 | 57 | 36.31% | > 50,000 | 10 | 71.43% |

| GROUP 2 | 11 | | GROUP 3 | 17 | |
|---|---|---|---|---|---|
| < $10,000 | 0 | 0.00% | < $10,000 | 2 | 11.76% |
| 10,000-20,000 | 1 | 9.09% | 10,000-20,000 | 6 | 35.29% |
| 20,000-30,000 | 0 | 0.00% | 20,000-30,000 | 2 | 11.76% |
| 30,000-40,000 | 2 | 18.18% | 30,000-40,000 | 3 | 17.65% |
| 40,000-50,000 | 1 | 9.09% | 40,000-50,000 | 1 | 5.88% |
| > 50,000 | 7 | 63.64% | > 50,000 | 3 | 17.65% |

| GROUP 4 | 18 | | GROUP 5 | 15 | |
|---|---|---|---|---|---|
| < $10,000 | 0 | 0.00% | < $10,000 | 1 | 6.67% |
| 10,000-20,000 | 3 | 16.67% | 10,000-20,000 | 6 | 40.00% |
| 20,000-30,000 | 0 | 0.00% | 20,000-30,000 | 0 | 0.00% |
| 30,000-40,000 | 3 | 16.67% | 30,000-40,000 | 0 | 0.00% |
| 40,000-50,000 | 6 | 33.33% | 40,000-50,000 | 4 | 26.67% |
| > 50,000 | 6 | 33.33% | > 50,000 | 4 | 26.67% |

| GROUP 6 | 11 | | GROUP 7 | 12 | |
|---|---|---|---|---|---|
| < $10,000 | 1 | 9.09% | < $10,000 | 1 | 8.33% |
| 10,000-20,000 | 3 | 27.27% | 10,000-20,000 | 1 | 8.33% |
| 20,000-30,000 | 3 | 27.27% | 20,000-30,000 | 2 | 16.67% |
| 30,000-40,000 | 1 | 9.09% | 30,000-40,000 | 2 | 16.67% |
| 40,000-50,000 | 0 | 0.00% | 40,000-50,000 | 2 | 16.67% |
| > 50,000 | 3 | 27.27% | > 50,000 | 4 | 33.33% |

| GROUP 8 | 17 | | GROUP 9 | 16 | |
|---|---|---|---|---|---|
| < $10,000 | 1 | 5.88% | < $10,000 | 2 | 12.50% |
| 10,000-20,000 | 2 | 11.76% | 10,000-20,000 | 3 | 18.75% |
| 20,000-30,000 | 4 | 23.53% | 20,000-30,000 | 7 | 43.75% |
| 30,000-40,000 | 2 | 11.76% | 30,000-40,000 | 1 | 6.25% |
| 40,000-50,000 | 1 | 5.88% | 40,000-50,000 | 1 | 6.25% |
| > 50,000 | 7 | 41.18% | > 50,000 | 2 | 12.50% |

| GROUP 10 | 12 | | GROUP 11 | 14 | |
|---|---|---|---|---|---|
| < $10,000 | 0 | 0.00% | < $10,000 | 0 | 0.00% |
| 10,000-20,000 | 0 | 0.00% | 10,000-20,000 | 2 | 14.29% |
| 20,000-30,000 | 1 | 8.33% | 20,000-30,000 | 5 | 35.71% |
| 30,000-40,000 | 1 | 8.33% | 30,000-40,000 | 2 | 14.29% |
| 40,000-50,000 | 0 | 0.00% | 40,000-50,000 | 4 | 28.57% |
| > 50,000 | 10 | 83.33% | > 50,000 | 1 | 7.14% |

Question 15
What is the respondent's current housing type?

| ALL GROUPS | 193 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| single family | 43 | 22.28% | single family | 19 | 100.00% |
| semi-detached | 5 | 2.59% | semi-detached | 0 | 0.00% |
| row/townhouse | 24 | 12.44% | row/townhouse | 0 | 0.00% |
| low rise apt/condo | 50 | 25.91% | low rise apt/condo | 0 | 0.00% |
| high rise apt/cond | 71 | 36.79% | high rise apt/cond | 0 | 0.00% |

| GROUP 2 | 16 | | GROUP 3 | 19 | |
|---|---|---|---|---|---|
| single family | 12 | 75.00% | single family | 0 | 0.00% |
| semi-detached | 3 | 18.75% | semi-detached | 0 | 0.00% |
| row/townhouse | 0 | 0.00% | row/townhouse | 5 | 26.32% |
| low rise apt/condo | 1 | 6.25% | low rise apt/condo | 14 | 73.68% |
| high rise apt/cond | 0 | 0.00% | high rise apt/cond | 0 | 0.00% |

| GROUP 4 | 18 | | GROUP 5 | 20 | |
|---|---|---|---|---|---|
| single family | 1 | 5.56% | single family | 0 | 0.00% |
| semi-detached | 1 | 5.56% | semi-detached | 0 | 0.00% |
| row/townhouse | 5 | 27.78% | row/townhouse | 0 | 0.00% |
| low rise apt/condo | 11 | 61.11% | low rise apt/condo | 0 | 0.00% |
| high rise apt/cond | 0 | 0.00% | high rise apt/cond | 20 | 100.00% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| single family | 0 | 0.00% | single family | 0 | 0.00% |
| semi-detached | 0 | 0.00% | semi-detached | 0 | 0.00% |
| row/townhouse | 0 | 0.00% | row/townhouse | 11 | 64.71% |
| low rise apt/condo | 0 | 0.00% | low rise apt/condo | 6 | 35.29% |
| high rise apt/cond | 19 | 100.00% | high rise apt/cond | 0 | 0.00% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| single family | 0 | 0.00% | single family | 0 | 0.00% |
| semi-detached | 1 | 5.00% | semi-detached | 0 | 0.00% |
| row/townhouse | 2 | 10.00% | row/townhouse | 0 | 0.00% |
| low rise apt/condo | 17 | 85.00% | low rise apt/condo | 1 | 5.56% |
| high rise apt/cond | 0 | 0.00% | high rise apt/cond | 17 | 94.44% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| single family | 11 | 91.67% | single family | 0 | 0.00% |
| semi-detached | 0 | 0.00% | semi-detached | 0 | 0.00% |
| row/townhouse | 1 | 8.33% | row/townhouse | 0 | 0.00% |
| low rise apt/condo | 0 | 0.00% | low rise apt/condo | 0 | 0.00% |
| high rise apt/cond | 0 | 0.00% | high rise apt/cond | 15 | 100.00% |

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Question 17.1
Sex of the respondent

| ALL GROUPS | 189 | | GROUP 1 | 19 | |
|---|---|---|---|---|---|
| male | 92 | 48.68% | male | 8 | 42.11% |
| female | 97 | 51.32% | female | 11 | 57.89% |

| GROUP 2 | 16 | | GROUP 3 | 20 | |
|---|---|---|---|---|---|
| male | 6 | 37.50% | male | 10 | 50.00% |
| female | 10 | 62.50% | female | 10 | 50.00% |

| GROUP 4 | 18 | | GROUP 5 | 15 | |
|---|---|---|---|---|---|
| male | 7 | 38.89% | male | 8 | 53.33% |
| female | 11 | 61.11% | female | 7 | 46.67% |

| GROUP 6 | 19 | | GROUP 7 | 17 | |
|---|---|---|---|---|---|
| male | 7 | 36.84% | male | 11 | 64.71% |
| female | 12 | 63.16% | female | 6 | 35.29% |

| GROUP 8 | 20 | | GROUP 9 | 18 | |
|---|---|---|---|---|---|
| male | 12 | 60.00% | male | 8 | 44.44% |
| female | 8 | 40.00% | female | 10 | 55.56% |

| GROUP 10 | 12 | | GROUP 11 | 15 | |
|---|---|---|---|---|---|
| male | 8 | 66.67% | male | 7 | 46.67% |
| female | 4 | 33.33% | female | 8 | 53.33% |

Question 18
Is the respondent a student?

| ALL GROUPS | | 194 | | GROUP 1 | | 19 | |
|---|---|---|---|---|---|---|---|
| is a student | | 56 | 28.87% | is a student | | 1 | 5.26% |
| not stud. or unspec. | | 138 | 71.13% | not stud. or unspec. | | 18 | 94.74% |

| GROUP 2 | | 16 | | GROUP 3 | | 20 | |
|---|---|---|---|---|---|---|---|
| is a student | | 2 | 12.50% | is a student | | 10 | 50.00% |
| not stud. or unspec. | | 14 | 87.50% | not stud. or unspec. | | 10 | 50.00% |

| GROUP 4 | | 18 | | GROUP 5 | | 20 | |
|---|---|---|---|---|---|---|---|
| is a student | | 6 | 33.33% | is a student | | 5 | 25.00% |
| not stud. or unspec. | | 12 | 66.67% | not stud. or unspec. | | 15 | 75.00% |

| GROUP 6 | | 19 | | GROUP 7 | | 17 | |
|---|---|---|---|---|---|---|---|
| is a student | | 9 | 47.37% | is a student | | 4 | 23.53% |
| not stud. or unspec. | | 10 | 52.63% | not stud. or unspec. | | 13 | 76.47% |

| GROUP 8 | | 20 | | GROUP 9 | | 18 | |
|---|---|---|---|---|---|---|---|
| is a student | | 9 | 45.00% | is a student | | 2 | 11.11% |
| not stud. or unspec. | | 11 | 55.00% | not stud. or unspec. | | 16 | 88.89% |

| GROUP 10 | | 12 | | GROUP 11 | | 15 | |
|---|---|---|---|---|---|---|---|
| is a student | | 0 | 0.00% | is a student | | 8 | 53.33% |
| not stud. or unspec. | | 12 | 100.00% | not stud. or unspec. | | 7 | 46.67% |