ELDERLY ACCESSIBILITY:

SHOULD TRANSPORT AND MOBILITY BE A MAJOR FACTOR IN PLANNING SENIOR HOUSING FACILITIES?

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ABSTRACT

What the following study wishes to reveal to Geographers and Gerontologists, is the extent to which the location of the elderly and the location of services, are accessible to one another.

It is the author's understanding that the relative location of elderly housing facilities, oriented towards independent forms of housing options (Group 1; Independent Living), facilitate in maintaining maximum physical community interaction and social relations.

Concern over elderly accessibility relative to the location of elderly housing facilities within urban centres are expressed. Therefore, a comparative case study between three senior housing facilities in Hamilton Ontario was formulated to determine if one area of Hamilton is indeed more accessible in terms of services used. Downtown, East End and Mountain locational constructs were used as research sites.

A questionnaire, the 'Elderly Accessibility Questionnaire' was developed in order to focus upon the demand side of locational accessibility issues concerning accessibility to (stereotypical) services and housing location.

Descriptive statistics were used to analyze the data.

No specific area was determined to be more accessible to seniors, however, perceptions concerning a senior's immediate environment and neighbouring environments were observed to be distinctive between area's. Mountain seniors perceived themselves as the most accessible relative to the Downtown and East End locations.

Various access to services was examined. Staple and stereotypical services as the grocery store, drug store, bank, doctor's office or clinic, religious centre, recreational centre, library, places to eat out, and parks were analyzed with respect to accessibility and residential location. Staple services as grocery stores and drug stores were frequented most often by means of walking, and distances to such facilities were perceived to be less than a one mile journey according to seniors. Bus transportation was also observed to be highly utilized by many seniors.

Transportation and personal mobility of the elderly, in terms of accessibility to services used, should therefore be consciously considered, if not mandatory legislation in the planning of senior housing facilities.

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Finally, I would like to thank my brother Mark and the accompanying FUNCTIONAL DISPAIRITY, for not Wasting My Time.

THIS THESIS IS DEDICATED TO ALL THOSE WHO WERE TOO BLIND TO SEE BEYOND THE FACADE AND INTO THE SOUL OF AN ALTRUISTIC INDIVIDUAL; THERE IS LIFE AND LOVE IN THE CLAY OF MAN.

MAC'S PSYCHO PATH -- 5150

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PART I. INTRODUCTION

INTRODUCTION TO THE SOCIAL ISSUES OF: HOUSING THE ELDERLY

"What does housing mean to the elderly? Aside from [one's] spouse, housing is probably the single most important element in the life of an older person."[1] Intuitive as it may seem, people need a place to live; four walls and a roof, it's that simple. However, the issue of how to deal with the elderly housing crisis, is less than elementary. Primarily, there exists a "... strong desire for independent living [which] is an established pattern of life in our culture."[2] When a member of our society 'comes to age,' or becomes a senior,[a] priorities with respect to housing change. The probability of mobility, for a majority of the elderly, to new or alternative housing facilities, increases with age. Therefore, it is necessary for society to prepare for the barrage of housing changes in the near future. A housing crisis for the elderly will result from an increased demand for senior housing facilities, in association with an inadequate and deficient supply of senior housing facilities. In order to be prepared to face the housing crisis, certain questions must be addressed such as: Where do we 'house' the elderly? Where do the elderly go? How do they get there, and when they get there then what? How do we deal with the issues of social housing accessibility, not only to services, but to the physical and social environment? The above questions

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[a] "What was law became fact; old age started at 65"
Botwinick J., Aging and Behaviour. Springer Publishers, New York, 1984. pg. 2.

serve as a platform from which to address, criticize, and offer solutions to the social issues of elderly housing.

DEMOGRAPHICS

In dealing with the elderly, certain characteristics and features, of this specific age group, shall be illustrated. Satya Brink of the Canada Mortgage and Housing Corporation (CMHC) Planning Division, indicates that, 78 percent of Canadian seniors live in urban centres, 40 percent of which live in urban centres of populations greater than 500,000, as of 1981. It should be noted that 81 percent of all seniors over the age of 80 live in urban centres. Brink further states that 518,000 seniors live in rural Canadian settings.[3]

Irrefutably, a large percentage of Canadian seniors live in urban centres. A case study in Great Britain by Robin Means in 1988, in support of Brink's findings, discovered that the elderly

> ... are making a judgement that newly-built sheltered housing schemes near the city centre will meet their housing, social and health care needs more effectively.[4]

Housing needs of the elderly are consequently perceived, by seniors, to be 'taken care of' within the inner city. An American analysis by Struyk in 1981 supports this stance, claiming that, with respect to basic structural deficiencies in the home, the frequency of 'defectiveness' in metropolitan homes occupied by the elderly, is significantly less than homes in non-metropolitan areas occupied by the elderly.[5]

HOUSING NEEDS

Brink outlines five housing needs of the elderly: the need for affordable shelter, locational requirements, the need for support services, the need for health care services, and the need for specially designed housing. The most important distinction that Brink makes, is that of locational requirements. The proximity of the elderly to services creates a 'functional location,' and one in which seniors will obtain a high degree of life-satisfaction. Gloria Gutman supports the concept of a 'functional location' in her study of personal and intermediate care facilities in Vancouver, British Columbia. She suggests that:

> ... a wide range of services must be made available when people need them; they ought to be accessible, preferably in geographical proximity to the place of residence, and they should be acceptable to users.

Gutman further suggests that:

> ... the suitability of the residential milieu for the aged, outside of the residence, is contingent upon the availability and accessibility of life-sustaining and life-enriching social services which can enable the elderly to live in comfort and dignity.[6]

Once again, in order for seniors to obtain a high degree of utility or life-satisfaction, with respect to the housing environment, the milieu must be 'functional.'

REASONS FOR HOUSING NEEDS

New housing needs reflecting architectural design; the physical landscape; proximity to facilities, services, family,

friends, and or caregivers constitute basic requirements needed in generating 'functional environments' for the elderly. The question therefore arise, what prompts these new housing needs? In a landmark paper by Eugene Litwak and Charles F. Longino Jr., Migration Patterns Among the Elderly: A Developmental Perspective,[7] it was proposed that the migration patterns, or residential adjustment, of elderly people can be categorized into three stages. Litwak and Longino's three stage model suggests an association between reasons for individual senior mobility and a changing environment. Health status and the need of assistance following retirement, is the basis of this model. Litwak and Longino formally hypothesized:

> ... that there are three types of moves that a person might make after retirement: 1) an immediate post-retirement move, primarily for amenity reasons; 2) a move to be near a primary caretaker when the person becomes moderately disabled and can no longer manage without help; and 3) a final move to an institutional setting when the caretaker can no longer handle the burden.[8]

It is interesting to note that Litwak and Longino's model resembles Peck's Old Age stages of psycho-social development. Similarities to Peck's stages coincide with: ego differentiation vs. work-role preoccupation corresponding to retirement; body transcendence vs. body preoccupation corresponding to a conscious and focused need to be near an accessible caretaker, and; ego transcendence vs. ego preoccupation corresponding to institutionalization due to physical or mental deterioration.[9] Litwak and Longino's three

stage model, and Pecks old age stages of psycho-social development, relate to social housing needs of the elderly because a change in status, with respect to the self, will determine the type of housing needed.[b]

HOUSING TYPES

There exists three major types or distinctions of housing, offering different levels of support services: Independent Living, Supported Independent Living, and Dependent Living. The housing options available to elderly Canadians shall be exemplified with the aid of data obtained from Brink.

It is estimated that at present, 2,100,700 Canadians vie for the first housing option, Group 1, Independent Living. This option is made available to those elderly who maintain an independent household (owned or rented), autonomous of support services. Examples of these types of units are: single family homes; rental apartments; townhouses; housing co-operatives; mobile homes; and units specifically designed for the elderly as senior citizen homes, and retirement communities.[10]

Group 2, Supported Independent Living, house approximately 140,420 elderly Canadians. In order to live independently, this type of housing option is made available to those seniors acquiring support services or special

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b Excluding the concept of affordability.

architectural designs in relation to their housing units. Housing units in this case may or may not be self contained and services may or may not be provided by family members or social services. Housekeeping and assistance with meal preparation are the major services provided. Examples of these types of units are: single family homes with home care from family, project or community services; rental apartment or townhouses with home care from family, project or community services; condominiums with home care from family, project or community services; co-operatives with home care from family, project or community services - mobile homes with home care from family, project or community services; live-in housekeeper in dwelling; home sharing, with service exchange; satellite units to nursing homes; granny flats; the home of family or relatives; boarding houses; retirement hotels/hostels; homes for the aged; group homes for the aged; and adult foster care.[11]

Group 3, Dependant Living, houses approximately 158,880 elderly Canadians. This housing option is characterized by accommodations specifically designed for those who are highly impaired, either physically or mentally. Examples of these housing options, usually regarded as institutions, are: nursing homes; extended care nursing homes; chronic care hospitalities; and geriatric units in hospitals.[12]

Housing options are particularly more important in the future due to population predictions with respect to the

Canadian age composition. Between 1971 and 1981, Canada's age group 65 and over grew by 35%. Predictions have been made claiming that the proportion of the Canadian age group, 65 and over, will grow to between 14 and 17% of the total Canadian population by the year 2030.[13] This undoubtedly will place new demands on the country. The social ramifications of the effectiveness of the above housing options, will heavily depend not only on the elderly's accessibility to theses options, but also to the elderly's individual, and cumulative life satisfaction derived from all three housing environments (life satisfaction will however, vary from person to person). Having large numbers of the aged with severe physical impairments living 'at large' in the community, rather than living in long term care facilities, is just one example of a social housing concern, as proposed by Meyer and Cromely.[14]

Assessing Litwak and Longino's three stage model against other literature, with respect to housing options, it is observed that the majority of the literature supports their three stage model of residential adjustment. However, a minority view a move due to housing needs as unnecessary. Rather, the present dwelling unit may be modified or adjusted to accommodate declining ability, mobility, and accessibility through subsidies, such as the Residential Rehabilitation Assistance Program (RRAP), which few elderly are knowledgable about. Jean-Remi Champagne, on behalf of the Institute for Research in Construction for the National Research Council of

Canada, adopted the view that it is cost effective (and beneficial to future occupants) to adopt and modify the present dwelling units of seniors. Modifications were made in order to accommodate for declining abilities. Case studies by Champagne indicate the absolute cost for retrofitting units in new housing developments, specifically for the elderly, costs less than previously anticipated.[15] Benefits of the neighbourhood surroundings are the underlying assumptions of Champagne's premise. This correlates to three of Novak's (1988) conclusions. One, that elderly members of our society enjoy having control in their environment. Two, seniors have the ability to relocate depending upon their housing needs. Corresponding to their perceived sense of security and freedom, a senior's life-satisfaction is related to their individual ability and environmental demand. Finally, most older people prefer to reside in the same 'type' of housing they currently occupy.[16]

HOUSING FACILITIES RELATIVE TO SERVICES

The consideration of housing facilities for seniors must be made in conjunction to services. This is done in order to understand the functional societal needs of the elderly with respect to residence (regardless if the service is obtained internally or externally from the housing facility). In order to promote the highest life satisfaction, senior housing facilities must be organized, regardless of facility type.

Lowy (1970) insisted that services, available to not only the elderly but to the entire populace, should provide: economic, socialization, and social control functions; social participation, and mutual support functions based on 'human needs,' and a typology of fulfilling 'societal requisites.' Lowy explains that services, must be made available, accessible and acceptable in order to be useful, and in order to obtain high levels of utility.[17] The physical location of the housing network (if services are not internally supplied), then plays a crucial role in the allocation of resources and services.

ATTRIBUTES OF THE RESIDENTIAL HOUSING SEARCH

Stephen Golant, in his paper, "Housing and Transportation Problems of the Urban Elderly" was able to determine both the housing and transportation needs of the urban elderly. Elderly persons usually set goals or parameters for themselves, in searching for residential settings. Golant identifies four goals which the elderly identify as being attributes in their future residential setting: independence, security, environmental mastery, and positive self-image.[18] Independence, reflects a senior's desire to maximize autonomy. Security, exists in the form of economic, physical, psychological or emotional security. The senior wishes to maximize his or her sense of security to remove any anxiety a facility or location may radiate. Environmental Mastery,

refers to the ability of the individual to control and involve themselves with the activities in their immediate environment. Positive Self-Image, would be assessed in comparison to neighbourhood settings, and some form of tangible evidence concerning one's own success; an evaluation of ones self-worth. Golant then proceeds to specify seven categories of housing needs and problems that society (and the individual) must consider when either designing, planning or applying for elderly residence, at a particular urban location. **Spatial Accessibility**, is one of the most important attributes of the residential setting, bringing forth the concepts of:

> ... inexpensive, easy and convenient spatial access by automobile, mass transit, or by walking to facilities, services, or persons. [19]

demonstrating once again the significance of a well situated urban location. **Architectural Design of the Dwelling Unit,**[c] is composed of sub-categories dealing with size, windows, noise insulation, heating and ventilating systems, safety, social space and architectural barriers [What follows is not directly related to the proposed research concerning elderly accessibility. However, for purposes of understanding the difficulties that the research sample must deal with on a daily basis, the underlying concepts are therefore applicable]. Unit size is important to an individual who has made the transition from middle age to elderly. An

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[c] This category of design is best exemplified with respect to multi-level, multi-unit accommodations for seniors.

appropriate reduction in size from the previous dwelling is common, however, sufficient space is needed to place items of value (example: furniture, china etc.), and to entertain friends and family. Due to the elderly's deteriorating vision, adequate light is needed throughout the household, and in order to provide a form of recreation or entertainment (visually) for those less mobile. Noise insulation is necessary because the elderly experience increasing hearing loss as they age, which in turn causes the volumes of certain appliances to increase. Increased noise emanating from other residential units may be experienced, and is irritating since the hearing aid does not discriminate against 'primary' noise or background noise. Insulation also helps reduce street level noise. Seniors generally fear for their physical Safety due to their increased frailty. Social Space is needed to increase interaction among the already social isolated elderly. Common rooms, lounges, gardening plots, and laundry facilities are comparable forms allowing for senior interaction. Eliminating Architectural Barriers for the elderly may take the form of reducing right angle turns, widening doors, slowing elevator rates, and ease of opening doors and windows. **Dwelling Unit Maintenance and Cost** becomes more of a liability due to the lack of funds of the elderly.

ISSUES CONCERNING ACCESSIBILITY AND HOUSING

With respect to Spatial Accessibility, Golant recognizes

four additional categories linked to the issue of accessibility. **Availability of Facilities and Services.** Seniors often rank the presence of shopping and medical facilities as important, and thus highly frequented. Since transportation restricts access to certain facilities, and lower quantity of goods are consumed, lower quality of consumption occurs. The **Availability of Special Services** according to Golant, are at present poorly developed and exist in insufficient numbers to properly service the demand. **The Social Support System** occurs in the forms of family and friends who maintain the social contact with the elderly. These social supports often offer comfort, companionship, caregiving, and financial aid to individuals who often feel isolated in certain housing facilities. The **General Character of the Neighbourhood Setting** focus' on the image the familiar neighbourhood (the external physical environment) promotes. The best neighbourhood setting would be one in which the elderly would feel the most comfortable and secure in. Golant's interpretation of housing needs is not an isolated incident.

Lorraine G. Hiatt, supports Golant's views concerning housing needs which need to be addressed. Hiatt's approach differs somewhat from Golant's by outlining what she terms functional and dysfunctional designs for older people.[20] Their two approaches parallel each other, however Hiatt goes into depth concerning colour within senior facilities, which

is not relevant to the proposed research concerning elderly accessibility. In addressing the issue of decor, within a senior facility, it should be remembered that the decor is something that the seniors have to deal with on a daily basis, and not an aesthetically pleasing commodity for visitors to use as a conversational piece. Prior to discussing the social implications of political influences on elderly establishments, Golant examines an interesting yet 'untouched' issue. Critical Walking Distances[d] between the residence and service facilities (eg. bank, bus stop, grocery store etc.) has economic, social, and physical implications. Critical distances may be taken into account during the planning stages of either senior facilities, or services. By acknowledging the distances between frequented facilities, and the residential unit, optimum distance may be obtained, reducing mobility costs (both monetarily, and durationally) along with increasing accessibility to services and perhaps increasing life satisfaction. The possibilities of social improvements are vast when critical distances are taken into account.

POLITICAL INFLUENCES ON ELDERLY HOUSING

Politics influences the social aspects of elderly housing. Governments may support housing projects in the forms of grants, subsidies, and even tax breaks. In America,

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[d] Information originally obtained by P.L Neibanck. The Elderly in Older Urban Areas. (Philadelphia: Institute for Environmental Studies, University of Pennsylvania, 1965), p. 64. The author was unable to acquire Neibanck's paper in time for the printing of this document.

according to Golant, the elderly occupy mostly public housing. No true housing legislation specifically aimed at elderly housing exists. In the case of Hamilton Ontario, there exists no rules or regulations governing the location of housing (relative to other facilities) specifically designed for the elderly. Elderly housing usually falls under low rent public housing programmes, and merely incorporates elderly into its North American schema.

CONCLUSIONS CONCERNING ELDERLY HOUSING FACILITIES

Conclusions may presently be drawn with respect to the elderly housing issue. Overall, it has been identified that locational constraints and choice, with respect to dwelling type, play a major role in housing the elderly. Life satisfaction is derived from properly situated facilities possessing amenities which increase residential utility. Gloria Gutman's case study of residential and life satisfaction of the elderly in Vancouver institutions, concludes that location is important, for a variety of housing options, because the:

> ... suitability of a residence is enhanced by its being sited in a well serviced area even if not all residents do interact frequently with the surrounding area. Even for shut-ins, location is important if it affords a pleasant view and the stimulation o observable activity in the immediate area. The right mix of local services and the absence of topographical and/or perceptual barriers could act to draw more people out of their rooms and institutions with the likely prospect of increased life satisfaction.[21]

Education concerning the true needs of the elderly is required for those making policy decisions concerning the elderly. Great care must also be taken in the relocation of elders into the different housing accommodations. Certain housing accommodations or locations may not coincide to all of the desired, or needed senior services within the community.[22]

RECOMMENDATIONS

Recommendations to alleviate the problems that elderly housing creates, take three basic forms; locational, architectural, and service recommendations. As previously mentioned, new facilities must, due to their proximity to facilities, have or create a solid interaction with the community. Access to transportation in order to minimize locational constraints must also be maximized. Architectural recommendation appear in the form of physical improvements to the residential units. Improvements manifest themselves in the form of fair gradients, more open spaces, easy access into and out of residential units, elevators, and facilities (taking into account those dependant on wheelchairs and 'mobies' -- motorized wheelchairs). Improved services to the seniors, and an enhanced knowledge of services, and availability of such services, as housekeeping, meals on wheels etc., is necessary in order to diminish social isolation and improve the elderly's self-worth. Housing issues of the elderly may never be ratified in the near

future, but with increasing knowledge, and understanding of the subject, will we then be able to better accommodate this growing sector of the population.

DEFINING ACCESSIBILITY: A THEORETICAL PERSPECTIVE

D.R. Ingram from the Department of Geography at McMaster University in Hamilton Ontario, expanded upon the concept of accessibility. In his search for an operational form, Ingram defined accessibility as

> ... the inherent characteristic (or advantage) of a place with respect to overcoming some form of spatially operating source of friction (for example, time and/or distance).[23]

The application of Ingram's concept of accessibility in the context of Hamilton is beyond the scope and focus of this research paper, however, some useful conclusions may be extracted. With respect to Hamilton (the area under present examination), Ingram concluded that the

> ... point of highest integral accessibility is not located at, or near, the central business district (the centre of the Hamilton CBD corresponds approximately to the intersection of King and James Streets); rather, it is situated about 1 1/4 miles to the east.[24]

This conclusion was based on Integral Accessibility with respect to average rectangular average distance. Integral Accessibility is defined "... for a given point as the degree of interconnexion [sic] with all other points on the same surface."[25] Ingram also outlined areas which were not very accessible, relative to other areas of Hamilton. A major characteristic of the city of Hamilton is the Niagara

Escarpment, which, as Ingram indicates, hinders accessibility within the city. These basic conclusions will be referred to in the analysis of the data, and commented upon accordingly if disparities among regions exist.

SUPPORTING EVIDENCE FOR RESEARCH CONCERNING ELDERLY ACCESSIBILITY

In the proposed research concerning Elderly Accessibility, the examination of the elderly opting for Independent Living arrangements, in public rental apartments under the jurisdiction of the Hamilton-Wentworth Housing Authority (HWHA), will be examined. With respect to the environments of the elderly, M. Powell Lawton has done extensive research on this aspect of the elderly. In his 1980 book, Environment and Aging, he discusses aspects of the elderly environment at a macro, micro, and community level. Lawton however, fails to deal with the importance of the relative urban location of senior housing facilities, in relation to other services frequented or utilized by seniors. Lawton believes that the

> ... knowledge of how older people are distributed over states or sizes of communities is of intrinsic interest from a descriptive point of view, but one may wonder whether such statistics are of any greater significance than triva-quiz items. Clearly demographers, geographers, sociologists, planners and people in many other disciplines have found deeper meaning in such head counts.[26]

The following research, and data obtained through the proposed research concerning elderly accessibility, shall refute

Lawton's claims.

'TERRITORIAL JUSTICE': THE SEARCH FOR 'FUNCTIONAL LOCATIONS'

The difficulty in refuting Lawton's claims, is due to the lack (or non-existent) of specific research concerning elderly accessibility with respect to the geographical distribution and placement of senior housing facilities within urban centres. Taylor and Todd (1982) also disagree with Lawton. They state that a

> ... geographers' interests in territorial justice in resource allocation and service delivery and with the location of housing, health, social and transport services are certainly appropriate in relation to a major user group, old people.[27]

Geographers need to develop their understanding of the housing demands of the elderly. As Taylor and Todd reconfirm

> ... the need to locate housing in relation to other services, we have little detailed knowledge of spatial aspects of housing, though the subject is touched on in some mobility research. Sensible siting of housing is a major policy issue and merits closer examination. Geographers might ask: to what extent can well-sited housing contribute to the maintenance of an independent lifestyle for the elderly? Does badly sited housing precipitate dependency and the decision to become housebound? [And] Are house-building trends influencing the location of the elderly?[28]

Subsequently, Greenberg provides an eloquent explanation in support of researching relative urban housing locations for the elderly. Greenberg explains that

> ... age does not obviate the desire or necessity to go shopping, see the doctor, visit friends, and undertake other everyday activities--but it may alter the method and frequency with they are done. It is important to appreciate how far the elderly

> are distinctive and to reflect their special needs in planning the location of housing and services for them, if the elderly are to be helped to live independently for as long as possible.[29]

What benefit, if any does location have upon elderly housing facilities? Greenberg, in support of Taylor and Todd's sentiments, maintained that

> ... Housing likely to be occupied by the elderly should have good access to centres containing the facilities they visit frequently. In urban areas these should be within short walking distance ... [and] ... should be linked by convenient public transport. If health, social, or recreational facilities are located in or near these centres, this may reduce the number of journeys the elderly have to make and possibly help them to join in social and leisure activities from which ... they might otherwise be excluded.[30]

Once again, location, with respect to accessibility cannot be stressed enough as a factor in the planning of senior housing facilities.

PREAMBLE TO RESEARCH

In conclusion, it is the author's understanding that the relative location of elderly housing facilities, oriented towards independent forms of housing options (Group 1; Independent Living), facilitate in maintaining maximum physical community interaction and social relations.

No concrete research, as of this time, has been found to support or refute this authors concern over elderly accessibility relative to the location of elderly housing facilities in urban centres. Therefore, a comparative case study between three senior housing facilities in Hamilton

Ontario was formulated.

RESEARCH OBJECTIVES

What the following study wishes to reveal to Geographers and Gerontologists, is the extent to which the location of the elderly and the location of services, are accessible to one another. Basing conjecture on conceivable problems of social isolation, increased dependence, and negative health effects, **the purpose of this research is to determine whether it is possible that transport and mobility corresponding to demand related access (to stereotypical services used by seniors), and access pertaining to use, be considered in the location of housing facilities for the elderly.** The investigation will focus on the elderly's use of services and their resulting satisfaction from such services. Approaches used in this examination rely on the understanding of four components: One, the understanding of elderly satisfaction of location with respect to frequented facilities; two, an understanding of elderly utilization of those facilities and services; three, an understanding of elderly dependence on their individual mobility, and possibly a dependence on someone else's mobility; and finally, an understanding of elderly **types, uses, and methods of** transport. A questionnaire, the 'Elderly Accessibility Questionnaire' [Appendix G: Elderly Accessibility Questionnaire] was therefore developed in order to focus upon the demand side of transportation issues

concerning accessibility to (stereotypical) services and housing location. A factual account of what the elderly **can do**, when location of housing and availability of transportation coalesce to maximize independent social interaction with their larger geographical environment, will therefore be obtained.

PART II. METHODOLOGY AND DATA ANALYSIS

METHODOLOGY: OBTAINING THE DATA

Data was obtained by means of conducting a questionnaire. The 'Elderly Accessibility Questionnaire' was devised by this author in order to research information concerning the accessibility of seniors to services. Senior participants in the study were those living in public housing in specific areas in Hamilton Ontario. A comparative case study was implemented and three sites chosen with respect to their spatial location.

All sites (senior citizen buildings) are operated under the Hamilton-Wentworth Housing Authority (HWHA), and are subsidized. The use of a public agency as the HWHA was a criteria for site selection. Support for this position is based on the understanding that changes in a public agency's housing policy, implementation and allocation of resources can potentially affect a majority of seniors. Data is also much more accessible via public rather than private agencies. The location of the research sites are as follows: one site will

be located in the inner city of Hamilton Ontario, near the Central Business District (CBD), a second on the eastern periphery of the city, and a third 'on the mountain' (on the plateau of the escarpment). They will now be referred to from this point on, as Downtown, East End and Mountain locations respectively. Locations have been chosen so that transport, mobility, and access to services may be assessed with respect to residence [reasons for choosing the above research sites and the execution of the survey are explained in Appendix B: Research Sites and Appendix C: Survey Implementation].

SURVEY DEMOGRAPHICS

The first part of the survey sought demographic information. It was determined that the overall mean age of the seniors surveyed was 73. This inclusive mean was determined between the ages of 60 (a minimum age requirement for the survey), and a maximum age of 97. The distribution of sexes in this survey conforms to norms within this age group. An overall mean distribution of 18.2% males and 81.8% females was observed. In relation to its area only, the Downtown observed the largest distribution of males at 20.5%. The most recent statistics for Hamilton's seniors (for those over the age of 65), as of 1986, reveals a gender split of lower distribution where 40.5% of seniors were male and 59.5% were female [Appendix D]. As is expected with this age group, the majority of seniors are widowed. Analyzing marital status,

widowhood aside, the most married couples were observed in the East End; and the majority of separated, divorced and never married seniors were reported Downtown. No common law relationships were observed in this study.

Observing residential status, the largest percentage of seniors, approximately 55% of the total survey population, indicated that they were either fairly recent or long time residents of their respective facility (less than two years and more than ten years). Mountain, Downtown, and East End seniors, 20.9%, 29.5% and 28.9% indicated that they have lived at their present residence for over 10 years. On-the-other-hand, 27.9%, 31.8% and 28.0% of Mountain, Downtown and East End seniors have been living less than 2 years at their residence. Those seniors living between 3-6 years at a facility were composed of 41.9%, 27.3% and 22.3% of the Mountain, Downtown and East End elderly. And finally, 9.4%, 11.3% and 20.0% of Mountain, Downtown, and East End elderly have lived within their respective dwellings between 7-10 years.

Downtown and Mountain areas reported a 100% retirement status (included in this category are those on disability pensions). Only 1.5% of the total surveyed population were not retired and lived in the East End. Previous occupations were largely skewed (close to 50%) towards the 'other' option, question 1.7 choice 1) from the survey. The majority of these seniors indicated that they were housewives. Noting other

groupings of previous occupations, distributions were seen throughout the seniors in manufacturing, wholesale or retail services and health, social or educational services which approximated 11%, 11%, and 12% respectively. Demographically, the three study areas were quite similar in their overall characteristics.

ANALYZING THE DATA: CONTINGENCY ANALYSIS

The use of descriptive statistics as the main resource of data analysis was established in order to determine if statistical relationships exist between specific variables. Simple two by three matrixes (contingency tables) were used in order to establish and facilitate the analysis of location with respect to 'diametrically opposed' variables. This method was applied in order to see if indeed, a relationship exists between a variable and the three study areas. A significance level of 0.05 was utilised throughout the study.

Some variables were collapsed in order to simplify analysis. All seniors were asked to rate how important a specific housing factor was to them when looking for a residence, prior to deciding to move into their present residence (question 2.1). The ranking of very important to very unimportant was collapsed into a 'yes considered' and 'not considered' housing factor (a,b being considered, and b,c being not considered). This allowed for an understanding of how seniors approached residential relocation. With respect

to the seventh part of each question in part three of the survey (question #.7), accessibility was collapsed so that perceived accessibility (very accessible to adequate responses of 1, 2 and 3 respectively) was compared to non-accessible responses (perceived accessibility responses of 4 and 5) [see Appendix G and I for clarification].

Contingency analysis was then run on selected questions from the 'Elderly Accessibility Questionnaire.' The results are as follows.

FACTORS CONSIDERED IN PAST RESIDENTIAL SEARCHES:

A POSSIBLE ACCESSIBILITY ISSUE

The second part of the 'Elderly Accessibility Questionnaire' attempted to determine if certain housing factors were important or considered in a senior's move to their present seniors residence.[e]

Proximity to family, access to medical facilities, and access to parks and recreational facilities were the only housing factors which resulted in significant relationships with respect to location. Proximity to family has been cited in past literature as a component of senior housing moves. For seniors who considered proximity to family as an important issue, a large majority of which 43.75% were Mountain seniors.

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[e] A reminder must be made to the reader that the chosen sites are senior housing facilities allocated as public housing under the HWHA's jurisdiction. Public housing, for all seniors, according to the HWHA, operates under the principle that rent is based on a person's income; rent being equal to 25% of the gross household income per month. This information alone may have had some impact upon responses. Direct placement at particular locations based exclusively on vacancies has occurred in the past and must be acknowledged in the analysis.

This finding is in accordance with Carolyn J. Rosenthal who acknowledges that the "... great majority of older people prefer to maintain independent households (Shanas with Heinemann, 1982; Wake and Sporakowski, 1972), but prefer to live near their grown children."[31] The present housing market and new home construction on the Hamilton mountain could possibly account for this relationship and may explain the large demand and waiting lists the HWHA has for Mountain housing placement. Secondly, a differential and significant relationship between locations and access to medical facilities was established. The finding however, cannot be substantiated by the health of the seniors in the study because direct health issues were avoided. All what can be said from the findings is that Mountain and Downtown seniors were fairly indifferent to whether or not they considered access to medical facilities in their housing search. East End seniors, on the other hand, indicated that access to such facilities was not important (73.3%). This may be attributed to the East End lacking a near by medical facility.[f] Finally, only 15.9% of all seniors considered access to parks and recreational facilities as part of their housing search. It was overwhelmingly observed that for seniors who considered access to parks and recreational activities, 61.9% of these seniors lived Downtown. Access to Dundurn Castle, Gore Park (which at present is more road and a bus transfer location

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[f] Most seniors interpreted medical facilities as being a hospital.

than park), the YWCA and other such facilities may be entities seniors considered for future use prior to their move. Seniors may have incorrectly interpreted the question in terms of present use rather than a housing consideration made in the past. All attempts were nevertheless made to ensure that this was not the case. Nonetheless, 31.8% and 54.5% of Downtown seniors presently use parks and social or recreational facilities respectively.

Overall, no statistically significant relationship existed between the three locations and the consideration of accessibility to various services in one's initial housing search.

PART III OF THE SURVEY: ACCESS TO SERVICES ANALYZED

In part three of the survey, access to services was examined. Staple and stereotypical services as the grocery store, drug store, bank, doctor's office or clinic, religious centre, recreational centre, library, places to eat out, and parks were analyzed with respect to accessibility and residential location.

The first relationship was determined to exist between the three locations with respect to distance travelled to grocery stores. This was question 3.3 in the Questionnaire. Over 95% of the Mountain and East End seniors travelled to grocery stores which were less than a three mile journey from their respective place of residence. Downtown seniors travel

distances were notably different. Of those seniors living Downtown, approximately 64% travelled less than three miles for grocery shopping. What could this possibly be attributed to? Possibly, the difference can be attributed to the East End and Mountain seniors having facilities located at closer proximity in relationship to their residence. East End and Mountain seniors were clear to point out that their proximity was in fact an issue of linearity.[g] Subsequently, perceived accessibility to grocery facilities was determined to be contingent upon use; 95.7% of all seniors who use the facility perceive it as being accessible.

Downtown locations traditionally have not been able to boast of their great grocery potential, placing more emphasis upon office and business oriented establishments. The issue of 'curvilinear commutes' is a cognitive obstacle that seniors must contend with.[h] Walking and bus travel was considered minimal by seniors and perceived as easier or more accessible when the commute was in a straight line or when the commute involved little directional movement or guidance. This issue of 'straight line proximity' is not as applicable to the Downtown locations as it is to the East End and Mountain residences. Grocery stores which were located on bus routes,

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[g] Straight line distances are easier for the elderly to manage than curvilinear commutes. This concept is consistent throughout the entire survey with respect to distance travelled. Straight line commuting is more so an issue for self mobile seniors (those who walk to facilities and to bus stops) than those who utilize other facets of travel.

[h] A 50 meter walk is still 50 meters whether it is in a straight line or if it curves and winds around. This is a perceptual illusion many people have regardless of age.

routes which directly service a senior's residence, were perceived as most accessible; especially those which involved no bus transfers. A historical perspective must also be addresses in relation to available land, residences in the central core and planning issues. Large tracts of downtown land are a relatively scarce commodity. Having to contend with the fact that the downtown was not lacking in residential accommodations, grocery stores may have had to 'make due' with available land, which may not have been in optimum locations. Stores located within new complexes reintroduces the cognitive obstacle possibly disorienting seniors.

A relationship was also established to exist between the three locations and the distance travelled to recreational centres, question 8.3 in the Questionnaire. The use of recreational facilities is therefore contingent upon distance to such facilities. Observations indicate that 78.3% of all seniors who use a social or recreational facility perceive it as being accessible [see Appendix I: Contingency Analysis, Q #8.7A]. Seniors living downtown account for 51.3% of the 'less than three mile' journeys. This relationship is best explained by the location of the Main Hess Senior's Centre which is located and accessed through the third floor of the downtown residence. The proximity of the facility appears to have an influence upon the actual numbers of seniors using such facilities and appears to account for the majority of the 'less than three mile' journeys.

With respect to question 10.3 from the Questionnaire, it was established that the use of facilities for 'eating out' in relation to location is contingent upon distance. The Mountain location in this instance appears to have seniors travelling more that three miles to such facilities. A large proportion of Mountain seniors (56%), travel between three and six miles when eating out. However, 18% stated that they did not know, indicating that distance travelled was on average 'more than a three mile' trip. In this instance, seniors in all locations were often driven by family or friends when eating out, however, this has not been statistically established. Perceived accessibility to restaurants and the like, over the entire sample, is contingent upon use. The 69.3% of all seniors who use the facility perceive it as being accessible even though a large portion of seniors who do not use such facilities perceive it as accessible (30.7%).

Perceived accessibility to park facilities was determined to be contingent upon residential location (question 11.7). Both Mountain and Downtown seniors perceived such facilities as being more accessible than their East End counterparts. However, their actual patronage is not reflective of a particular location. Perhaps this is due to the relatively few seniors only 20%, who actually go to Park facilities. This discrepancy may be due to many variables not allotted for in the survey such as health restraints (which were noted during the interviewing but cannot be statistically

substantiated). Since the Mountain and Downtown seniors noted park facilities as being perceived as more accessible, this is further supported by the fact that not one senior in the East End responded to question 11.2 a) of the Questionnaire by saying they frequent a park because it's close and convenient. Rather the majority frequent 'their' Park because it is a pleasant atmosphere to spend time in or at. Nevertheless, perceived accessibility to parks, over the entire sample, is contingent upon use. A 52.8% split for all seniors who use the facility perceive it as being accessible even thought a large portion of seniors who do not use such facilities perceive it as accessible also (47.2%). But of the 43 seniors who do not use park facilities, 58.1% indicated that a park appears accessible. For issues of health and welfare, Gerontologists and Health Officials should attempt to determine why if so many elderly view such an amenity as accessible, why then do they not utilize it in order to improve their own well being?

Often as was the case, those who used a facility, perceived it as accessible. For a small majority, those that did not use a facility perceived it as accessible also [see Appendix I]. However, when perceived accessibility of a facility, over the entire sample, was analyzed in order to determine if use was contingent upon perceived accessibility, a statistical relationship existed for all but two services, banking and library facilities [see Appendix I: Contingency

Analysis Q# 6.7A & Q# 9.7A]. The distribution of results tend to indicate that the users do view both services as accessible. It is assumed that if the distribution of perceptions of accessibility were altered, then a statistical relationships would exist as shown in the appendix for the contingency analysis.

One question in particular was very close to being statistically significant to the 0.05 level (with 2 degrees of freedom): Is the use of the city bus contingent upon residential location (question 12.3)? According to the results, no. However the results tend to indicate that the use of the city bus is slightly favoured in the Downtown location. The percentage of Mountain and East End seniors taking a bus is 76.7% and 75.6% respectively, however 93.2% of Downtown seniors take the bus. The volume of buses in the downtown core may account for this discrepancy. Question 12.1 and 12.2 indicate that not one Downtown senior has use, or owns a car, which could delineate a possible dependence upon bus service for mobility. To further investigate this issue, a contingency analysis was constructed to see if perceived ability of Hamilton bus routes (in terms of destination efficiency) is contingent upon residential location (question 12.5). No relationship was determined. Perhaps the discrepancy exists because East End seniors relying on Taxi service more than the other locations. Although taxi use may not be a valid measure of dependence on others for mobility,

in order to access certain services, it nevertheless revealed an interesting and perhaps related discrepancy. East End seniors appear to use taxis slightly more than Downtown or Mountain seniors (respectively 55.6%, 45.6% and 36.4% of East End, Mountain and Downtown seniors use a taxi to get around). This may indicate that some services or frequented establishments are more readily accessible by taxi than by buses for East End seniors. Bus service is nevertheless the dominant mode of transportation between the two.

The question was posed to seniors: Is it a chore or difficult walking to the bus stop nearest your home? (question 12.4). It was determined that a relationship exists between residential location and the reported difficulty of walking to the bus stop nearest ones home. East End seniors reported more difficulty than the other locations. Closer to 40% of the East End seniors reported difficulty, where as only 14% and about 21% of Mountain and Downtown seniors respectively reported difficulty. Could the roughly 20% discrepancy of reported difficulty be attributed to health reasons, possibly. As reported in the Questionnaire, 93% of East End seniors do not frequent Parks or comparable facilities. Health issues were nevertheless not directly addressed in the Questionnaire and cannot be significantly addressed. Actual distance to bus stops debatably had an effect upon walking difficulty, however, the difference between distance to a bus stop is likely insignificant between locations. Regardless, this

issue was not measured or accounted for in this survey.

At the end of the survey, questions were posed to address two issues: one, how seniors perceive accessibility in other Hamilton locations (using the three study sites) and; two, whether accessibility issues are more important to seniors living in specific locations.

No relationship was determined to exist between the three locations and the consideration of accessibility to services as part of a future residential relocation. It is here that other issues rather than accessibility may be more important with respect to a future move such as the price and cost of accommodations, proximity to family or even moving in with family, health related moves into a Group 3 type facility (Dependant Living) and so on.

Investigating perceived accessibility to various services, it was determined that a relationship exists between the three locations, and the consideration of having better or worse accessibility to services, regardless of residential location (question 13.2, 13.3, and 13.4). It was not astonishing to find seniors acknowledging their present residential location as being highly accessible to various services. However, the Downtown rated itself comparatively the worst in terms of accessibility [see Table 1] and Mountain seniors appeared to be the most content with their views of the mountain being perceived as being the best in terms of accessibility to services [see Table 3]. From the frequency

of responses, it was determined that: East End seniors regarded accessibility as the best in a Downtown location; Downtown seniors thought that accessibility was the best in an East End location, and; Mountain seniors were impartial towards a Downtown and East End location when comparing perceived accessibility, nevertheless, the Downtown followed the Mountain in viewing the Mountain as an adequate source of accessibility to various services. The Mountain seniors appeared to be the most content with their perceived accessibility to various services [consult Tables 1, 2 and 3].

TABLE 1.

COMPARING RESULTS OF QUESTION 13.2.
HOW DO SENIORS VIEW ACCESSIBILITY IN THE DOWNTOWN?

	EAST END		MOUNTAIN		DOWNTOWN
BETTER	86.7%	<--	85.4%	<--	77.3%
WORSE	13.3%		14.6%		22.7%

TABLE 2.

COMPARING RESULTS OF QUESTION 13.3.
HOW DO SENIORS VIEW ACCESSIBILITY IN THE EAST END?

	DOWNTOWN		EAST END		MOUNTAIN
BETTER	94.9%	<--	42.1%	<--	11.4%
WORSE	5.1%		57.9%		88.6%

TABLE 3.

COMPARING RESULTS OF QUESTION 13.4.
HOW DO SENIORS VIEW ACCESSIBILITY ON THE MOUNTAIN?

	MOUNTAIN		DOWNTOWN		EAST END
BETTER	97.4%	<--	37.0%	<--	3.2%
WORSE	2.6%		63.0%		96.8%

What exactly does this mean? One can only hypothesise that some framework of spatial cognition is operating within seniors in reference to perceived accessibility. The bilateral relationship is proposed in Figure 1.

FIGURE 1.

East End --> Downtown --> Mountain

Descriptive Analysis of perceived accessibility in different areas of Hamilton (taking relative frequency distributions and general survey information into account): East End seniors view the Downtown more favourably than Mountain seniors; Downtown seniors view the Mountain more favourably than East End seniors, and Mountain seniors view the mountain as superiorly accessible.

The last question of the survey was therefore posed (question 13.5) to determine if locational differences existed with respect to residential locational preferences: If you were able to live in any senior facility within the city of Hamilton, where would you choose to locate given the options of a downtown, mountain, or east end location? It was acknowledged by means of contingency analysis that preference for specific residential locations in Hamilton, is contingent

upon present location. This data correlates to the previous analysis of perceived accessibility which noted an imbalance in the distribution of perceived accessibility (questions 13.3, 13.4, 13.5). Seniors therefore tended to favour their present residential locations. The concept of familiarity breeding comfort is applicable in Hamilton's case.

An attempt is made from the above statistics to emphasise how the East End has been segregated, in comparison to the Mountain and Downtown locations, with respect to the lack of overly positive perceptions concerning accessibility. This may be a quantum leap in terms of deciphering questions asked, and unfortunately no purely conclusive evidence has arisen form the research to support such a claim. Examining question 2.1 reveals that such segregation is not very obvious. East End seniors noted location as a factor deemed important during their housing search more so than the other areas. Mountain seniors reported overwhelmingly that prior to moving into their present residence, proximity to family was a factor in their housing search (65.1%) followed by 44.4% of East End seniors. Finally, a higher percentage of Downtown and East End seniors viewed access to transportation services as an integral part of their housing search more so than Mountain seniors. Analyzing on a micro scale, the three research areas operate within their own functional environments. [For additional information and calculations concerning analysis, see Appendix E: for Points To Note From Data Analysis].

PART III. CONCLUSIONS

THE MOST ACCESSIBLE AREA IN HAMILTON: ACCORDING TO SENIORS

The data inconclusively yields no specific area which may be deemed as the most accessible area in Hamilton for seniors. Seniors in the study overwhelmingly, however indirectly, indicated that they operate in a very small spatial environment. Seniors appear to be accessible to staple services.

Having interviewed the seniors, a surprising observation was noted. A large majority of the seniors, for reasons unknown, knew very little about the various areas of Hamilton. For instance, some seniors in conversation indicated that they have never been on the Mountain or don't know the East End at all. These type of responses even came from those who have been living in Hamilton all their life. Possible explanations for this finding may have to do with the lack of development on the mountain during the individual's earlier and more upwardly mobile years.

Accessibility appears to be a factor which is acknowledged 'after the fact' with respect to residential location.

General accessibility is a factor seniors should be more aware of during housing searches. Thus, decreasing personal mobility and increasing dependence upon others for mobility increases with age, which is a common occurrence not only in this study, but in other studies as well.

In terms of overall accessibility related issues and services, the East End appears to be the most downtrodden of the three study areas. The Downtown was not perceived as being more accessible than the other areas, which from a geographical perspective is very interesting [see Table 1]. One would tend to view a city's downtown core as being highly accessible in accordance to Ingram's (1971) findings, however, seniors do not comply with this geographical understanding. Many factors, such as preference and relative location to family, may have biased seniors to respond as they did. Downtown seniors nevertheless, appeared to utilize public transportation more so than the other seniors.

Overall, the staple services (grocery stores, drug stores and banks) which were relatively close, less than a one mile journey, were walked to and utilized due to their relative location to one's residence. There also appears to be little difficulty in terms of accessibility within the specified areas, however accessibility between regions appears to be more difficult for seniors, especially for East End seniors accessing the mountain.

PART IV. APPLICATION

APPLICATION OF RESULTS FOR 'THE REAL WORLD'

After reviewing all the compiled data, not only can housing for the elderly be taken into greater account with respect to city and private planning, but transport

facilities, retailing, and service sectors may also be able to accommodate this growing sector of the population.

Buses, as is common knowledge, are the main source of transportation for most seniors. Observing trends in responses to bus related travel, bus use and routes, reveals a planning initiative which should be addressed. As previously mentioned in the text, bus routes which consisted of more than one bus transfer, were considered a burden, and most seniors did not frequent establishments which were 'inconvenient' in this fashion. The planning of senior's facilities should take this into account, and allocate vacant land on or near intersections for senior housing establishments (vacant land, if such land exists, is indeed a scarce commodity) allowing seniors to be more accessible to services.

Acknowledgement of straight line distances to facilities for seniors should be adopted into a planner's thought process. Such proximal, euclidean and geometrically simple concepts may enhance a seniors mobility in terms of accessibility.

Perceptions and preferences concerning accessibility and research sites were an integral part of this study. A quote extracted from Sheppard's 1978 paper illustrates the power and influence accessibility has on individuals:

> ... Differential accessibility to activities, which is the very essence of differences between places, may not only alter the degree to which individuals patronize these places, but may also change their

underlying preferences for them.[32]

Sheppard's points should be taken into account when assessing a site for future housing facilities. Borrowing the evaluation criteria from a recent feasibility study for a senior citizen's centre in Hamilton, It is this authors belief that any senior's facility should be

> ... accessible by the maximum possible number of transit routes. The routes should be from (or connected to other routes from) areas of the city that are densely populated or heavily used ... the transit routes should have frequent service and service at all times of the day and week ... accessible by traffic arteries that make private automobile access from all parts of the city quick and direct ... [and the site should be] accessible on foot by a maximum possible number of residents in the centre's area or of visitors to other functions in its neighbourhood, e.g., shopping area [etc].[33]

From the above, some typology of not necessarily laws or zoning regulations, but guidelines with respect to senior residential requirements should be outlined so that locations may be maximized. At present, the Hamilton City Plan does not mention any guidelines for the building of senior housing facilities. Such an outline may include:

1. Minimizing the distance to bus stops from a seniors residence. Bus stops should be in the form of an enclosed shelter to include benches both inside and outside the shelter (this should occur throughout the entire city and not only near senior facilities).

2. An attempt should be made to minimize distance to shopping facilities (mostly grocery stores), and if possible, should be located near a Mall which could include all the possible amenities and offer seniors an active environment to partake in if desired.

3. Level sites should be considered above sites which are not level (Downtown seniors indicated that the up and

down 'hills' around their residence restricted their accessibility in terms of walking).

4. The location of a future senior housing facility should be if not on, at least very close to, a major road artery and bus line in order to promote area and city wide accessibility, and

5. Additional parking at seniors facility should be allotted for seniors who receive visits from family and friends who may then take a senior resident 'out for shopping or other activities.' With out adequate parking, such visits may be restricted, and one's accessibility, or 'outings' may be restricted.

Granted the research did not reveal any truly unprecedented results, it did however offer a more empirical and descriptive understanding of accessibility in the various regions of Hamilton. **Transport and personal mobility of the senior in terms of accessibility to near by services or facilities should be a major factor in the planning of senior housing facilities.** The research did parallel Golant's (1976) Spatial Accessibility category of housing need with respect to facilities used. His concept of Critical Walking Distances is truly applicable in the recommendations of this study. In the event that a broader base of resources and support mechanisms are available, many alterations to the study and the Elderly Accessibility Questionnaire can and should be executed in order to improve the accuracy in which accessibility is measured within and between the Mountain, Downtown and East End areas. It is further envisioned that this information can be used and adopted to broaden the horizons of those individuals and institutions directly involved with the implementation and planning of senior housing facilities and

the like.

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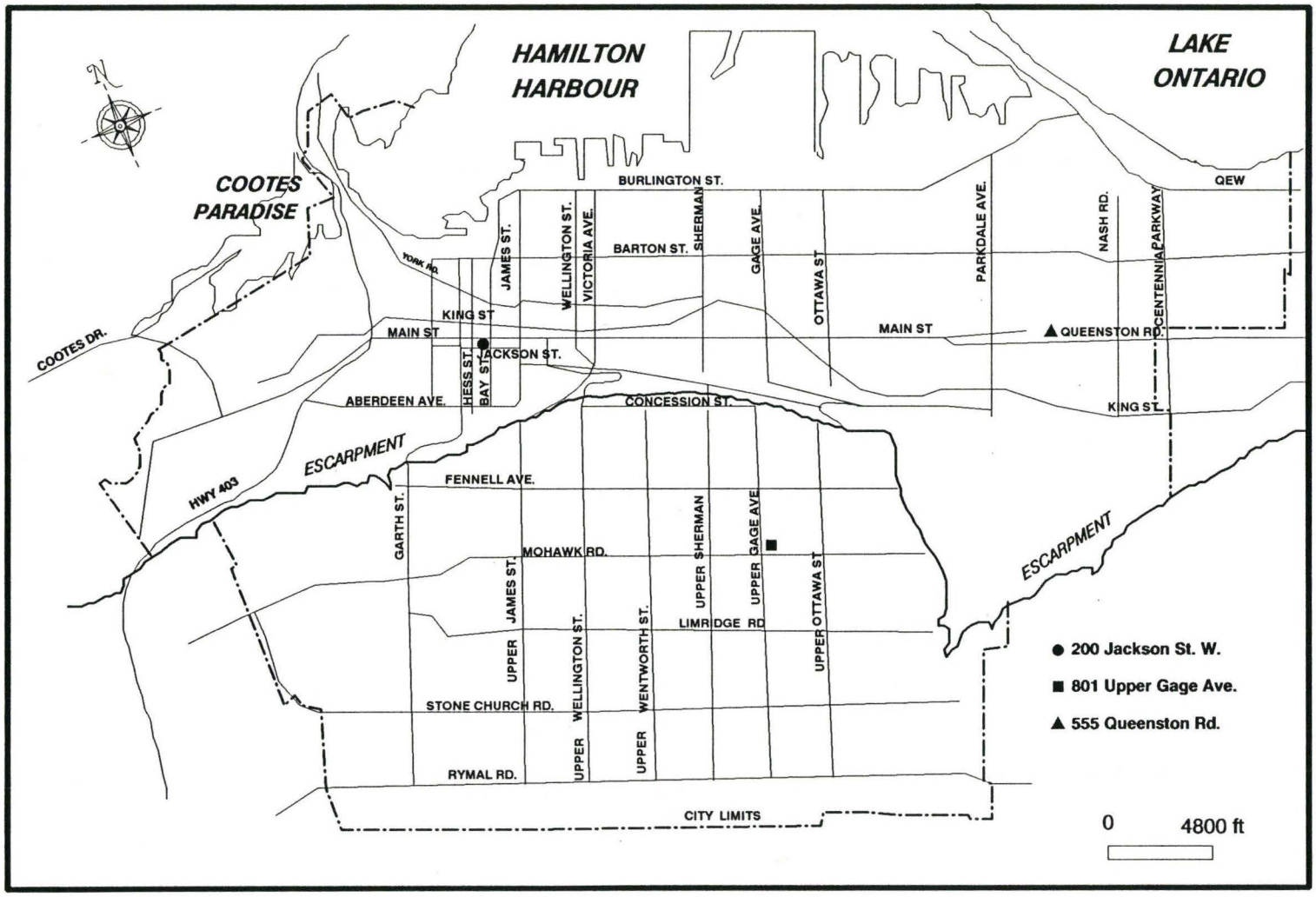
APPENDIX

APPENDIX CONTENTS:



Map 1: Relative placement of Senior Centres representing the three research areas within Hamilton, Ontario

Hamilton-Wentworth Housing Authority
Commission de logement de Hamilton-Wentworth

APPENDIX A LETTER OF AUTHORIZATION

Dear Sir/Madam:

The Hamilton Wentworth Housing Authority has given Ted Wiedener permission to conduct a survey at 200 Jackson St., 555 Queenston Rd., and 801 Upper Gage during the month of January. Ted will be going door to door to speak to some of our senior residents both during week days and on Saturdays. He will be carrying his student picture I.D. card as proof of his identification. Should you have any problems please ask him to see this card.

Ted Wiedener is a fourth year McMaster University Student who is doing his thesis on senior citizen related issues and thus requires some information on some every-day problems you might encounter. We hope that you will co-operate with him in answering his questions.

Should you have any questions please feel free to contact your Community Relations Worker (see below) who will be assisting Ted with his survey.

200 Jackson St.	Ms. Gillian Smith	521-7425
555 Queenston Rd.	Ms. Deb Clinton	521-7430
801 Upper Gage	Ms. Nancy Humpi	521-7434

Sincerely,

Rick Farrell
General Manager

2 King Street West, Plaza Level, Jackson Square P. O. Box 2500, Station 'A', Hamilton, Ontario L8N 4E5 Telephone: (416) 521-7399 Fax: (416) 521-7713
2, rue King ouest, Niveau de la Plaza, Jackson Square C. P. 2500, Station 'A', Hamilton (Ontario) L8N 4E5 Téléphone: (416) 521-7399 Télécopieur: (416) 521-7713

APPENDIX B RESEARCH SITES

Only three sites have been chosen within Hamilton due to the strong images that certain areas of the city project for not only the residents, but also geographers. For example, the East End, an area viewed as being the most distant; the Mountain, the most environmentally and aesthetically pleasing part of Hamilton, and the Central Business District, conceptually lacking staple residential amenities and an area lacking distinct and unconditional boundaries renown for harbouring many theoretical models, not only in Hamilton but abroad (ie., Burgess' Concentric Circle model, Hoyt's Zonal model and those used in micro economics). The west end of Hamilton was omitted because of its lack of available public housing under the housing authority, and its lack of a pronounced image, aside from being a University community (the above images do not intend to bias any area of Hamilton, however historical precedent has been perceived to dictate that such cognitive understandings and images exist).

The chosen sites are as follow:

a) 200 Jackson Street West representing the 'downtown core;' (Downtown)

b) 555 Queenston Road representing the 'eastern periphery of the city,' (East End) and

c) 801 Upper Gage Avenue representing 'on the mountain;' (Mountain).

Initially, these sites were chosen not only for their relative locations, but they were also selected on the basis of having relatively large numbers of units in order to obtain large enough samples. In total, the HWHA has approximately 3500 units under their jurisdiction which are allocated for seniors. Some units house couples and others are vacant at times. Therefore, the exact numbers of seniors living in the units, during the survey period, fluctuates and is currently unobtainable.

Permission was obtained from the HWHA to conduct the survey [Appendix A]. The questionnaire was conducted on an individual (door to door) basis. The seniors were informed of my presence in their respective buildings during specified days through posters on bulletin boards and near elevators. It was envisioned that a maximum of 50 questionnaires be completed during the random selection of participants; those who agreed to spend the time to do the questionnaire. Out of the targeted 50 completed surveys, 43, 44 and 45 surveys were

actually completed from the Mountain, Downtown, and East End sites respectively. However the targeted number of 50 completed surveys could have easily been obtained given ample time.

APPENDIX C SURVEY IMPLEMENTATION

The survey was conducted during the month of January, 1991. The collection of all the survey data was conducted between the hours of 9am - 6pm over an 11 day interval, spending an average of 2 days at each survey site. Thirty minutes per survey was roughly allocated for each 'interview.' This was very interesting, educational, and much ancillary data was obtained. Acknowledging hindsight bias, the 'door-to-door personalized interviews' appeared to be the best method for obtaining complete responses to such a survey in relation to mailed questionnaires, and surveys available at a common place to be filled out at one's leisure, which traditionally have had low response rates. Overall, seniors were most receptive.

A total of 209 seniors were approached, of which 77 declined and 132 accepted to do the survey. As mentioned above 43, 44, and 45 surveys were completed at the Mountain, Downtown, and East End site respectively. This works out to an overall "Response Rate" of 63%. Response rates were determined as the number of seniors who participated in the survey, with respect to those who declined for various reasons. Reasons given for declining to participate in the study were: poor english skills; ailments; just stepping out; appointments which would interfere and not allow the survey to be completed; a sense of apprehensiveness to answering a stranger's questions; and one man, however genuinely interested, opted to decline because he was deaf and blind. Overall, the seniors were most responsive. Specifically in each area: The Mountain location yielded a 54% response rate; the East End yielded a 65% response rate, and; the Downtown yielded a 73% response rate.

All responses were coded in a binary form and the frequency of responses were calculated [Appendix H: Frequency Of Responses].

The use of descriptive statistics and contingency analysis was adopted in order to obtain both a subjective and objective understanding of the area under question. Contingency analysis was later used to determine if a statistical relationship existed mainly between the various services used and a senior's residential location.

APPENDIX D SENIOR POPULATION IN HAMILTON, 1986

	A	B	C	D	E
MOUNTAIN	119940	8645	4640	13285	11
MALE	58060	3975	1665	5640	10
FEMALE	61880	4670	2975	7645	12
LOWER CITY	186820	15410	11730	27140	15
MALE	90085	6710	4010	10720	12
FEMALE	96735	8700	7720	16420	17
	---	---	---	---	--
TOTAL	306760	24055	16370	40425	13
MALE	148145	10685	5675	16360	11
FEMALE	158615	13370	10695	24065	15

A: Total Population for All Age Groups (0-75+)
B: Age Group 65-74
C: Age Group 75+
D: Total Senior Population (65+)
E: % Seniors (65+) in Total Population

* Note: Adults older than 65 are considered as Senior in the above statics

Source: Table 1, and 2 from the City Of Hamilton, Culture and Recreation Department, Feasibility Study for a Senior Citizen's Centre, Final Report, September 1990

APPENDIX E POINTS TO NOTE FROM DATA ANALYSIS

An interesting observation was made that **if a relationship existed** between actual distance travelled to a facility or service (question #.3), **no corresponding relationship existed** between the perceived accessibility to that facility or service even by non-patrons (corresponding question #.7). On the other hand, **when no relationship was determined** between actual distance travelled to a facility or service, **no corresponding relationship existed** between the perceived accessibility to that facility or service even by non-patrons with the exception of the park facility where a relationship existed. A reason why perceived accessibility to parks is contingent upon location when actual use is not may be explained by seniors viewing parks as more readily accessible that their actual behaviour. Again, isolating the East End, less than two percent of East End seniors actually use park facilities. This data is in conjunction with the perceived accessibility in the East End where seniors equally view parks as accessible and non accessible.

Seniors, with respect to mobility related issues commented that if more than one bus transfer was involved in a bus journey, the trip was perceived as 'too much' or an inconvenience. This appeared to severely restrict most seniors in their travels. However, this was a comment noted during the interview process and cannot be analytically substantiated. Support for bus related difficulties are substantiated by a comment in a very recent Feasibility study for a senior citizen's centre in Hamilton where the Institute of Environmental Research saw that "... using the public transportation system [with respect to mountain and lower city travel] can include a [sic] least one transfer, making this trip rather onerous for older adults."[34] Future surveys should take this issue into direct account when studying bus related travel and issues of senior accessibility not only in Hamilton, but abroad as well.

The 'I don't know' response to perceived distance travelled (questions 3.3, 4.3, 5.3, 6.3, 7.3, 8.3, 9.3, 10.3, and 11.3), for all questions and in all cases, may be attributed to poor distance estimation. A 'time travelled' option could have been a more representative measure or indicator for the interviewer to select during the survey. In the interviews it was noted that 'time travelled to a place' was the initial measure or indicator of distance (eg. a 5 minute bus/car ride) rather than conventional linear measures, which were actively pursued.

APPENDIX F FINDINGS IN RELATION TO PREVIOUS RESEARCH

The difficulty of relating the findings of this research to other similar research, as previously mentioned, is due to the absence of such research.

The difficulty in assessing the various sites is due to locational biasses with respect to the existence of various services. The Hess Mall is very accessible for Downtown seniors and the fact that a medical office is adjacent to the Mountain residence obviously biases the elderly view of accessibility to such services, which would obviously be perceived as very accessible even if such a service was not utilized. A large percentage of seniors do in fact perceive that they travel less than one mile to most of their staple services, and utilized them due to their being close and convenient (grocery store, drug store, and bank). These primary services appear to have a conditional distance component; those which are close and convenient are utilize, however this is not surprising. Other services in which use is determined more so upon preference, rather than distance are a doctor's office or clinic, religious centres, recreational centres, libraries, places to eat out, and parks. Reasons given for utilizing these second set of services incorporated mainly the following type of responses: "I've been seeing the same doctor for years, I've been a member, It's my church, I go for social and recreational reasons and because It's a nice place to go to." This data would indicate that the various area's are well serviced, supporting Gloria Gutman's stance that a residence's suitability for enhancing elderly life satisfaction are increased with well serviced areas around senior residences (Gutman, 1979). Ingram (1971) pointed out that the highest point of integral accessibility lies to the east of the corner of King and James street, some distance from the Downtown research site. This corresponds somewhat to the findings. Because no research site was located at Ingram's 'highest point of integral accessibility,' the Mountain appears to haven taken over the role of the area perceived to be the most accessible, in terms of accessibility to services.

APPENDIX G ELDERLY ACCESSIBILITY QUESTIONNAIRE

ELDERLY ACCESSIBILITY QUESTIONNAIRE

The purpose of this study is to gather information on the accessibility of services to senior citizens in Hamilton, Ontario.

Your information given in this questionnaire will be kept strictly confidential. The information in the survey will be used for academic research purposes only. You do not have to answer any question, you feel you do not wish to answer. However, it would be appreciated if you could attempt to answer all the questions. Take as much time as needed, there is no time limit.

The information gathered through this study will be analyzed and may reveal unprecedented areas for use in the planning of senior facilities.

***** ***** ***** ***** ***** ***** *****

Throughout the questionnaire please note the following:

1] Please circle your answers very clearly, or write out your answer where needed. Please make answer as ledgible as possible.

2] In order to minimize confusion, think of the word **accessibility** as: **'the ability to get to'**

3] When asked for street or mall locations, give either the mall name (ex. Centre Mall) or its street location (ex. King and James).

***** ***** ***** ***** ***** ***** *****

When the study is completed, the final report, will be made available with the Hamilton-Wentworth Housing Authority.

Thank you for your participation and support in this study.

I. DEMOGRAPHICS

1.1]
What is your age, or date of birth? _____

1.2]
What is your gender?

a) Male b) Female

1.3]
What is your marital status?

a) Married
b) Divorced or Separated
c) Never Married
d) Widowed
e) Common-law

1.4]
What is your length of residence (how long have you lived at the present dwelling)?

a) 1 - 2 years
b) 3 - 4 years
c) 5 - 6 years
d) 7 - 8 years
e) 9 - 10 years
f) over 10 years

1.5]
i) Do you live alone?

a) Yes (go to part ii) b) No

ii) If more than one person lives in your household, what is your relationship to those/that person?

_____

1.6]

Are you retired?

a) Yes b) No

1.7]

What was your past occupation before retirement?
(If you are still holding a full time job, circle job description that best matches your present full time job)

a) Agricultural
b) Manufacturing
c) Construction
d) Transport, storage, communications, other utilities
e) Wholesale or retail services
f) Finance or insurance
g) Real estate or business services
h) Government services
i) Health, social or educational services
j) Fishing, trapping, logging, or forestry
k) Mines, quarries or oil wells
l) OTHER :

II. PAST FOCUS OF ACCESSIBILITY AND RESIDENTIAL LOCATION

2.1] When you were looking for a place to live, and before you decided on your present location, how important were each of the following factors in your housing decision?

Ranking
a) very important
b) somewhat important
c) somewhat unimportant
d) very unimportant

Housing Factors	Ranking Very Important <---> Very Unimportant			
Affordability	a)	b)	c)	d)
Location	a)	b)	c)	d)
Type of dwelling	a)	b)	c)	d)
Proximity to family	a)	b)	c)	d)
Proximity to friends	a)	b)	c)	d)
Type of neighbourhood	a)	b)	c)	d)
Access to social services	a)	b)	c)	d)
Access to medical facilities	a)	b)	c)	d)
Access to mental health services	a)	b)	c)	d)
Access to transport services	a)	b)	c)	d)
Access to shopping facilities	a)	b)	c)	d)
Access to parks/recreational activities	a)	b)	c)	d)
Access to religious centre	a)	b)	c)	d)

Other(s)
If any (please specify and include in ranking):

_____	a)	b)	c)	d)
_____	a)	b)	c)	d)
_____	a)	b)	c)	d)
_____	a)	b)	c)	d)
_____	a)	b)	c)	d)
_____	a)	b)	c)	d)
_____	a)	b)	c)	d)
_____	a)	b)	c)	d)

2.2]
Was accessibility to services a consideration in your 'housing' search?

a) Yes b) No

III. ACCESS TO SERVICES

3.1] Do you do your own grocery shopping?

{a} If YES, what and where is your most frequented grocery store? (please give store name, and street or mall location):

_____

{b} If NO, could you please tell me why you do not shop for groceries? (after answering, please skip to question 3.7)

_____

3.2] What is your most important reason you shop at your most frequented grocery store?

a) it's very close, and convenient
b) a pleasant atmosphere to shop in
c) sells environmentally sound products
d) it's the cheapest around
e) store is located near other facilities (hair dresser, barber shop, post office, drug store, bank, etc.)
f) OTHER (please fill in): _____

3.3] On average, how far must you travel to go grocery shopping?

a) less than 1 mile (1 km)
b) between 1 and 3 miles (1 - 5 km)
c) between 3 and 6 miles (5 - 10 km)
d) over 6 miles (10 km)
e) I do not travel to the grocery store
f) OTHER (please fill in): _____

3.4] How do you usually get to the grocery store?

a) walk/cycle
b) drive myself
c) get a drive from another person
d) use public transportation (city bus/organized shuttle)
e) taxi
f) OTHER (please fill in): _____

3.5] When is your most desired time, to usually go shopping?

a) between 9am and noon, 12:00 pm
b) between 12 pm and 3pm
c) between 3pm and 6pm
d) after 6pm
e) no preferred shopping times
f) OTHER (please fill in): _____

3.6] How often do you use your most frequented grocery store?

a) a minimum of once a week
b) twice a week
c) three to four times a week
d) every day
e) never
f) OTHER (please fill in): _____

3.7] On a scale of 1 to 5, how would you rank your accessibility to your most frequented grocery store?

very accessible.....adequate.....not very accessible

1 2 3 4 5

4.1] Do you do any shopping at a drug store?

{a} If YES, what and where is your most frequented drug store? (please give store name, and street or mall location):

_____

{b} If NO, could you please tell me why you do not shop at the drug store? (after answering, please skip to 4.7)

_____

4.2] What is your most important reason you shop at your most frequented drug store?

a) it's very close, and convenient
b) a pleasant atmosphere to shop in
c) it distributes/dispenses my medication
d) it's the cheapest around
e) store is located near other facilities (hair dresser, barber shop, post office, bank, etc.)
f) OTHER (please fill in): _____

4.3] On average, how far must you travel to go to the drug store?

a) less than 1 mile (1 km)
b) between 1 and 3 miles (1 - 5 km)
c) between 3 and 6 miles (5 - 10 km)
d) over 6 miles (10 km)
e) I do not go to the drug store
f) OTHER (please fill in): _____

4.4] How do you usually get to the drug store?

a) walk/cycle
b) drive myself
c) get a drive from another person
d) use public transportation (city bus/organized shuttle)
e) taxi
f) OTHER (please fill in): _____

4.5] When is your most desired time to usually go to the drug store?

a) between 9am and noon, 12:00 pm
b) between 12 pm and 3pm
c) between 3pm and 6pm
d) after 6pm
e) no preferred shopping times
f) OTHER (please fill in): _____

4.6] How often do you use your most frequented drug store?

a) a minimum of once a week
b) twice a week
c) three to four times a week
d) every day
e) never
f) OTHER (please fill in): _____

4.7] On a scale of 1 to 5, how would you rank your accessibility (ability to get to) to your most frequented drug store?

very accessible.....adequate.....not very accessible

1 2 3 4 5

5.1] Do you do any business at the bank?
(eg. depositing, withdrawing, transactions etc.)

{a} If YES, what and where is your most frequented bank? (please give bank name, and street or mall location):

_____

{b} If NO, could you please tell me why you do not do business at the bank? (after answering, please skip to 5.7)

_____

5.2] What is your most important reason for doing business at your most frequented bank?
a) it's very close, and convenient
b) a pleasant atmosphere to do business in
c) I have been using the same bank for years (eg. Royal, CIBC, Bank of Montreal, etc.)
d) has the best rates for my savings, RRSP's, RRIF's, etc.
e) bank is located near other facilities (hair dresser, barber shop, post office, drug store, etc.)
f) OTHER (please fill in): _____

5.3] On average, how far must you travel to your bank?
a) less than 1 mile (1 km)
b) between 1 and 3 miles (1 - 5 km)
c) between 3 and 6 miles (5 - 10 km)
d) over 6 miles (10 km)
e) I do not go to the bank
f) OTHER (please fill in): _____

5.4] How do you usually get to the bank?
a) walk/cycle
b) drive myself
c) get a drive from another person
d) use public transportation (city bus/organized shuttle)
e) taxi
f) OTHER (please fill in): _____

5.5] When is your most desired time to usually go banking?
a) between 9am and noon, 12:00 pm
b) between 12 pm and 3pm
c) between 3pm and 6pm
d) after 6pm
e) no preferred banking times
f) OTHER (please fill in): _____

5.6] How often do you use your most frequented bank?

a) a minimum of once a week
b) twice a week
c) three to four times a week
d) every day
e) never
f) OTHER (please fill in): _____

5.7] On a scale of 1 to 5, how would you rank your accessibility (ability to get to) to your most frequented bank?

very accessible.....adequate.....not very accessible

1 2 3 4 5

6.1] Do you do go to the doctor's office or a clinic? (excluding emergencies)

{a} If YES, what and where is your most frequented doctor's office or clinic? (please give clinic name and street or mall location, but not doctor's name):

_____

{b} If NO, could you please tell me why you do not frequent a doctor's office or clinic? (after answering, please skip to 6.7)

_____

6.2] What is your most important reason for going to your most frequented doctor's office or clinic?

a) it's very close, and convenient
b) a pleasant atmosphere to be cared for in
c) I have been using the same doctor's office/clinic for years
d) purely medical reasons (eg. referrals)
e) doctor's office or clinic is located near other facilities (hair dresser, barber shop, post office, store, bank, etc.)
f) OTHER (please fill in): _____

6.3] On average, how far must you travel to get to your most frequented doctor's office or clinic?

a) less than 1 mile (1 km)
b) between 1 and 3 miles (1 - 5 km)
c) between 3 and 6 miles (5 - 10 km)
d) over 6 miles (10 km)
e) I go out of town to see my doctor's office or clinic
f) OTHER (please fill in): _____

6.4] How do you usually get to the doctor's office or clinic? (not including emergencies)

a) walk/cycle
b) drive myself
c) get a drive from another person
d) use public transportation (city bus/organized shuttle)
e) taxi
f) OTHER (please fill in): _____

6.5] When is your most desired time to usually go or book an appointment with your doctor's office or clinic?

a) between 9am and noon, 12:00 pm
b) between 12pm and 3pm
c) between 3pm and 6pm
d) after 6pm
e) no preferred times for booking appointments
f) OTHER (please fill in): _____

6.6] How often do you go to your most frequented doctor's office or clinic?

a) a minimum of once a week
b) twice a week
c) three to four times a week
d) every day
e) never
f) OTHER (please fill in): _____

6.7] On a scale of 1 to 5, how would you rank your accessibility (ability to get to) to your most frequented doctor's office or clinic?

very accessible.....adequate.....not very accessible

1 2 3 4 5

7.1] Do you do go to a religious centre?
(eg. church, mosque, temple, etc.)

{a} If YES, what and where is your most frequented religious centre? (please give street location eg. King and James):

_____

{b} If NO, could you please tell me why you do not frequent a religious centre? (after answering, please skip to 7.7)

_____

7.2] What is your most important reason you attend your most frequented religious centre?
(eg. church, mosque, temple etc.)

a) it's very close, and convenient
b) a pleasant atmosphere
c) I have been attending the same facilities for years (eg. member of the religious institution)
d) purely religious reasons
e) go to be with other people
f) OTHER (please fill in): _____

7.3] On average, how far must you travel to get to your most frequented religious centre?

a) less than 1 mile (1 km)
b) between 1 and 3 miles (1 - 5 km)
c) between 3 and 6 miles (5 - 10 km)
d) over 6 miles (10 km)
e) I attend a religious centre out of town
f) OTHER (please fill in): _____

7.4] How do you usually get to the religious centre?

a) walk/cycle
b) drive myself
c) get a drive from another person
d) use public transportation (city bus/organized shuttle)
e) taxi
f) OTHER (please fill in): _____

7.5] When is your most desired time to usually go to the religious centre?

a) between 9am and noon, 12:00 pm
b) between 12 pm and 3pm
c) between 3pm and 6pm
d) after 6pm
e) no preferred times to go to religious centres
f) OTHER (please fill in): _____

7.6] How often do you go to your most frequented religious centre?
a) a minimum of once a week
b) twice a week
c) three to four times a week
d) every day
e) never
f) OTHER (please fill in): _____

7.7] On a scale of 1 to 5, how would you rank your accessibility (ability to get to) to your most frequented religious centre?

very accessible.....adequate.....not very accessible

1 2 3 4 5

8.1] Do you do go to a social or recreational centre?
(eg. legion hall, ethnic club, health club, gym etc.)

{a} If YES, what and where is your most frequented social or recreational centre? (please give centre name and street location eg. King & James):

_____

{b} If NO, could you please tell me why you do not frequent a social or religious centre? (after answering, please skip to 8.7)

_____

8.2] What is your most important reason you go to your most frequented social or recreational centre?

a) it's very close, and convenient
b) a pleasant atmosphere
c) it a regular/typical occurrence
d) purely social or recreational reasons
(eg. meeting place, place to meet new people, exercise etc.)
e) located near other facilities (hair dresser, barber shop, post office, drug store, bank, etc.)

8.3] On average, how far must you travel to get to your most frequented social or recreational centre?

a) less than 1 mile (1 km)
b) between 1 and 3 miles (1 - 5 km)
c) between 3 and 6 miles (5 - 10 km)
d) over 6 miles (10 km)
e) I go to a centre out of town
f) OTHER (please fill in): _____

8.4] How do you usually get to the social or recreational centre?

a) walk/cycle
b) drive myself
c) get a drive from another person
d) use public transportation (city bus/organized shuttle)
e) taxi
f) OTHER (please fill in): _____

8.5] When is your most desired time to usually go to your social or recreational centre?

a) between 9am and noon, 12:00 pm
b) between 12pm and 3pm
c) between 3pm and 6pm
d) after 6pm
e) times to attend social or recreational centre depends on activities at centre
f) OTHER (please fill in): _____

8.6] How often do you go to your most frequented social or recreational centre?

a) a minimum of once a week
b) twice a week
c) three to four times a week
d) every day
e) never
f) OTHER (please fill in): _____

8.7] On a scale of 1 to 5, how would you rank your accessibility (ability to get to) to your most frequented social or recreational centre?

very accessible.....adequate.....not very accessible

1 2 3 4 5

9.1] Do you go or use the library?

{a} If YES, what and where is your most frequented or used library? (please give name and street location eg. King & James):

_____

{b} If NO, could you please tell me why you do not frequent a library? (after answering, please skip to 9.7)

_____

9.2] What is your most important reason you go or use your most frequented library?

a) it's very close, and convenient
b) a pleasant atmosphere to spend time in/at
c) I have been using the same library for years
d) library is located near other facilities (hair dresser, barber shop, post office, drug store, bank, etc.)
e) I do not go to the library
f) OTHER (please fill in): _____

9.3] On average, how far must you travel to get to your most frequented library?

a) less than 1 mile (1 km)
b) between 1 and 3 miles (1 - 5 km)
c) between 3 and 6 miles (5 - 10 km)
d) over 6 miles (10 km)
e) I do not go to the library
f) OTHER (please fill in): _____

9.4] How do you usually get to the library?

a) walk/cycle
b) drive myself
c) get a drive from another person
d) use public transportation (city bus/organized shuttle)
e) taxi
f) OTHER (please fill in): _____

9.5] When is your most desired time to usually go to the library?

a) between 9am and noon, 12:00 pm
b) between 12 pm and 3pm
c) between 3pm and 6pm
d) after 6pm
e) no preferred times to go to the library
f) OTHER (please fill in): _____

9.6] How often do you go to your most frequented library?

a) a minimum of once a week
b) twice a week
c) three to four times a week
d) every day
e) never
f) OTHER (please fill in): _____

9.7] On a scale of 1 to 5, how would you rank your accessibility (ability to get to) to your most frequented library?

very accessible.....adequate.....not very accessible

1 2 3 4 5

10.1]
Do you go out to eat?

{a} If YES, what and where is your most frequented place to eat? (please give name and street location eg. King and James):

_____

{b} If NO, could you please tell me why you do not frequent a place to eat? (after answering, please skip to 10.7)

_____

10.2]
What is the most important reason you go to your most frequented place to eat?
a) it's very close, and convenient
b) a pleasant atmosphere to spend time in/at
c) I have been going to the same place to eat for years
d) place to eat is located near other facilities (hair dresser, barber shop, post office, store, bank, etc.)
e) to meet with other people
f) OTHER (please fill in): _____

10.3]
On average, how far must you travel to get to your most frequented place to eat?
a) less than 1 mile (1 km)
b) between 1 and 3 miles (1 - 5 km)
c) between 3 and 6 miles (5 - 10 km)
d) over 6 miles (10 km)
e) I go to places to eat out of town
f) OTHER (please fill in): _____

10.4]
How do usually get to the place to eat?
a) walk/cycle
b) drive myself
c) get a drive from another person
d) use public transportation (city bus/organized shuttle)
e) taxi
f) OTHER (please fill in): _____

10.5]
When is your most desired time to usually go to the place to eat?
a) between 9am and noon, 12:00 pm
b) between 12 pm and 3pm
c) between 3pm and 6pm
d) after 6pm
e) no preferred times to go to the bar/tavern
f) OTHER (please fill in): _____

10.6]
How often do you go to your most frequented place to eat?
a) a minimum of once a week
b) twice a week
c) three to four times a week
d) every day
e) never
f) OTHER (please fill in): _____

10.7]
On a scale of 1 to 5, how would you rank your accessibility (ability to get to) to your most frequented place to eat?

very accessible.....adequate.....not very accessible

1 2 3 4 5

11.1]
Do you go to any 'parks?'
(eg. Royal Botanical Gardens, Rattle Snake Point, Red Hill Creek, Websters Falls, trails, school parks, forests etc.)

{a} If YES, what and where is your most frequented park? (please give name and street location eg. King and James):

_____

{b} If NO, could you please tell me why you do not frequent a park? (after answering, please skip to 11.7)

_____

11.2]
What is your most important reason you go to your most frequented park?
a) it's very close, and convenient
b) a pleasant atmosphere to spend time in/at
c) I have been going to the same park for years
d) to get away from the city
e) to meet with other people
f) OTHER (please fill in): _____

11.3]
On average, how far must you travel to get to your most frequented park?
a) less than 1 mile (1 km)
b) between 1 and 3 miles (1 - 5 km)
c) between 3 and 6 miles (5 - 10 km)
d) over 6 miles (10 km)
e) I go parks out of town
f) OTHER (please fill in): _____

11.4]
How do you usually get to the park?
a) walk/cycle
b) drive myself
c) get a drive from another person
d) use public transportation (city bus/organized shuttle)
e) taxi
f) OTHER (please fill in): _____

11.5]

When is your most desired time to usually go to the park?

a) between 9am and noon, 12:00 pm
b) between 12 pm and 3pm
c) between 3pm and 6pm
d) after 6pm
e) no preferred times to go to the park
f) OTHER (please fill in): _____

11.6]

How often do you go to your most frequented park?

a) a minimum of once a week
b) twice a week
c) three to four times a week
d) every day
e) never
f) OTHER (please fill in): _____

11.7]

On a scale of 1 to 5, how would you rank your accessibility (ability to get to) to your most frequented park?

very accessible.....adequate.....not very accessible

1 2 3 4 5

12.1]
Do you own a car?

a) Yes b) No

12.2]
Do you have the use of a car?

a) Yes b) No

12.3]
Do you use the city bus?

a) Yes b) No

If yes, how often? _____

12.4]
Is it a chore or difficult walking to the bus stop nearest your home?

a) Yes b) No

12.5]
Do you feel the Hamilton city bus routes can take you any where you want to go (with minimum trouble)?

a) Yes b) No

12.6]
i) Do you ever use a taxi to get around?

a) Yes b) No

If yes, how often? _____

ii) If you use a taxi, who usually calls the taxi?

a) you call the taxi yourself
b) someone else call the taxi for you

12.7]
Do you often depend on others for rides or transportation?

a) Yes b) No

12.8]
What other types or methods of transport do you use to get around? (please list those which have not been mentioned in the survey)

_____

IV. FUTURE FOCUS OF ACCESSIBILITY AND RESIDENTIAL LOCATION

13.1]
If you moved, would you consciously consider accessibility to services as a major consideration or factor in future housing searches?

a) Yes b) No

13.2]
If you **lived near the downtown core of Hamilton**, do you think your accessibility to various services would be:

a) Better, improved, or superior ... or
b) Worse, hindered, or restricted

Why do you think this? Please explain:

13.3]
If you **lived on or near the eastern periphery (edge) of Hamilton**, do you think your accessibility to various services would be:

a) Better, improved, or superior ... or
b) Worse, hindered, or restricted

Why do you think this? Please explain:

13.4]
If you **lived on the Mountain in Hamilton**, do you think your accessibility to various services would be:

a) Better, improved, or superior ... or
b) Worse, hindered, or restricted

Why do you think this? Please explain:

13.5]
If you were able to live in any senior facility within the city of Hamilton, where would you choose to locate?

a) Near the downtown core
b) On the eastern periphery (edge) of the city
c) 'On the Mountain'

THIS CONCLUDES THE SURVEY.

I WOULD LIKE TO THANK ALL OF YOU ONCE AGAIN WHO PUT FORTH THEIR TIME AND EFFORT IN WORKING THROUGH ALL THE QUESTIONS IN THE SURVEY.

AS A REMINDER, WHEN THE STUDY IS COMPLETED, THE FINAL REPORT, WILL BE MADE AVAILABLE WITH THE HAMILTON-WENTWORTH HOUSING AUTHORITY.

THANK YOU FOR YOUR PARTICIPATION AND SUPPORT IN THIS STUDY.

IF YOU HAVE ANY ADDITIONAL COMMENTS OR CONCERNS, PLEASE FEEL FREE TO WRITE THEM BELOW.

APPENDIX H FREQUENCY OF RESPONSES

ACCESSIBILITY QUESTIONNAIRE
DOWNTOWN LOCATION 200 JACKSON ST W

MEDIAN DISTRIBUTION OF AGES OF SENIORS INTERVIEWED

FREQUENCIES
OF RESPONSES

RANK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
AGE	60	60	61	62	62	62	63	63	65	65	65	66	66	66	66	67	67	67	67	70	71	71	73
RANK	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44		
AGE	74	74	74	75	75	76	76	77	77	78	79	81	81	82	83	84	84	85	85	88	97		

QUESTION #
==========

1.1 AVG = 72.5 MEDIAN AGE = 72, YOUNGEST = 60, OLDEST = 97

1.2 PERCENTAGE OF RESPONSES PER ANSWERED QUESTION

a)	9	20.5%
b)	35	79.5%

1.3

TOTAL # OF SUBJECTS INTERVIEWED; N = 44

a)	2	4.5%
b)	12	27.3%
c)	6	13.6%
d)	24	54.5%
e)	0	0.0%

1.4

a)	14	31.8%
b)	7	15.9%
c)	5	11.4%
d)	3	6.8%
e)	2	4.5%
f)	13	29.5%

1.5

a)	43	97.7%
b)	1	2.3%

1.6

a)	44	100%
b)	0	0.0%

1.7

a)	0	0.0%
b)	5	11.6%
c)	2	4.7%
d)	1	2.3%
e)	7	16.3%
f)	0	0.0%
g)	0	0.0%
h)	2	4.7%
i)	5	11.6%
j)	0	0.0%
k)	1	2.3%
l)	20	46.5%

2.1

PERCENTAGE THAT SAID 'YES'
"_____" WAS CONSIDERED OR SOMETHING I THOUGHT ABOUT IN MY PREVIOUS HOUSING SEARCH
(ALL PARTICIPANTS RESPONDED OR WERE PROMPTED FOR A RESPONSE)

afordabi	33	75.0%
location	33	75.0%
dwelling	34	77.3%
family	16	36.4%
friends	17	38.6%
neighbor	21	47.7%
soc serv	18	40.9%
medical	20	45.5%
mental	1	2.3%
transprt	32	72.7%
shopping	32	72.7%
park/rec	13	29.5%
religous	9	20.5%

2.2

a)	25	56.8%
b)	19	43.2%

3.1

a)	38	86.4%
b)	6	13.6%

3.2

a)	21	55.3%
b)	1	2.6%
c)	0	0.0%
d)	4	10.5%
e)	2	5.3%
f)	10	26.3%

3.3

a)	15	39.5%
b)	9	23.7%
c)	0	0.0%
d)	1	2.6%
e)	0	0.0%
f)	13	34.2%

3.4

a)	15	39.5%
b)	0	0.0%
c)	9	23.7%
d)	11	28.9%
e)	0	0.0%
f)	3	7.9%

3.5		
a)	13	34.2%
b)	6	15.8%
c)	2	5.3%
d)	1	2.6%
e)	15	39.5%
f)	1	2.6%
3.6		
a)	11	28.9%
b)	5	13.2%
c)	3	7.9%
d)	1	2.6%
e)	0	0.0%
f)	18	47.4%
3.7		
1)	34	81.0%
2)	1	2.4%
3)	2	4.8%
4)	3	7.1%
5)	2	4.8%
4.1		
a)	43	97.7%
b)	1	2.3%
4.2		
a)	29	67.4%
b)	1	2.3%
c)	11	25.6%
d)	0	0.0%
e)	0	0.0%
f)	2	4.7%
4.3		
a)	41	95.3%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	1	2.3%
f)	1	2.3%
4.4		
a)	40	93.0%
b)	0	0.0%
c)	0	0.0%
d)	1	2.3%
e)	0	0.0%
f)	2	4.7%
4.5		
a)	6	14.0%
b)	6	14.0%
c)	0	0.0%
d)	0	0.0%
e)	28	65.1%
f)	3	7.0%
4.6		
a)	18	42.9%
b)	4	9.5%
c)	3	7.1%
d)	4	9.5%
e)	0	0.0%
f)	13	31.0%
4.7		
1)	40	93.0%
2)	2	4.7%
3)	0	0.0%
4)	1	2.3%
5)	0	0.0%
5.1		
a)	42	95.5%
b)	2	4.5%
5.2		
a)	27	64.3%
b)	0	0.0%
c)	14	33.3%
d)	0	0.0%
e)	0	0.0%
f)	1	2.4%
5.3		
a)	38	90.5%
b)	2	4.8%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	2	4.8%

DOWNTOWN FREQUENCY OF RESPONSES

5.4		
a)	33	78.6%
b)	0	0.0%
c)	0	0.0%
d)	7	16.7%
e)	1	2.4%
f)	1	2.4%
5.5		
a)	6	14.3%
b)	9	21.4%
c)	0	0.0%
d)	0	0.0%
e)	25	59.5%
f)	2	4.8%
5.6		
a)	5	11.9%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	37	88.1%
5.7		
1)	40	90.9%
2)	3	6.8%
3)	1	2.3%
4)	0	0.0%
5)	0	0.0%
6.1		
a)	43	97.7%
b)	1	2.3%
6.2		
a)	4	9.3%
b)	0	0.0%
c)	24	55.8%
d)	12	27.9%
e)	0	0.0%
f)	3	7.0%
6.3		
a)	16	37.2%
b)	10	23.3%
c)	4	9.3%
d)	2	4.7%
e)	0	0.0%
f)	11	25.6%
6.4		
a)	13	30.2%
b)	0	0.0%
c)	2	4.7%
d)	17	39.5%
e)	6	14.0%
f)	5	11.6%
6.5		
a)	9	20.9%
b)	16	37.2%
c)	2	4.7%
d)	0	0.0%
e)	16	37.2%
f)	0	0.0%
6.6		
a)	1	2.3%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	42	97.7%
6.7		
1)	37	86.0%
2)	3	7.0%
3)	1	2.3%
4)	0	0.0%
5)	2	4.7%
7.1		
a)	17	38.6%
b)	27	61.4%
7.2		
a)	3	17.6%
b)	1	5.9%
c)	9	52.9%
d)	4	23.5%
e)	0	0.0%
f)	0	0.0%

7.3		
a)	9	52.9%
b)	2	11.8%
c)	1	5.9%
d)	0	0.0%
e)	1	5.9%
f)	4	23.5%
7.4		
a)	9	52.9%
b)	0	0.0%
c)	3	17.6%
d)	5	29.4%
e)	0	0.0%
f)	0	0.0%
7.5		
a)	14	82.4%
b)	1	5.9%
c)	0	0.0%
d)	1	5.9%
e)	0	0.0%
f)	1	5.9%
7.6		
a)	10	58.8%
b)	1	5.9%
c)	0	0.0%
d)	1	5.9%
e)	0	0.0%
f)	5	29.4%
7.7		
1)	18	75.0%
2)	3	12.5%
3)	0	0.0%
4)	2	8.3%
5)	1	4.2%
8.1		
a)	24	54.5%
b)	20	45.5%
8.2		
a)	1	4.2%
b)	1	4.2%
c)	1	4.2%
d)	21	87.5%
e)	0	0.0%
f)	0	0.0%
8.3		
a)	19	79.2%
b)	1	4.2%
c)	2	8.3%
d)	0	0.0%
e)	0	0.0%
f)	2	8.3%
8.4		
a)	20	83.3%
b)	0	0.0%
c)	0	0.0%
d)	3	12.5%
e)	0	0.0%
f)	1	4.2%
8.5		
a)	1	4.2%
b)	2	8.3%
c)	0	0.0%
d)	1	4.2%
e)	18	75.0%
f)	2	8.3%
8.6		
a)	4	16.7%
b)	9	37.5%
c)	5	20.8%
d)	2	8.3%
e)	0	0.0%
f)	4	16.7%
8.7		
1)	31	91.2%
2)	2	5.9%
3)	0	0.0%
4)	0	0.0%
5)	1	2.9%

9.1		
a)	9	20.5%
b)	35	79.5%
9.2		
a)	4	44.4%
b)	1	11.1%
c)	1	11.1%
d)	1	11.1%
e)	0	0.0%
f)	2	22.2%
9.3		
a)	8	88.9%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	1	11.1%
9.4		
a)	7	77.8%
b)	0	0.0%
c)	1	11.1%
d)	0	0.0%
e)	0	0.0%
f)	1	11.1%
9.5		
a)	1	11.1%
b)	3	33.3%
c)	1	11.1%
d)	0	0.0%
e)	4	44.4%
f)	0	0.0%
9.6		
a)	1	11.1%
b)	1	11.1%
c)	1	11.1%
d)	0	0.0%
e)	0	0.0%
f)	6	66.7%
9.7		
1)	26	92.9%
2)	2	7.1%
3)	0	0.0%
4)	0	0.0%
5)	0	0.0%
10.1		
a)	15	34.1%
b)	29	65.9%
10.2		
a)	2	13.3%
b)	7	46.7%
c)	2	13.3%
d)	0	0.0%
e)	1	6.7%
f)	3	20.0%
10.3		
a)	9	60.0%
b)	1	6.7%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	5	33.3%
10.4		
a)	7	46.7%
b)	0	0.0%
c)	4	26.7%
d)	4	26.7%
e)	0	0.0%
f)	0	0.0%
10.5		
a)	2	13.3%
b)	3	20.0%
c)	8	53.3%
d)	1	6.7%
e)	1	6.7%
f)	0	0.0%
10.6		
a)	6	40.0%
b)	2	13.3%
c)	2	13.3%
d)	0	0.0%
e)	0	0.0%
f)	5	33.3%

DOWNTOWN FREQUENCY OF RESPONSES

10.7		
1)	19	73.1%
2)	4	15.4%
3)	2	7.7%
4)	0	0.0%
5)	1	3.8%
11.1		
a)	14	31.8%
b)	30	68.2%
11.2		
a)	0	0.0%
b)	10	71.4%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	4	28.6%
11.3		
a)	3	21.4%
b)	2	14.3%
c)	2	14.3%
d)	0	0.0%
e)	1	7.1%
f)	6	42.9%
11.4		
a)	5	35.7%
b)	0	0.0%
c)	2	14.3%
d)	6	42.9%
e)	0	0.0%
f)	1	7.1%
11.5		
a)	1	7.1%
b)	3	21.4%
c)	2	14.3%
d)	1	7.1%
e)	7	50.0%
f)	0	0.0%
11.6		
a)	0	0.0%
b)	1	7.1%
c)	1	7.1%
d)	0	0.0%
e)	0	0.0%
f)	12	85.7%
11.7		
1)	21	72.4%
2)	2	6.9%
3)	2	6.9%
4)	3	10.3%
5)	1	3.4%
12.1		
a)	0	0.0%
b)	44	100%
12.2		
a)	0	0.0%
b)	44	100%
12.3		
a)	41	93.2%
b)	3	6.8%
12.4		
a)	9	20.5%
b)	35	79.5%
12.5		
a)	40	95.2%
b)	2	4.8%
12.6		
i) a)	16	36.4%
b)	28	63.6%
ii) a)	15	93.8%
b)	1	6.3%
12.7		
a)	10	22.7%
b)	34	77.3%
12.8		

13.1		
a)	34	77.3%
b)	10	22.7%
13.2		
a)	37	94.9%
b)	2	5.1%
13.3		
a)	3	10.0%
b)	27	90.0%
13.4		
a)	10	37.0%
b)	17	63.0%
13.5		
a)	36	83.7%
b)	3	7.0%
c)	4	9.3%

DOWNTOWN FREQUENCY OF RESPONSES

ACCESSIBILITY QUESTIONAIRRE
EAST-END LOCATION 555 QUEENSTON

MEDIAN DISTRIBUTION OF AGES OF SENIORS INTERVIEWED

RANK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
AGE	60	62	62	62	63	63	64	64	64	64	64	65	66	67	67	68	69	69	69	69	69	70	70
RANK	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	
AGE	71	72	73	73	73	73	74	74	75	77	77	78	79	79	79	80	81	83	85	85	86	91	

FREQUENCIES
OF RESPONSES

QUESTION #
==========

1.1 AVG = 71.7 MEDIAN AGE = 70, YOUNGEST = 60, OLDEST = 91

1.2 PERCENTAGE OF RESPONSES PER ANSWERED QUESTION

a)	8	17.8%
b)	37	82.2%

1.3

a)	13	28.9%
b)	3	6.7%
c)	0	0.0%
d)	29	64.4%
e)	0	0.0%

TOTAL # OF SUBJECTS INTERVIEWED; N = 45

1.4

a)	13	28.9%
b)	3	6.7%
c)	7	15.6%
d)	6	13.3%
e)	3	6.7%
f)	13	28.9%

1.5

a)	33	73.3%
b)	12	26.7%

1.6

a)	43	95.6%
b)	2	4.4%

1.7

a)	0	0.0%
b)	5	11.4%
c)	1	2.3%
d)	2	4.5%
e)	3	6.8%
f)	0	0.0%
g)	1	2.3%
h)	1	2.3%
i)	3	6.8%
j)	1	2.3%
k)	0	0.0%
l)	27	61.4%

2.1

afordabi	40	88.9%
location	41	91.1%
dwelling	32	71.1%
family	20	44.4%
friends	18	40.0%
neighbor	28	62.2%
soc serv	16	35.6%
medical	12	26.7%
mental	5	11.1%
transprt	31	68.9%
shopping	34	75.6%
park/rec	6	13.3%
religous	12	26.7%

PERCENTAGE THAT SAID 'YES'
"_____" WAS CONSIDERED OR SOMETHING I THOUGHT ABOUT IN MY PREVIOUS HOUSING SEARCH
(ALL PARTICIPANTS PRESPONDED OR WERE PROMPTED FOR A RESPONSE)

2.2

a)	21	46.7%
b)	24	53.3%

3.1

a)	40	88.9%
b)	5	11.1%

3.2

a)	21	52.5%
b)	3	7.5%
c)	0	0.0%
d)	4	10.0%
e)	0	0.0%
f)	12	30.0%

3.3

a)	32	80.0%
b)	6	15.0%
c)	1	2.5%
d)	0	0.0%
e)	0	0.0%
f)	1	2.5%

3.4

a)	18	45.0%
b)	6	15.0%
c)	9	22.5%
d)	2	5.0%
e)	1	2.5%
f)	4	10.0%

EAST-END FREQUENCY OF RESPONSES

3.5		
a)	21	52.5%
b)	8	20.0%
c)	0	0.0%
d)	0	0.0%
e)	9	22.5%
f)	2	5.0%
3.6		
a)	16	40.0%
b)	7	17.5%
c)	5	12.5%
d)	1	2.5%
e)	0	0.0%
f)	11	27.5%
3.7		
1)	30	71.4%
2)	9	21.4%
3)	2	4.8%
4)	1	2.4%
5)	0	0.0%
4.1		
a)	36	80.0%
b)	9	20.0%
4.2		
a)	9	25.7%
b)	1	2.9%
c)	14	40.0%
d)	4	11.4%
e)	1	2.9%
f)	6	17.1%
4.3		
a)	30	83.3%
b)	5	13.9%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	1	2.8%
4.4		
a)	19	52.8%
b)	5	13.9%
c)	3	8.3%
d)	3	8.3%
e)	1	2.8%
f)	5	13.9%
4.5		
a)	8	22.2%
b)	13	36.1%
c)	1	2.8%
d)	0	0.0%
e)	12	33.3%
f)	2	5.6%
4.6		
a)	7	20.6%
b)	1	2.9%
c)	0	0.0%
d)	1	2.9%
e)	0	0.0%
f)	25	73.5%
4.7		
1)	34	89.5%
2)	2	5.3%
3)	1	2.6%
4)	1	2.6%
5)	0	0.0%
5.1		
a)	41	91.1%
b)	4	8.9%
5.2		
a)	15	36.6%
b)	0	0.0%
c)	23	56.1%
d)	0	0.0%
e)	1	2.4%
f)	2	4.9%
5.3		
a)	26	63.4%
b)	11	26.8%
c)	4	9.8%
d)	0	0.0%
e)	0	0.0%
f)	0	0.0%

EAST-END FREQUENCY OF RESPONSES

5.4		
a)	13	31.7%
b)	7	17.1%
c)	7	17.1%
d)	10	24.4%
e)	0	0.0%
f)	4	9.8%
5.5		
a)	16	39.0%
b)	11	26.8%
c)	2	4.9%
d)	0	0.0%
e)	11	26.8%
f)	1	2.4%
5.6		
a)	6	14.6%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	35	85.4%
5.7		
1)	31	73.8%
2)	8	19.0%
3)	2	4.8%
4)	1	2.4%
5)	0	0.0%
6.1		
a)	41	91.1%
b)	4	8.9%
6.2		
a)	2	4.9%
b)	1	2.4%
c)	24	58.5%
d)	12	29.3%
e)	0	0.0%
f)	2	4.9%
6.3		
a)	15	36.6%
b)	22	53.7%
c)	3	7.3%
d)	0	0.0%
e)	1	2.4%
f)	0	0.0%
6.4		
a)	9	22.0%
b)	7	17.1%
c)	7	17.1%
d)	13	31.7%
e)	1	2.4%
f)	4	9.8%
6.5		
a)	14	34.1%
b)	13	31.7%
c)	1	2.4%
d)	1	2.4%
e)	12	29.3%
f)	0	0.0%
6.6		
a)	1	2.4%
b)	0	0.0%
c)	0	0.0%
d)	1	2.4%
e)	0	0.0%
f)	39	95.1%
6.7		
1)	26	61.9%
2)	14	33.3%
3)	2	4.8%
4)	0	0.0%
5)	0	0.0%
7.1		
a)	12	26.7%
b)	33	73.3%
7.2		
a)	0	0.0%
b)	0	0.0%
c)	8	66.7%
d)	4	33.3%
e)	0	0.0%
f)	0	0.0%

7.3		
a)	2	16.7%
b)	3	25.0%
c)	3	25.0%
d)	2	16.7%
e)	2	16.7%
f)	0	0.0%
7.4		
a)	1	8.3%
b)	1	8.3%
c)	4	33.3%
d)	5	41.7%
e)	0	0.0%
f)	1	8.3%
7.5		
a)	9	75.0%
b)	0	0.0%
c)	0	0.0%
d)	1	8.3%
e)	2	16.7%
f)	0	0.0%
7.6		
a)	8	66.7%
b)	1	8.3%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	3	25.0%
7.7		
1)	9	50.0%
2)	4	22.2%
3)	3	16.7%
4)	0	0.0%
5)	2	11.1%
8.1		
a)	16	35.6%
b)	29	64.4%
8.2		
a)	0	0.0%
b)	1	5.9%
c)	3	17.6%
d)	13	76.5%
e)	0	0.0%
f)	0	0.0%
8.3		
a)	6	37.5%
b)	7	43.8%
c)	0	0.0%
d)	2	12.5%
e)	1	6.3%
f)	0	0.0%
8.4		
a)	0	0.0%
b)	6	37.5%
c)	2	12.5%
d)	8	50.0%
e)	0	0.0%
f)	0	0.0%
8.5		
a)	1	6.3%
b)	5	31.3%
c)	2	12.5%
d)	1	6.3%
e)	5	31.3%
f)	2	12.5%
8.6		
a)	3	18.8%
b)	5	31.3%
c)	1	6.3%
d)	0	0.0%
e)	0	0.0%
f)	7	43.8%
8.7		
1)	8	47.1%
2)	7	41.2%
3)	1	5.9%
4)	0	0.0%
5)	1	5.9%

9.1		
a)	3	6.7%
b)	42	93.3%
9.2		
a)	1	33.3%
b)	0	0.0%
c)	1	33.3%
d)	1	33.3%
e)	0	0.0%
f)	0	0.0%
9.3		
a)	2	66.7%
b)	0	0.0%
c)	1	33.3%
d)	0	0.0%
e)	0	0.0%
f)	0	0.0%
9.4		
a)	2	66.7%
b)	0	0.0%
c)	0	0.0%
d)	1	33.3%
e)	0	0.0%
f)	0	0.0%
9.5		
a)	1	33.3%
b)	2	66.7%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	0	0.0%
9.6		
a)	0	0.0%
b)	1	33.3%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	2	66.7%
9.7		
1)	3	50.0%
2)	3	50.0%
3)	0	0.0%
4)	0	0.0%
5)	0	0.0%
10.1		
a)	18	40.0%
b)	27	60.0%
10.2		
a)	3	17.6%
b)	5	29.4%
c)	0	0.0%
d)	1	5.9%
e)	0	0.0%
f)	8	47.1%
10.3		
a)	11	61.1%
b)	3	16.7%
c)	2	11.1%
d)	0	0.0%
e)	1	5.6%
f)	1	5.6%
10.4		
a)	6	33.3%
b)	3	16.7%
c)	7	38.9%
d)	2	11.1%
e)	0	0.0%
f)	0	0.0%
10.5		
a)	4	22.2%
b)	3	16.7%
c)	6	33.3%
d)	4	22.2%
e)	1	5.6%
f)	0	0.0%
10.6		
a)	8	44.4%
b)	1	5.6%
c)	3	16.7%
d)	0	0.0%
e)	0	0.0%
f)	6	33.3%

EAST-END FREQUENCY OF RESPONSES

10.7		
1)	20	87.0%
2)	3	13.0%
3)	0	0.0%
4)	0	0.0%
5)	0	0.0%
11.1		
a)	3	6.7%
b)	42	93.3%
11.2		
a)	0	0.0%
b)	3	75.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	1	25.0%
11.3		
a)	1	33.3%
b)	0	0.0%
c)	1	33.3%
d)	1	33.3%
e)	0	0.0%
f)	0	0.0%
11.4		
a)	0	0.0%
b)	1	33.3%
c)	1	33.3%
d)	1	33.3%
e)	0	0.0%
f)	0	0.0%
11.5		
a)	0	0.0%
b)	1	33.3%
c)	0	0.0%
d)	0	0.0%
e)	2	66.7%
f)	0	0.0%
11.6		
a)	0	0.0%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	1	33.3%
f)	2	66.7%
11.7		
1)	6	33.3%
2)	2	11.1%
3)	1	5.6%
4)	5	27.8%
5)	4	22.2%
12.1		
a)	6	13.3%
b)	39	86.7%
12.2		
a)	9	20.0%
b)	36	80.0%
12.3		
a)	34	75.6%
b)	11	24.4%
12.4		
a)	16	38.1%
b)	26	61.9%
12.5		
a)	39	97.5%
b)	1	2.5%
12.6		
i) a)	25	55.6%
b)	20	44.4%
ii) a)	24	96.0%
b)	1	4.0%
12.7		
a)	17	37.8%
b)	28	62.2%
12.8		

13.1		
a)	39	86.7%
b)	6	13.3%
13.2		
a)	16	42.1%
b)	22	57.9%
13.3		
a)	37	94.9%
b)	2	5.1%
13.4		
a)	1	3.2%
b)	30	96.8%
13.5		
a)	2	4.5%
b)	40	90.9%
c)	2	4.5%

ACCESSIBILITY QUESTIONNAIRE
MOUNTAIN LOCATION 801 UPPER GAGE

FREQUENCY
OF RESPONSES

MEDIAN DISTRIBUTION OF AGES OF SENIORS INTERVIEWED

RANK	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
AGE	60	62	64	64	64	65	65	65	67	68	68	69	70	71	71	72	72	73	74	74	76	76
RANK	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	
AGE	76	77	77	78	78	78	79	80	80	81	82	82	82	82	83	84	84	85	87	87	91	

QUESTION #
==========

1.1 AVG = 75 MEDIAN AGE = 76, YOUNGEST = 60, OLDEST = 91

		PERCENTAGE OF RESPONSES PER ANSWERED QUESTION
1.2		
a)	7	16.3%
b)	36	83.7%
1.3		
a)	3	7.0%
b)	8	18.6%
c)	4	9.3%
d)	28	65.1%
e)	0	0.0%
1.4		
a)	12	27.9%
b)	7	16.3%
c)	11	25.6%
d)	2	4.7%
e)	2	4.7%
f)	9	20.9%
1.5		
a)	40	93.0%
b)	3	7.0%
1.6		
a)	43	100%
b)	0	0.0%
1.7		
a)	0	0.0%
b)	4	9.8%
c)	1	2.4%
d)	0	0.0%
e)	6	14.6%
f)	0	0.0%
g)	2	4.9%
h)	0	0.0%
i)	8	19.5%
j)	1	2.4%
k)	1	2.4%
l)	18	43.9%

TOTAL # OF SUBJECTS INTERVIEWED; N = 43

2.1

afordabi	38	88.4%
location	36	83.7%
dwelling	33	76.7%
family	28	65.1%
friends	13	30.2%
neighbor	26	60.5%
soc serv	16	37.2%
medical	23	53.5%
mental	4	9.3%
transprt	25	58.1%
shopping	28	65.1%
park/rec	2	4.7%
religous	14	32.6%

PERCENTAGE THAT SAID 'YES'
"_____" WAS CONSIDERED OR SOMETHING I THOUGHT ABOUT IN MY PREVIOUS HOUSING SEARCH
(ALL PARTICIPANTS PRESPONDED OR WERE PROMPTED FOR A RESPONSE)

2.2		
a)	25	58.1%
b)	18	41.9%
3.1		
a)	36	83.7%
b)	7	16.3%
3.2		
a)	27	77.1%
b)	2	5.7%
c)	0	0.0%
d)	1	2.9%
e)	1	2.9%
f)	4	11.4%
3.3		
a)	33	91.7%
b)	2	5.6%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	1	2.8%
3.4		
a)	29	80.6%
b)	3	8.3%
c)	2	5.6%
d)	1	2.8%
e)	0	0.0%
f)	1	2.8%

3.5		
a)	12	33.3%
b)	3	8.3%
c)	2	5.6%
d)	0	0.0%
e)	19	52.8%
f)	0	0.0%
3.6		
a)	10	27.8%
b)	11	30.6%
c)	9	25.0%
d)	2	5.6%
e)	0	0.0%
f)	4	11.1%
3.7		
1)	34	82.9%
2)	6	14.6%
3)	0	0.0%
4)	0	0.0%
5)	1	2.4%
4.1		
a)	31	72.1%
b)	12	27.9%
4.2		
a)	13	41.9%
b)	4	12.9%
c)	7	22.6%
d)	0	0.0%
e)	2	6.5%
f)	5	16.1%
4.3		
a)	30	96.8%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	1	3.2%
4.4		
a)	29	93.5%
b)	1	3.2%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	1	3.2%
4.5		
a)	5	16.1%
b)	3	9.7%
c)	1	3.2%
d)	0	0.0%
e)	21	67.7%
f)	1	3.2%
4.6		
a)	5	16.1%
b)	1	3.2%
c)	5	16.1%
d)	0	0.0%
e)	0	0.0%
f)	20	64.5%
4.7		
1)	28	75.7%
2)	8	21.6%
3)	0	0.0%
4)	0	0.0%
5)	1	2.7%
5.1		
a)	38	88.4%
b)	5	11.6%
5.2		
a)	16	42.1%
b)	0	0.0%
c)	19	50.0%
d)	0	0.0%
e)	0	0.0%
f)	3	7.9%
5.3		
a)	29	76.3%
b)	6	15.8%
c)	3	7.9%
d)	0	0.0%
e)	0	0.0%
f)	0	0.0%

MOUNTAIN FREQUENCY OF RESPONSES

5.4		
a)	22	57.9%
b)	3	7.9%
c)	2	5.3%
d)	9	23.7%
e)	1	2.6%
f)	1	2.6%
5.5		
a)	11	28.9%
b)	6	15.8%
c)	0	0.0%
d)	0	0.0%
e)	21	55.3%
f)	0	0.0%
5.6		
a)	4	10.8%
b)	1	2.7%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	32	86.5%
5.7		
1)	28	70.0%
2)	6	15.0%
3)	4	10.0%
4)	1	2.5%
5)	1	2.5%
6.1		
a)	40	93.0%
b)	3	7.0%
6.2		
a)	8	20.0%
b)	0	0.0%
c)	19	47.5%
d)	11	27.5%
e)	0	0.0%
f)	2	5.0%
6.3		
a)	18	45.0%
b)	10	25.0%
c)	4	10.0%
d)	2	5.0%
e)	0	0.0%
f)	6	15.0%
6.4		
a)	13	32.5%
b)	5	12.5%
c)	5	12.5%
d)	13	32.5%
e)	1	2.5%
f)	3	7.5%
6.5		
a)	12	30.0%
b)	8	20.0%
c)	4	10.0%
d)	0	0.0%
e)	16	40.0%
f)	0	0.0%
6.6		
a)	1	2.6%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	38	97.4%
6.7		
1)	28	66.7%
2)	8	19.0%
3)	5	11.9%
4)	1	2.4%
5)	0	0.0%
7.1		
a)	17	40.5%
b)	25	59.5%
7.2		
a)	1	5.6%
b)	2	11.1%
c)	10	55.6%
d)	5	27.8%
e)	0	0.0%
f)	0	0.0%

MOUNTAIN FREQUENCY OF RESPONSES

7.3		
a)	7	41.2%
b)	5	29.4%
c)	2	11.8%
d)	1	5.9%
e)	1	5.9%
f)	1	5.9%
7.4		
a)	1	5.9%
b)	1	5.9%
c)	11	64.7%
d)	4	23.5%
e)	0	0.0%
f)	0	0.0%
7.5		
a)	13	76.5%
b)	1	5.9%
c)	0	0.0%
d)	1	5.9%
e)	2	11.8%
f)	0	0.0%
7.6		
a)	9	52.9%
b)	0	0.0%
c)	3	17.6%
d)	0	0.0%
e)	0	0.0%
f)	5	29.4%
7.7		
1)	12	38.7%
2)	9	29.0%
3)	3	9.7%
4)	2	6.5%
5)	5	16.1%
8.1		
a)	15	34.9%
b)	28	65.1%
8.2		
a)	1	6.7%
b)	1	6.7%
c)	4	26.7%
d)	9	60.0%
e)	0	0.0%
f)	0	0.0%
8.3		
a)	4	26.7%
b)	2	13.3%
c)	4	26.7%
d)	2	13.3%
e)	1	6.7%
f)	2	13.3%
8.4		
a)	2	13.3%
b)	2	13.3%
c)	2	13.3%
d)	5	33.3%
e)	0	0.0%
f)	4	26.7%
8.5		
a)	3	20.0%
b)	2	13.3%
c)	1	6.7%
d)	2	13.3%
e)	6	40.0%
f)	1	6.7%
8.6		
a)	5	33.3%
b)	4	26.7%
c)	3	20.0%
d)	0	0.0%
e)	0	0.0%
f)	3	20.0%
8.7		
1)	8	32.0%
2)	12	48.0%
3)	2	8.0%
4)	1	4.0%
5)	2	8.0%

MOUNTAIN FREQUENCY OF RESPONSES

9.1		
a)	6	14.0%
b)	37	86.0%
9.2		
a)	1	16.7%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	5	83.3%
9.3		
a)	3	50.0%
b)	2	33.3%
c)	1	16.7%
d)	0	0.0%
e)	0	0.0%
f)	0	0.0%
9.4		
a)	2	33.3%
b)	1	16.7%
c)	0	0.0%
d)	2	33.3%
e)	0	0.0%
f)	1	16.7%
9.5		
a)	2	33.3%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	4	66.7%
f)	0	0.0%
9.6		
a)	1	16.7%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	5	83.3%
9.7		
1)	9	37.5%
2)	10	41.7%
3)	2	8.3%
4)	1	4.2%
5)	2	8.3%
10.1		
a)	16	37.2%
b)	27	62.8%
10.2		
a)	0	0.0%
b)	1	6.3%
c)	0	0.0%
d)	1	6.3%
e)	3	18.8%
f)	11	68.8%
10.3		
a)	1	6.3%
b)	3	18.8%
c)	9	56.3%
d)	0	0.0%
e)	0	0.0%
f)	3	18.8%
10.4		
a)	0	0.0%
b)	1	6.3%
c)	12	75.0%
d)	3	18.8%
e)	0	0.0%
f)	0	0.0%
10.5		
a)	1	6.3%
b)	3	18.8%
c)	9	56.3%
d)	3	18.8%
e)	0	0.0%
f)	0	0.0%
10.6		
a)	3	18.8%
b)	2	12.5%
c)	1	6.3%
d)	0	0.0%
e)	0	0.0%
f)	10	62.5%

10.7		
1)	9	26.5%
2)	13	38.2%
3)	8	23.5%
4)	2	5.9%
5)	2	5.9%
11.1		
a)	10	23.3%
b)	33	76.7%
11.2		
a)	1	10.0%
b)	5	50.0%
c)	0	0.0%
d)	2	20.0%
e)	0	0.0%
f)	2	20.0%
11.3		
a)	1	10.0%
b)	2	20.0%
c)	1	10.0%
d)	2	20.0%
e)	3	30.0%
f)	1	10.0%
11.4		
a)	0	0.0%
b)	1	10.0%
c)	4	40.0%
d)	4	40.0%
e)	0	0.0%
f)	1	10.0%
11.5		
a)	4	40.0%
b)	2	20.0%
c)	0	0.0%
d)	0	0.0%
e)	4	40.0%
f)	0	0.0%
11.6		
a)	3	30.0%
b)	0	0.0%
c)	0	0.0%
d)	0	0.0%
e)	0	0.0%
f)	7	70.0%
11.7		
1)	8	28.6%
2)	8	28.6%
3)	3	10.7%
4)	7	25.0%
5)	2	7.1%
12.1		
a)	7	16.3%
b)	36	83.7%
12.2		
a)	9	20.9%
b)	34	79.1%
12.3		
a)	33	76.7%
b)	10	23.3%
12.4		
a)	6	14.0%
b)	37	86.0%
12.5		
a)	36	97.3%
b)	1	2.7%
12.6		
i) a)	20	46.5%
b)	23	53.5%
ii) a)	19	95.0%
b)	1	5.0%
12.7		
a)	18	41.9%
b)	25	58.1%
12.8		

13.1		
a)	35	85.4%
b)	6	14.6%
13.2		
a)	4	11.4%
b)	31	88.6%
13.3		
a)	3	12.5%
b)	21	87.5%
13.4		
a)	37	97.4%
b)	1	2.6%
13.5		
a)	1	2.4%
b)	1	2.4%
c)	40	95.2%

APPENDIX I CONTINGENCY ANALYSIS

CONTINGENCY TABLE CALCULATIONS DETERMINING RELATIONSHIPS BETWEEN LOCATIONS AND VARIABLES LIKELY ASSOCIATED WITH ACCESSIBILITY AND LOCATION

ELDERLY ACCESSIBILITY QUESTIONNAIRE

MOUNT = MOUNTAIN LOCATION N = 43 CBD = DOWNTOWN LOCATION N = 44 E-END = EAST-END LOCATION N = 45

CONTINGENCY TABLE (layout)
Variable (Usu. location)
Var. 1 2 3 <- cell #'s
Var. 4 5 6

Expected (E) = (sum of ROW)(sum of COLUMN)/N
Degrees of Freedom (d.f) = (r-1)(c-1) or (# of rows - 1)(# of columns -1)

PAST FOCUS OF ACCESSIBILITY AND RESIDENTIAL LOCATION

Q. #2.1 Was AFFORDABILITY considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	38	33	40	111
NO	5	11	5	21
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	38.00	36.16	3.39	0.09
2	33.00	37.00	16.00	0.43
3	40.00	37.84	4.66	0.12
4	5.00	6.84	3.39	0.50
5	11.00	7.00	16.00	2.29
6	5.00	7.16	4.66	0.65
		CHI SQUARED (X^2)=		4.08

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of affordability in seniors initial housing searches
AFFORDABILITY was therefore not considered, or thought of, any differently in any other area

Q. #2.1 Was a specific LOCATION within Hamilton considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	36	33	41	110
NO	7	11	4	22
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	36.00	35.83	0.03	0.00
2	33.00	36.67	13.44	0.37
3	41.00	37.50	12.25	0.33
4	7.00	7.17	0.03	0.00
5	11.00	7.33	13.44	1.83
6	4.00	7.50	12.25	1.63
		CHI SQUARED (X^2)=		4.16

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of relative location in seniors initial housing searches
BUILDING LOCATION was therefore not considered, or thought of, any differently in any other area

Q. #2.1 Was the type of dwelling considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	33	34	32	99
NO	10	10	13	33
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	33.00	32.25	0.56	0.02
2	34.00	33.00	1.00	0.03
3	32.00	33.75	3.06	0.09
4	10.00	10.75	0.56	0.05
5	10.00	11.00	1.00	0.09
6	13.00	11.25	3.06	0.27
		CHI SQUARED (X^2)=		0.55

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of dwelling type in initial housing searches
DWELLING TYPE was therefore not considered, or thought of, any differently in any other area

Q. #2.1 Was proximity to family considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	28	16	20	64
NO	15	28	25	68
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	28.00	20.85	51.14	2.45
2	16.00	21.33	28.44	1.33
3	20.00	21.82	3.31	0.15
4	15.00	22.15	51.14	2.31
5	28.00	22.67	28.44	1.25
6	25.00	23.18	3.31	0.14
			CHI SQUARED (X^2)=	7.64

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the consideration of proximity to family in seniors initial housing searches
PROXIMITY TO FAMILY was therefore considered, or thought of or weighted differently in the areas

Q. #2.1 Was proximity to friends considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	13	17	18	48
NO	30	27	27	84
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	13.00	15.64	6.95	0.44
2	17.00	16.00	1.00	0.06
3	18.00	16.36	2.68	0.16
4	30.00	27.36	6.95	0.25
5	27.00	28.00	1.00	0.04
6	27.00	28.64	2.68	0.09
			CHI SQUARED (X^2)=	1.05

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of proximity to friends in a seniors initial housing search
PROXIMITY TO FRIENDS was therefore not considered, or thought of, any differently in any other area

Q. #2.1 Was the type of neighbourhood considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	26	21	28	75
NO	17	23	17	57
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	26.00	24.43	2.46	0.10
2	21.00	25.00	16.00	0.64
3	28.00	25.57	5.91	0.23
4	17.00	18.57	2.46	0.13
5	23.00	19.00	16.00	0.84
6	17.00	19.43	5.91	0.30
			CHI SQUARED (X^2)=	2.25

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of neighbourhood type in initial housing searches
TYPE OF NEIGHBOURHOOD was therefore not considered, or thought of, any differently in any other area

Q. #2.1 Was having access to Social services considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	16	18	16	50
NO	27	26	29	82
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	16.00	16.29	0.08	0.01
2	18.00	16.67	1.78	0.11
3	16.00	17.05	1.09	0.06
4	27.00	26.71	0.08	0.00
5	26.00	27.33	1.78	0.07
6	29.00	27.95	1.09	0.04
			CHI SQUARED (X^2)=	0.28

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of access to social services in initial housing searches
SOCIAL SERVICES was therefore not considered, or thought of, any differently in any other area

Q. #2.1 Was having access to Medical facilities considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	23	20	12	55
NO	20	24	33	77
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	23.00	17.92	25.84	1.44
2	20.00	18.33	2.78	0.15
3	12.00	18.75	45.56	2.43
4	20.00	25.08	25.84	1.03
5	24.00	25.67	2.78	0.11
6	33.00	26.25	45.56	1.74
		CHI SQUARED (X^2)=		6.90

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the consideration of
access to medical facilities in initial housing searches
ACCESS TO MEDICAL FACILITIES was therefore considered, or thought of, differently within the areas

Q. #2.1 Was having access to mental health facilities considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	4	1	5	10
NO	39	43	40	122
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	4.00	3.26	0.55	0.17
2	1.00	3.33	5.44	1.63
3	5.00	3.41	2.53	0.74
4	39.00	39.74	0.55	0.01
5	43.00	40.67	5.44	0.13
6	40.00	41.59	2.53	0.06
		CHI SQUARED (X^2)=		2.75

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of
access to mental health facilities in initial housing searches
ACCESS TO MENTAL HEALTH FACILITIES was therefore Not considered, or thought of, differently within the area

Q. #2.1 Was having access to TRANSPORTATION services considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	25	32	31	88
NO	18	12	14	44
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	25.00	28.67	13.44	0.47
2	32.00	29.33	7.11	0.24
3	31.00	30.00	1.00	0.03
4	18.00	14.33	13.44	0.94
5	12.00	14.67	7.11	0.48
6	14.00	15.00	1.00	0.07
		CHI SQUARED (X^2)=		2.23

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of
accessibility to (or residing near) transportation services in initial housing searches
TRANSPORTATION was therefore not considered, or thought of, any differently in any other area

Q. #2.1 Was having access to SHOPPING FACILITIES considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	28	32	34	94
NO	15	12	11	38
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	28.00	30.62	6.87	0.22
2	32.00	31.33	0.44	0.01
3	34.00	32.05	3.82	0.12
4	15.00	12.38	6.87	0.56
5	12.00	12.67	0.44	0.04
6	11.00	12.95	3.82	0.29
		CHI SQUARED (X^2)=		1.24

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of
accessibility to (or residing near) Shopping facilities in initial housing searches
SHOPPING was therefore not considered, or thought of, any differently in any other area

Q. #2.1 Was having access to park/recreational facilities considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	2	13	6	21
NO	41	31	39	111
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	2.00	6.84	23.43	3.43
2	13.00	7.00	36.00	5.14
3	6.00	7.16	1.34	0.19
4	41.00	36.16	23.43	0.65
5	31.00	37.00	36.00	0.97
6	39.00	37.84	1.34	0.04
			CHI SQUARED (X^2)=	10.41

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the consideration of access to park/recreational facilities in initial housing searches
ACCESS TO PARK/RECREATIONAL FACILITIES was therefore considered, or thought of, differently within the area

Q. #2.1 Was having access to A religious centre considered when first searching for a place to live?

	MOUNT	CBD	E-END	
YES	14	9	12	35
NO	29	35	33	97
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	14.00	11.40	6.75	0.59
2	9.00	11.67	7.11	0.61
3	12.00	11.93	0.00	0.00
4	29.00	31.60	6.75	0.21
5	35.00	32.33	7.11	0.22
6	33.00	33.07	0.00	0.00
			CHI SQUARED (X^2)=	1.64

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of access to religious facilities in initial housing searches
ACCESS TO RELIGIOUS FACILITIES was therefore NOT considered, or thought of, differently within the areas

Q. #2.2 Was having accessibility to services a consideration in your housing search?

	MOUNT	CBD	E-END	
YES	25	25	21	71
NO	18	19	24	61
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	25.00	23.13	3.50	0.15
2	25.00	23.67	1.78	0.08
3	21.00	24.20	10.27	0.42
4	18.00	19.87	3.50	0.18
5	19.00	20.33	1.78	0.09
6	24.00	20.80	10.27	0.49
			CHI SQUARED (X^2)=	1.41

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the consideration of accessibility to various services in one's initial housing search
ACCESSIBILITY TO SERVICES was therefore not considered, or thought of, any differently in any other area in the past

PRESENT ACCESS TO SERVICES

Q. #3.3 Is distance traveled for grocery shopping contingent upon distance with respect to location?

	MOUNT	CBD	E-END	
LESS THAN 3 Mi.	35	24	38	97
MORE THAN 3 Mi.	1	14	2	17
-or don't know				
	36	38	40	114

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	35.00	30.63	19.08	0.62
2	24.00	32.33	69.44	2.15
3	38.00	34.04	15.72	0.46
4	1.00	5.37	19.08	3.55
5	14.00	5.67	69.44	12.25
6	2.00	5.96	15.72	2.64
			CHI SQUARED (X^2)=	21.68

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the distance traveled for grocery shopping
SHOPPING is therefore contingent upon (percieved) distance to facilities used

Q. #3.7 Is perceived accessibility to grocery shopping contingent upon residential location?

	MOUNT	CBD	E-END	
ACCESSIBLE	40	37	41	118
NOT ACCESSIBLE	1	5	1	7
	41	42	42	125

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	40.00	38.70	1.68	0.04
2	37.00	39.65	7.01	0.18
3	41.00	39.65	1.83	0.05
4	1.00	2.30	1.68	0.73
5	5.00	2.35	7.01	2.98
6	1.00	2.35	1.83	0.78
			CHI SQUARED (X^2)=	4.76

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the perceived accessibility to grocery shopping facilities
PERCEIVED ACCESSIBILITY to grocery facilities used is not contingent upon location

Q. #4.3 Is distance traveled for drug store shopping/use contingent upon distance with respect to location?

	MOUNT	CBD	E-END	
LESS THAN 3 Mi.	30	41	35	106
MORE THAN 3 Mi.	1	2	1	4
-or don't know				
	31	43	36	110

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	30.00	29.87	0.02	0.00
2	41.00	41.44	0.19	0.00
3	35.00	34.69	0.10	0.00
4	1.00	1.13	0.02	0.01
5	2.00	1.56	0.19	0.12
6	1.00	1.31	0.10	0.07
			CHI SQUARED (X^2)=	0.22

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the distance traveled for drug store shopping/use
DRUG STORE SHOPPING/USE is therefore Not contingent upon (percieved) distance to facilities used

Q. #4.7 Is perceived accessibility to drug store shopping/use contingent upon residential location?

	MOUNT	CBD	E-END	
ACCESSIBLE	36	42	37	115
NOT ACCESSIBLE	1	1	1	3
	37	43	38	118

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	36.00	36.06	0.00	0.00
2	42.00	41.91	0.01	0.00
3	37.00	37.03	0.00	0.00
4	1.00	0.94	0.00	0.00
5	1.00	1.09	0.01	0.01
6	1.00	0.97	0.00	0.00
			CHI SQUARED (X^2)=	0.01

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the perceived accessibility to drug store shopping facilities
PERCEIVED ACCESSIBILITY to drug store facilities is not contingent upon location

Q. #5.3 Is distance traveled for banking purposes contingent upon distance with respect to location?

	MOUNT	CBD	E-END	
LESS THAN 3 Mi.	35	40	37	112
MORE THAN 3 Mi.	3	2	4	9
-or don't know				
	38	42	41	121

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	35.00	35.17	0.03	0.00
2	40.00	38.88	1.26	0.03
3	37.00	37.95	0.90	0.02
4	3.00	2.83	0.03	0.01
5	2.00	3.12	1.26	0.40
6	4.00	3.05	0.90	0.30
			CHI SQUARED (X^2)=	0.77

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the
distance traveled for banking purposes
USE OF BANKING FACILITIES is therefore Not contingent upon (percieved) distance to facilities used

Q. #5.7 Is perceived accessibility to the bank contingent upon residential location?

	MOUNT	CBD	E-END	
ACCESSIBLE	38	44	41	123
NOT ACCESSIBLE	3	0	1	4
	41	44	42	127

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	38.00	39.71	2.92	0.07
2	44.00	42.61	1.92	0.05
3	41.00	40.68	0.10	0.00
4	3.00	1.29	2.92	2.26
5	0.00	1.39	1.92	1.39
6	1.00	1.32	0.10	0.08
			CHI SQUARED (X^2)=	3.85

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the
perceived accessibility to banking facilities
PERCEIVED ACCESSIBILITY to banking facilities is not contingent upon location

Q. #6.3 Is distance traveled for medical related purposes contingent upon distance with respect to location?

	MOUNT	CBD	E-END	
LESS THAN 3 Mi.	28	26	37	91
MORE THAN 3 Mi.	12	17	4	33
-or don't know				
	40	43	41	124

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	28.00	29.35	1.84	0.06
2	26.00	31.56	30.87	0.98
3	37.00	30.09	47.77	1.59
4	12.00	10.65	1.84	0.17
5	17.00	11.44	30.87	2.70
6	4.00	10.91	47.77	4.38
			CHI SQUARED (X^2)=	9.88

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the
distance traveled for medical related purposes
USE OF MEDICALLY ASSOCIATED FACILITIES is therefore contingent upon (percieved) distance to facilities used

Q. #6.7 Is perceived accessibility to Medical facilities contingent upon residential location?

	MOUNT	CBD	E-END	
ACCESSIBLE	41	41	42	124
NOT ACCESSIBLE	1	2	0	3
	42	43	42	127

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	41.00	41.01	0.00	0.00
2	41.00	41.98	0.97	0.02
3	42.00	41.01	0.98	0.02
4	1.00	0.99	0.00	0.00
5	2.00	1.02	0.97	0.95
6	0.00	0.99	0.98	0.99
			CHI SQUARED (X^2)=	1.99

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the
perceived accessibility to Medically oriented facilities
PERCEIVED ACCESSIBILITY to medically oriented facilities is not contingent upon location

Q. #7.3 Is distance traveled towards religious centres contingent upon distance with respect to location?

	MOUNT	CBD	E-END	
LESS THAN 3 Mi.	12	11	5	28
MORE THAN 3 Mi.	5	6	7	18
-or don't know				
	17	17	12	46

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	12.00	10.35	2.73	0.26
2	11.00	10.35	0.43	0.04
3	5.00	7.30	5.31	0.73
4	5.00	6.65	2.73	0.41
5	6.00	6.65	0.43	0.06
6	7.00	4.70	5.31	1.13
		CHI SQUARED (X^2)=		2.64

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the distance traveled to religious centres
USE OF RELIGIOUS FACILITIES is therefore not contingent upon (percieved) distance to facilities used

Q. #7.7 Is perceived accessibility to Religious facilities contingent upon residential location?

	MOUNT	CBD	E-END	
ACCESSIBLE	24	21	16	61
NOT ACCESSIBLE	7	3	2	12
	31	24	18	73

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	24.00	25.90	3.63	0.14
2	21.00	20.05	0.89	0.04
3	16.00	15.04	0.92	0.06
4	7.00	5.10	3.63	0.71
5	3.00	3.95	0.89	0.23
6	2.00	2.96	0.92	0.31
		CHI SQUARED (X^2)=		1.49

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the perceived accessibility to religious facilities
PERCEIVED ACCESSIBILITY to religious facilities is not contingent upon location

Q. #8.3 Is distance traveled to recreational centres contingent upon distance with respect to location?

	MOUNT	CBD	E-END	
LESS THAN 3 Mi.	6	20	13	39
MORE THAN 3 Mi.	9	4	3	16
-or don't know				
	15	24	16	55

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	6.00	10.64	21.50	2.02
2	20.00	17.02	8.89	0.52
3	13.00	11.35	2.74	0.24
4	9.00	4.36	21.50	4.93
5	4.00	6.98	8.89	1.27
6	3.00	4.65	2.74	0.59
		CHI SQUARED (X^2)=		9.57

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the distance traveled to recreational centres
USE OF RECREATIONAL FACILITIES is therefore contingent upon (percieved) distance to facilities used

Q. #8.7 Is perceived accessibility to Recreational facilities contingent upon residential location?

	MOUNT	CBD	E-END	
ACCESSIBLE	22	33	16	71
NOT ACCESSIBLE	3	1	1	5
	25	34	17	76

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	22.00	23.36	1.84	0.08
2	33.00	31.76	1.53	0.05
3	16.00	15.88	0.01	0.00
4	3.00	1.64	1.84	1.12
5	1.00	2.24	1.53	0.68
6	1.00	1.12	0.01	0.01
		CHI SQUARED (X^2)=		1.94

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the perceived accessibility to recreational facilities
PERCEIVED ACCESSIBILITY to recreational facilities is not contingent upon location

Q. #9.3 Is distance traveled for library use contingent upon distance with respect to location?

	MOUNT	CBD	E-END	
LESS THAN 3 Mi.	5	7	2	14
MORE THAN 3 Mi.	1	2	1	4
-or don't know				
	6	9	3	18

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	5.00	4.67	0.11	0.02
2	7.00	7.00	0.00	0.00
3	2.00	2.33	0.11	0.05
4	1.00	1.33	0.11	0.08
5	2.00	2.00	0.00	0.00
6	1.00	0.67	0.11	0.17
		CHI SQUARED (X^2)=		0.32

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the
distance traveled to library facilities
USE OF LIBRARY FACILITIES is therefore not contingent upon (percieved) distance to facilities used

Q. #9.7 Is perceived accessibility to library facilities contingent upon residential location?

	MOUNT	CBD	E-END	
ACCESSIBLE	21	28	6	55
NOT ACCESSIBLE	3	0	0	3
	24	28	6	58

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	21.00	22.76	3.09	0.14
2	28.00	26.55	2.10	0.08
3	6.00	5.69	0.10	0.02
4	3.00	1.24	3.09	2.49
5	0.00	1.45	2.10	1.45
6	0.00	0.31	0.10	0.31
		CHI SQUARED (X^2)=		4.48

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the
perceived accessibility to library facilities
PERCEIVED ACCESSIBILITY to library facilities is not contingent upon location

Q. #10.3 Is distance traveled for 'eating out' contingent upon distance with respect to location?

	MOUNT	CBD	E-END	
LESS THAN 3 Mi.	4	10	14	28
MORE THAN 3 Mi.	12	5	4	21
-or don't know				
	16	15	18	49

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	4.00	9.14	26.45	2.89
2	10.00	8.57	2.04	0.24
3	14.00	10.29	13.80	1.34
4	12.00	6.86	26.45	3.86
5	5.00	6.43	2.04	0.32
6	4.00	7.71	13.80	1.79
		CHI SQUARED (X^2)=		10.44

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the
distance traveled to 'places to eat out'
USE OF FACILITIES FOR 'EATING OUT' is therefore contingent upon (percieved) distance to facilities used

Q. #10.7 Is perceived accessibility to 'eating out facilities' contingent upon residential location?

	MOUNT	CBD	E-END	
ACCESSIBLE	30	25	23	78
NOT ACCESSIBLE	4	1	0	5
	34	26	23	83

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	30.00	31.95	3.81	0.12
2	25.00	24.43	0.32	0.01
3	23.00	21.61	1.92	0.09
4	4.00	2.05	3.81	1.86
5	1.00	1.57	0.32	0.20
6	0.00	1.39	1.92	1.39
		CHI SQUARED (X^2)=		3.67

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the
perceived accessibility to 'places one can eat out'
PERCEIVED ACCESSIBILITY to 'places to eat out' is not contingent upon location

Q. #11.3 Is distance traveled for park use contingent upon distance with respect to location?

	MOUNT	CBD	E-END	
LESS THAN 3 Mi.	3	5	1	9
MORE THAN 3 Mi.	7	9	2	18
-or don't know				
	10	14	3	27

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	3.00	3.33	0.11	0.03
2	5.00	4.67	0.11	0.02
3	1.00	1.00	0.00	0.00
4	7.00	6.67	0.11	0.02
5	9.00	9.33	0.11	0.01
6	2.00	2.00	0.00	0.00
			CHI SQUARED (X^2)=	0.09

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is $p < 0.05$
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the distance traveled to parks
USE OF PARK FACILITIES is therefore not contingent upon (percieved) distance to facilities used

Q. #11.7 Is perceived accessibility to Park facilities contingent upon residential location?

	MOUNT	CBD	E-END	
ACCESSIBLE	19	25	9	53
NOT ACCESSIBLE	9	4	9	22
	28	29	18	75

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	19.00	19.79	0.62	0.03
2	25.00	20.49	20.31	0.99
3	9.00	12.72	13.84	1.09
4	9.00	8.21	0.62	0.08
5	4.00	8.51	20.31	2.39
6	9.00	5.28	13.84	2.62
			CHI SQUARED (X^2)=	7.19

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is $p < 0.05$
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the perceived accessibility to park facilities
PERCEIVED ACCESSIBILITY TO PARKS is contingent upon location

Q. #12.3 Is use of the city bus contingent upon residential location?

	MOUNT	CBD	E-END	
USE BUS	33	41	34	108
DON'T USE BUS	10	3	11	24
	43	44	45	132

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	33.00	35.18	4.76	0.14
2	41.00	36.00	25.00	0.69
3	34.00	36.82	7.94	0.22
4	10.00	7.82	4.76	0.61
5	3.00	8.00	25.00	3.13
6	11.00	8.18	7.94	0.97
			CHI SQUARED (X^2)=	5.75

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is $p < 0.05$
(with d.f = 2) is 5.991
SINCE CHI SQUARED is slightly LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the use of the city bus
USE OF THE CITY BUS is not contingent upon location

Q. #12.4 Is the difficulty of walking to the bus stop nearest ones place of residence, as reported by seniors, contingent upon residential location?

	MOUNT	CBD	E-END	
DIFFICULT	6	9	16	31
NOT DIFFICULT	37	35	26	98
	43	44	42	129

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	6.00	10.33	18.78	1.82
2	9.00	10.57	2.48	0.23
3	16.00	10.09	34.89	3.46
4	37.00	32.67	18.78	0.57
5	35.00	33.43	2.48	0.07
6	26.00	31.91	34.89	1.09
			CHI SQUARED (X^2)=	7.25

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is $p < 0.05$
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the reported difficulty of walking to the nearest bus stop
DIFFICULTY OF WALKING TO THE NEAREST BUS STOP, in relation to one's residence, is contingent upon location

Q. #12.5 Is perceived ability of Hamilton bus routes (in terms of destination efficiency) is contingent upon residential location? (Do you feel the Hamilton city bus routes can take you anywhere you want to go with minimal trouble?)

	MOUNT	CBD	E-END	
YES	36	40	39	115
NO	1	2	1	4
	37	42	40	119

d.f = (2-1)(3-1)
= 2

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	36.00	35.76	0.06	0.00
2	40.00	40.59	0.35	0.01
3	39.00	38.66	0.12	0.00
4	1.00	1.24	0.06	0.05
5	2.00	1.41	0.35	0.25
6	1.00	1.34	0.12	0.09
			CHI SQUARED (X^2)=	0.39

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the perception of 'destination efficient' bus routes
PERCEIVED 'DESTINATION EFFICIENT' BUS ROUTES are not contingent upon location

Q. #12.7 Is dependence on others for rides or transportation contingent upon residential location?

	MOUNT	CBD	E-END	
YES	18	10	17	45
NO	25	34	28	87
	43	44	45	132

d.f = (2-1)(3-1)
= 2

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	18.00	14.66	11.16	0.76
2	10.00	15.00	25.00	1.67
3	17.00	15.34	2.75	0.18
4	25.00	28.34	11.16	0.39
5	34.00	29.00	25.00	0.86
6	28.00	29.66	2.75	0.09
			CHI SQUARED (X^2)=	3.96

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the dependence to rely on others for rides or transportation
DEPENENCE ON OTHERS FOR TRANSPORTATION is not contingent upon location

IS PERCIEVED ACCESSIBILITY OF A FACILITY CONTINGENT UPON ACTUAL USE OF A FACILITY?

[THIS IS AN OVERALL MEASURE IN ORDER TO ACCOUNT FOR TRENDS IN THE DATA]

Q. #3.7A Is perceived accessibility to grocery shopping contingent upon the actual use of the facility?
** (Analyzing over entire sample)

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	112	6	118
PERC. NOT ACCESSIBLE	5	4	9
	117	10	127

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	112.00	108.71	10.83	0.10
2	6.00	9.29	10.83	1.17
3	5.00	8.29	10.83	1.31
4	4.00	0.71	10.83	15.29
			CHI SQUARED (X^2)=	17.86

d.f = (2-1)(2-1) = 1

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 1) is 3.841
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the actual use of this facility
and the perceived accessibility to grocery shopping facilities
PERCEIVED ACCESSIBILITY to grocery facilities used is contingent upon actual use

Q. #4.7A Is perceived accessibility to the drug store contingent upon the actual use of the facility?
** (Analyzing over entire sample)

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	108	6	114
PERC. NOT ACCESSIBLE	1	2	3
	109	8	117

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	108.00	106.21	3.22	0.03
2	6.00	7.79	3.22	0.41
3	1.00	2.79	3.22	1.15
4	2.00	0.21	3.22	15.71
			CHI SQUARED (X^2)=	17.30

d.f = (2-1)(2-1) = 1

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 1) is 3.841
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the actual use of this facility
and the perceived accessibility to drug store facilities
PERCEIVED ACCESSIBILITY to drug store facilities used is contingent upon actual use

Q. #5.7A Is perceived accessibility to the bank contingent upon the actual use of the facility?
** (Analyzing over entire sample)

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	117	6	123
PERC. NOT ACCESSIBLE	3	0	3
	120	6	126

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	117.00	117.14	0.02	0.00
2	6.00	5.86	0.02	0.00
3	3.00	2.86	0.02	0.01
4	0.00	0.14	0.02	0.14
			CHI SQUARED (X^2)=	0.15

d.f = (2-1)(2-1) = 1

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 1) is 3.841
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the actual use of this facility
and the perceived accessibility to banking facilities
PERCEIVED ACCESSIBILITY to banking facilities used is contingent upon actual use

* HOWEVER, the relationship would be significant if two non-users percieved the facility
as non accessible rather than accessible

Q. #6.7A Is perceived accessibility to doctor offices or clinics contingent upon the actual use of the facility?
** (Analyzing over entire sample)

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	121	3	124
PERC. NOT ACCESSIBLE	2	1	3
	123	4	127

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	121.00	120.09	0.82	0.01
2	3.00	3.91	0.82	0.21
3	2.00	2.91	0.82	0.28
4	1.00	0.09	0.82	8.68
		CHI SQUARED (X^2)=		9.18

d.f = (2-1)(2-1) = 1

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 1) is 3.841
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the actual use of this facility
and the perceived accessibility to doctor offices and clinics facilities
PERCEIVED ACCESSIBILITY to doctors offices and clinics used is contingent upon actual use

Q. #7.7A Is perceived accessibility to religious centres contingent upon the actual use of the facility?
** (Analyzing over entire sample)

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	45	16	61
PERC. NOT ACCESSIBLE	3	10	13
	48	26	74

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	45.00	39.57	29.51	0.75
2	16.00	21.43	29.51	1.38
3	3.00	8.43	29.51	3.50
4	10.00	4.57	29.51	6.46
		CHI SQUARED (X^2)=		12.08

d.f = (2-1)(2-1) = 1

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 1) is 3.841
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the actual use of this facility
and the perceived accessibility to religious facilities
PERCEIVED ACCESSIBILITY to religious centres used is contingent upon actual use

Q. #8.7A Is perceived accessibility to social or recreational facilities contingent upon the actual use of the facility? ** (Analyzing over entire sample)

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	54	15	69
PERC. NOT ACCESSIBLE	1	4	5
	55	19	74

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	54.00	51.28	7.38	0.14
2	15.00	17.72	7.38	0.42
3	1.00	3.72	7.38	1.99
4	4.00	1.28	7.38	5.75
		CHI SQUARED (X^2)=		8.29

d.f = (2-1)(2-1) = 1

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 1) is 3.841
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the actual use of this facility
and the perceived accessibility to social or recreational facilities
PERCEIVED ACCESSIBILITY to social or recreational centres used is contingent upon actual use

Q. #9.7A Is perceived accessibility to a library contingent upon the actual use of the facility?
** (Analyzing over entire sample)

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	18	37	55
PERC. NOT ACCESSIBLE	0	3	3
	18	40	58

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	18.00	17.07	0.87	0.05
2	37.00	37.93	0.87	0.02
3	0.00	0.93	0.87	0.93
4	3.00	2.07	0.87	0.42
			CHI SQUARED (X^2)=	1.42

d.f = (2-1)(2-1) = 1

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 1) is 3.841
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the actual use of this facility
and the perceived accessibility to Library facilities
PERCEIVED ACCESSIBILITY to libraries frequented is contingent upon actual use

* HOWEVER, the relationship would be significant if one non-users percieved the facility as non accessible rather than accessible if and only if three of the seniors who use the facility perceived it as non accessible

For example, if the distribution had been as follows, the relationship would have been statistically significant:

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	15	39	54
PERC. NOT ACCESSIBLE	3	1	4
	18	40	58

CHI SQUARED would have been 3.88

Q. #10.7A Is perceived accessibility to a places to eat out contingent upon the actual use of the facility?
** (Analyzing over entire sample)

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	54	24	78
PERC. NOT ACCESSIBLE	0	6	6
	54	30	84

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	54.00	50.14	14.88	0.30
2	24.00	27.86	14.88	0.53
3	0.00	3.86	14.88	3.86
4	6.00	2.14	14.88	6.94
			CHI SQUARED (X^2)=	11.63

d.f = (2-1)(2-1) = 1

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 1) is 3.841
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the actual use of this facility
and the perceived accessibility to places to eat out
PERCEIVED ACCESSIBILITY to place to eat out is contingent upon actual use

Q. #11.7A Is perceived accessibility to a parks contingent upon the actual use of the facility?
** (Analyzing over entire sample)

	USE OF FACILITY: USE	DON'T	
PERCEIVED ACCESSIBLE	28	25	53
PERC. NOT ACCESSIBLE	4	18	22
	32	43	75

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	28.00	22.61	29.02	1.28
2	25.00	30.39	29.02	0.95
3	4.00	9.39	29.02	3.09
4	18.00	12.61	29.02	2.30
			CHI SQUARED (X^2)=	7.63

d.f = (2-1)(2-1) = 1

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 1) is 3.841
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the actual use of this facility
and the perceived accessibility to parks
PERCEIVED ACCESSIBILITY to parks is contingent upon actual use

FUTURE FOCUS OF ACCESSIBILITY AND RESIDENTIAL LOCATION

Q. #13.1 Would you consider accessibility to services in a future residential relocation?

	MOUNT	CBD	E-END	
YES	35	34	39	108
NO	6	10	6	22
	41	44	45	130

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	35.00	34.06	0.88	0.03
2	34.00	36.55	6.52	0.18
3	39.00	37.38	2.61	0.07
4	6.00	6.94	0.88	0.13
5	10.00	7.45	6.52	0.88
6	6.00	7.62	2.61	0.34
			CHI SQUARED (X^2)=	1.62

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is LESS THAN THE CRITICAL VALUE
NO relationship exists between the 3 locations and the
consideration of accessibilty to services as part of a residential relocation
CONSIDERATION OF ACCESSIBILITY TO SERVICES IN A FUTURE RESIDENTIAL RELOCATION is not contingent upon locatio

Q. #13.2 How would you perceive your accessibility to services; living near/in the downtown core of Hamilton?

	MOUNT	CBD	E-END	
BETTER	4	37	16	57
WORSE	31	2	22	55
	35	39	38	112

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	4.00	17.81	190.79	10.71
2	37.00	19.85	294.18	14.82
3	16.00	19.34	11.15	0.58
4	31.00	17.19	190.79	11.10
5	2.00	19.15	294.18	15.36
6	22.00	18.66	11.15	0.60
			CHI SQUARED (X^2)=	53.17

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the
consideration of having better/worse accessibilty to services in lieu of a downtown location
PERCEIVED ACCESSIBILITY TO SERVICES IN A DOWNTOWN location is contingent upon present residential location

Q. #13.3 How would you perceive your accessibility to services; living near/in the east-end of Hamilton?

	MOUNT	CBD	E-END	
BETTER	3	3	37	43
WORSE	21	27	2	50
	24	30	39	93

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	3.00	11.10	65.56	5.91
2	3.00	13.87	118.18	8.52
3	37.00	18.03	359.78	19.95
4	21.00	12.90	65.56	5.08
5	27.00	16.13	118.18	7.33
6	2.00	20.97	359.78	17.16
			CHI SQUARED (X^2)=	63.95

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the
consideration of having better/worse accessibilty to services in lieu of an east-end location
PERCEIVED ACCESSIBILITY TO SERVICES IN AN EAST-END location is contingent upon present residential location

Q. #13.4 How would you perceive your accessibility to services; living on the Hamilton mountain?

	MOUNT	CBD	E-END	
BETTER	37	10	1	48
WORSE	1	17	30	48
	38	27	31	96

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	37.00	19.00	324.00	17.05
2	10.00	13.50	12.25	0.91
3	1.00	15.50	210.25	13.56
4	1.00	19.00	324.00	17.05
5	17.00	13.50	12.25	0.91
6	30.00	15.50	210.25	13.56
			CHI SQUARED (X^2)=	63.05

d.f = (2-1)(3-1)
= 2

Critical Value [the probability that the relationship is due to chance] is p < 0.05
(with d.f = 2) is 5.991
SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the
consideration of having better/worse accessibilty to services in lieu of a mountain location
PERCEIVED ACCESSIBILITY TO SERVICES IN A MOUNTAIN location is contingent upon present residential location

Q. #13.5 Given the opportunity, where in Hamilton would you choose to live; CBD, East-End or Mountain location?

PREFERENCE	PRESENT LOCATION MOUNT	CBD	E-END	
CBD	1	36	2	39
E-END	1	3	40	44
MOUNT	40	4	2	46
	42	43	44	129

CELL	OBSRVD	EXPCT'D	(O-E)^2	(O-E)^2/E
1	1.00	12.70	136.84	10.78
2	36.00	13.00	529.00	40.69
3	2.00	13.30	127.74	9.60
4	1.00	14.33	177.57	12.40
5	3.00	14.67	136.11	9.28
6	40.00	15.01	624.61	41.62
7	40.00	14.98	626.16	41.81
8	4.00	15.33	128.44	8.38
9	2.00	15.69	187.41	11.94
			CHI SQUARED (X^2)=	124.37

d.f = (3-1)(3-1)
= 4

Critical Value [the probability that the relationship is due to chance] is $p < 0.05$
(with d.f = 4) is 9.488

SINCE CHI SQUARED is GREATER THAN THE CRITICAL VALUE
A relationship exists between the 3 locations and the preference of where one would prefer to live within the city of Hamilton
PREFERENCE FOR SPECIFIC RESIDENTIAL LOCATIONALS IN HAMILTON FOR SENIORS is contingent upon their present location

CONTINGENT: -liable but not certain to happen
-possible
-occuring by chance; accidental

CONTINGENCY: -uncertainty of occurance
-the condition of being subject to chance or accident
-unforseen but possible occurance
-something incidental

ENDNOTES

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