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FACTORS INFLUENCING OLDER ADULTS' PATTERNS
OF INFORMATION ACQUISITION

DISSERTATION

Presented to the Graduate Council of the
University of North Texas in Partial
Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

By

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Denton, Texas

May, 1989

Barnett, Mary J., Factors Influencing Older Adults' Patterns of Information Acquisition. Doctor of Philosophy (Library and Information Sciences), May, 1989, 510 pp., 178 tables, bibliography, 100 titles.

A group of 101 older adults (sixty-five years of age and over) who lived independently in three retirement apartment residences in Denton, Texas, were asked about their patterns of reading, television viewing, and radio listening habits for two periods in their lives: (1) at age forty to fifty-five and (2) at the present.

Respondents were asked about their use of external information sources (public library, grocery store, newsstand, etc.) and their use of proximate information sources (radio, friends/relatives, television, etc.) They were also asked about access to transportation, income satisfaction, status of general health, vision, hearing, physical mobility and reasons for utilizing various information sources.

Four hypotheses relating changes in health, environment, economic status, and education to reasons for reading and use of information sources were tested through the use of t-tests, regression analysis and analysis of variance.

Within this group of older adults, use of external

information sources decreased from the past to the present. There was, however, no change in the use of information sources located in or near the residence as difficulties in these areas increased. A relationship was found between educational level and reading for pleasure earlier in life. Also, those with higher educational levels reported fewer differences in their reasons for reading in the present and in the past.

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ACKNOWLEDGEMENTS

My advisor, Dr. Rose Mary Magrill, and the other committee members, Dr. Herman L. Totten, Dr. Kenneth L. Ferstl, Dr. Cora A. Martin, and Dr. Daniel W. Wong, provided invaluable guidance and support during this project. The faculty and staff of the School of Library and Information Sciences, specifically Dean Raymond F. Vondran, Dr. Dewey E. Carroll, Dr. Donald B. Cleveland, Paula Kelly, and Cathy Wilkinson, were also most helpful.

Several other individuals deserve mention. Dr. James L. Thomas of the School of Library and Information Studies at Texas Woman's University, along with Rebecca Mulroy and Helen Brooks of the Center for Rehabilitation Studies at the University of North Texas were very supportive. A special acknowledgement must be made in remembrance of Dr. Doralyn J. Hickey, who served as my advisor during earlier stages of this project. Dr. Hiram J. Friedsam, Phyllis Eccleston, and Patrick Maguire also provided inspiration and support.

Words are inadequate to express my heartfelt thanks to my family, especially Ellen Hamilton, Craig Hamilton, and Paul Hamilton, for their many expressions of support. Finally, I must thank my mother, Mary E. Barnett, with all my love, because her love and support never failed.

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CHAPTER 1

INTRODUCTION

Over the last thirty years, census reports have documented radical shifts in the age composition of the population in the United States, and demographers have evaluated the importance of these changes for society as a whole. To summarize, "at the beginning of this century, less than one in ten Americans was age 55 and over and one in 25 was age 65 and over. By 1984, one in five Americans was at least 55 years old and one in nine was at least 65."¹ (fig. 1)

The growth of this age group as a portion of the population as a whole will continue well into the next century as the result of several interrelated factors. Increases in longevity, varying levels of fertility, and the resulting change in the proportion of younger people to older people will contribute to the change in the demographic balance in society. These changes are historically unprecedented and will have far-reaching consequences for many societal institutions (fig. 2).

¹Congress, Senate, Special Committee on Aging, America in Transition: An Aging Society; 1984-85 Edition, information paper prepared by the staff of the Special Committee on Aging, United States Senate, 99th Cong., 1st sess., 1985, Committee Print, Serial No. 99-B, 7.

Population 55 Years and Over by Age: 1900-2050

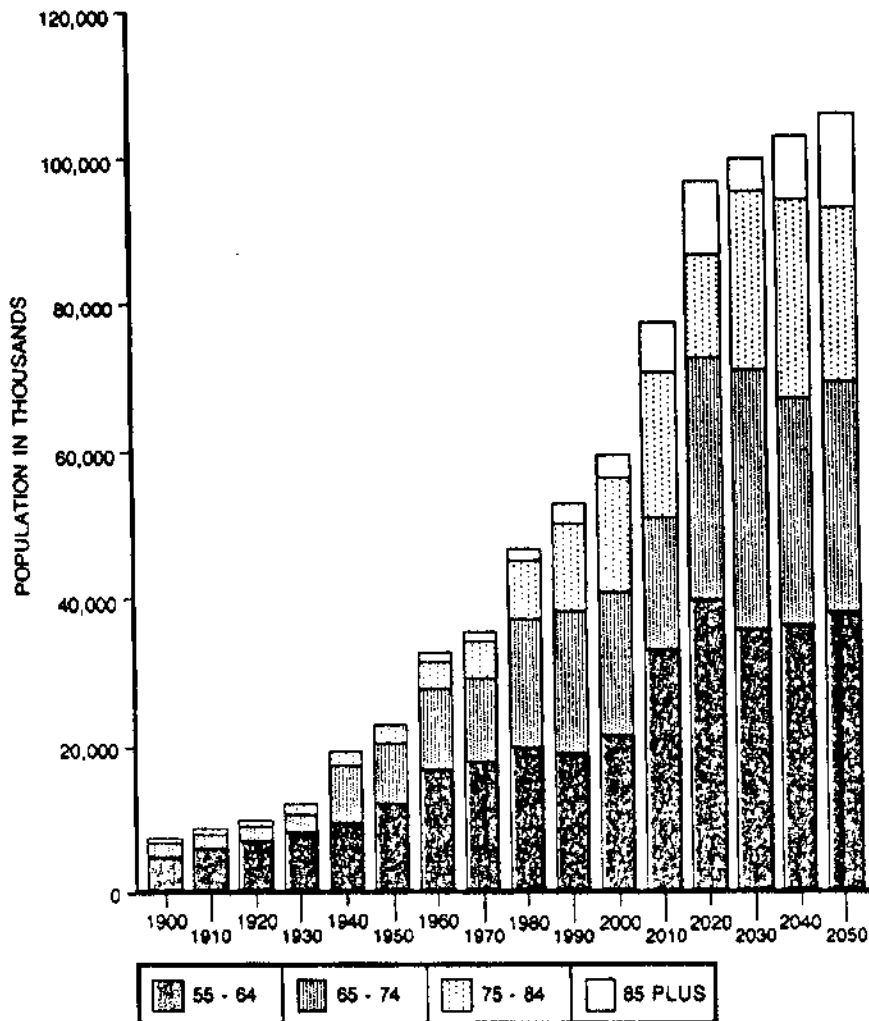


Fig. 1--Source: U.S. Census of Population, 1890-1980 and projections of the population of the United States: 1983-2080. Current Population Reports, Series P-25, No. 952, middle series. In Aging America: Trends and Projections--1985-86 Edition, prepared by the U.S. Senate Special Committee on Aging in conjunction with the American Association of Retired Persons, the Federal Council on the Aging, and the Administration on Aging, Washington, D.C: U. S. Department of Health and Human Services, [1986], 13.

It is commonly assumed that today's large numbers and proportion of older persons is [sic] caused by increased longevity. In fact, the rise in longevity explains only part of the increase. The primary cause is an increase in the annual number of births prior to 1920 and after World War II. The aging of the pre-1920's group, along with a dramatic decline in the birth rate after the mid-1960's, has contributed to the rise in the median age of the U.S. population from 28 in 1970 to 31 in 1984. A 3-year rise in the median age in 14 years is a historic demographic event. . . .

One of the most dramatic examples of the changing age distribution of the American population is the shift in the proportion of elderly in relation to the proportion of young persons. . . . In 1900, 4 percent of the population was age 65 and over while young persons, age 0-19 years, made up 44 percent of the population. By 1980, the proportion of 65-plus persons had increased to 11 percent and the proportion of young persons had decreased to 32 percent. U.S. Census Bureau forecasts predict that, by the middle of the next century, the proportion of young persons and elderly will be almost equal, with persons 0 to 19 years equaling 23 percent and the elderly equaling 22 percent of the population.²

The age distribution of the portion of the population that will be sixty-five years of age and over will also alter. The numbers of the very old (85 and over) will increase. The proportion of men will also tend to decrease in proportion to the number of women among those 85 and over.

The 85-plus population . . . is also expected to triple in size between 1980 and 2020 and increase seven times between 1980 and 2050. . . . In 1984, there were 81 men between 65 and 69 years for every 100 women in that same age group. Among those 85 and over, there were only 40 men for every 100 women. . . . These statistics reflect the fact that, on the average, women live longer than men and, therefore, are more likely to end up living alone.³

²Ibid., 9, 12.

³Ibid., 13, 16.

Young, Elderly, and Total Support Ratios, 1900-2050

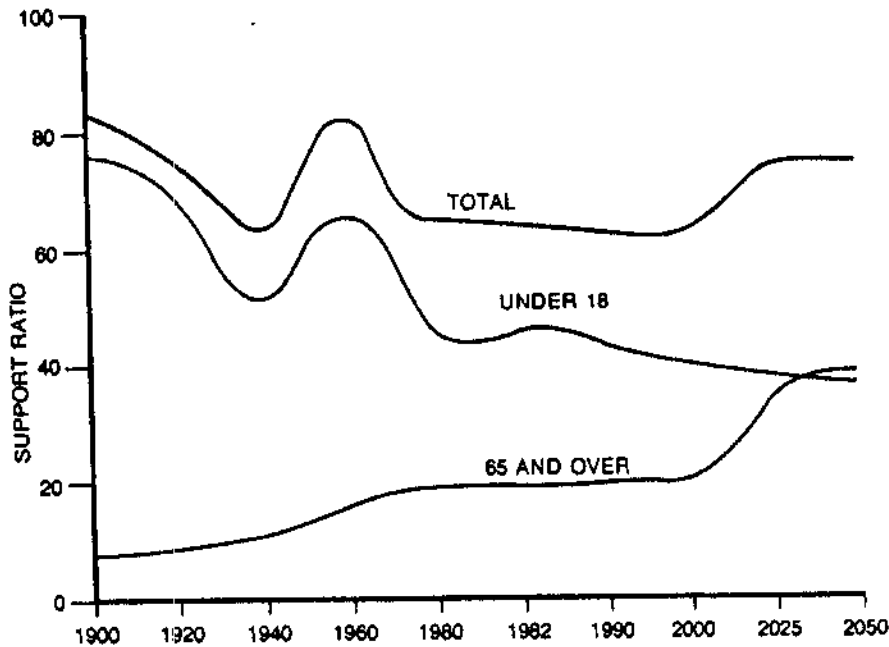


Fig. 2--Source: U.S. Bureau of the Census, Decennial Census of Population, 1900-1980; Current Population Reports, Series P-25, No. 952, middle series. In Aging America: Trends and Projections--1985-86 Edition, prepared by the U.S. Senate Special Committee on Aging in conjunction with the American Association of Retired Persons, the Federal Council on the Aging, and the Administration on Aging, Washington, D.C: U. S. Department of Health and Human Services, [1986], 20.

The racial and ethnic composition will also shift. Presently, "whites are disproportionately represented in the elderly population, [but] . . . by 2025, 15 percent of the elderly population is expected to be nonwhite and in 2050 this figure is expected to reach 19 percent."⁴

Many societal institutions, such as libraries and other types of information organizations, the workplace, educational institutions, and health care settings will be affected, directly and indirectly, by this transition. The growth of this segment of the population will require the development of responses to its needs. Accommodating the needs of older adults can benefit not only the elderly, but society as a whole. Commenting on the benefits that society can derive, Dr. Eric Pfeiffer, a noted gerontologist, states:

Older persons . . . are facing problems head-on now and personally, that the rest of us as a society will face a little ways down the road. . . . and they are trying to work out for themselves some kinds of answers to these problems. I think we have an opportunity to work with them to see what will suffice. I think . . . that if you design . . . communities that are truly communities with interaction for the elderly, you will have learned how to design communities for all of us, and in this sense I think aging can be considered not a

⁴Ibid., 16.

national disgrace but a cause for national celebration. . . .⁵

Libraries and information organizations may benefit by learning to develop collections that are accessible to older adults in terms of print quality, arrangement, and methods of service delivery and may become more accessible for all. The workplace may benefit by continuing to utilize skilled workers regardless of their age and invaluable skills may be retained in the work force. Educational institutions may refine and develop teaching methods and curricula which stimulate and develop older minds and more may be learned about those processes. Health care settings may investigate and learn to treat conditions that were formerly considered untreatable and expand the frontiers of medical knowledge. In the process, knowledge will be developed that will transfer to other areas and so, benefit all.

In order to understand the needs of older adults and to plan and develop services for them, it will be necessary to analyze this segment of society in terms other than its numeric proportion in the population. Fortunately, the subjects of the health and educational levels of older adults have been of particular interest to demographers.

⁵Eric Pfeiffer, speech given at Case Western Reserve University, [Cleveland, Ohio], April 1974, quoted in Congress, General Accounting Office, Conditions of Older People: National Information System Needed, HRD-79-95, (Washington, D.C.: U.S. General Accounting Office, 1979), 2.

Health and Educational Characteristics
of Older Adults

In contrast to the stereotype often associated with old age,

. . . older people, on the average, view their health positively. According to results of the 1982 Health Interview Survey . . . 65 percent of elderly persons living in the community [described] their own health as excellent, very good, or good, compared with others of their own age; only 35 percent [reported] that their health [was] fair or poor.⁶

This assessment does not deny that most older adults will experience, to some degree, the decrements of normal aging, such as declines in general health, vision, hearing, or physical mobility. Limitations in activities of daily living resulting from health conditions do tend to increase with age. Among the non-institutionalized elderly, approximately "19 percent of 65-plus persons have some degree of limitation (mild to severe). . . . [and] four percent of the elderly population is severely disabled. . . ." ⁷ But, only about 5 percent of the elderly population live in nursing homes at any one time, contrary to stereotypical assumptions.⁸

In terms of educational attainment, the elderly tend to fall below the younger population, although the gap is ex-

⁶Senate, Special Committee on Aging, America in Transition 1984-85, 63.

⁷Ibid., 64.

⁸Ibid., 73.

pected to narrow in the future. "In 1982, the elderly were about 60 percent as likely to have graduated from high school (including those who graduated from college) as the entire population 25 years and over."⁹

The lack of educational opportunities available to various racial and ethnic groups in previous years and the history of immigration in the United States may account for some of the variation in educational level in the population of older adults.

While 33 percent of elderly whites completed high school, only about 16 percent of elderly blacks reached that level. In terms of higher education, about 10 percent of elderly whites attended 4 or more years of college, as compared with about 3 percent of elderly blacks.¹⁰

Today's elderly population also has a much higher proportion of foreign-born members than does the younger population. "The elderly foreign born have a higher rate of illiteracy and lower educational attainment than the native population."¹¹ In the future, there is likely to be less discrepancy in educational levels among the young, the old, and various racial and ethnic groups.

Thus, for the present, this older stratum of society may be composed, for the most part, of relatively healthy,

⁹Ibid., 88.

¹⁰Ibid.

¹¹Ibid.

mobile, and adequately (though not necessarily highly) educated adults. In the future, the educational attainment of older adults may increase, as well. Their lifestyle is likely to be far removed from that of the sad, stereotypical image commonly associated with the institutionalized aged confined to nursing homes. Rather, it is more likely to be a lifestyle characterized by continued residence in the community, where compensatory strategies have been developed to allow individuals to cope successfully with the decrements of normal aging and to function independently.

The rate of change toward an aging society will be an uneven one. As census data indicate:

Essentially, we will enjoy a period . . . when there will be sustained but undramatic growth in the elderly population. But then, in 2010, there will come a remarkable surge in the numbers of older persons as the post-war baby boom matures. In less than thirty years, an aging society will be upon us, whether we have prepared for it or not. If we anticipate and plan for this momentous social event now, individuals and families can still adjust their own expectations and plan for their futures. The foreseeably great magnitude of these events challenges our capacity to adapt public policy far enough in advance to be successful and sets the overall context for the decisions made today regarding the aged and aging in America.¹²

¹²Department of Commerce, Bureau of the Census, America in Transition: An Aging Society, by Cynthia M. Taeuber, Current Population Reports, Series P-23, no. 128, (Washington, D.C.: GPO, 1983), 25.

Older Adults' Needs for Information Acquisition

In a free society, the ability to acquire information for a variety of purposes without censorship or other restrictions is taken for granted in everyday life. The free flow of information is generally regarded as beneficial, resulting in an informed, educated citizenry which is able to make wise decisions about matters of concern, whether personal or social. The free flow of information is also generally regarded as a stimulus to personal, artistic, and economic creativity, resulting in an improved quality of life. Conversely, restrictions on the free flow of information are generally regarded negatively, as inhibitors of education and creativity, leading to a reduced quality of life.

Generally, the removal of barriers to the free flow of information is regarded in a positive light. In fact, the history of librarianship and public education in this country is full of examples of the broadening of these activities to include more, rather than fewer, groups of people.

Denial of Access because of Negative Perceptions

The lack of social perception of the needs of various groups for library service or extensive education has often resulted in limited access for those groups. At various times, women, blacks, Hispanics, native Americans, the blind and other individuals with disabilities, and many other ra-

cial and ethnic minorities have been the victims of negative social stereotyping, asserting their limited potential to benefit from the provision of library services or education.

Consequently, there has been denial of physical access to the facilities from which library services or education could be obtained. Denial of access has not always been overt, but has sometimes been the result of a failure to perceive that barriers exist, and that a particular group is not utilizing library or educational resources to the greatest extent possible.

Governing societal authorities have often participated in the negative stereotyping of many of these same groups. In time, increased access has been achieved through the efforts of members of the affected groups, interested advocates, and legislative changes which, with changing public opinion, have provided the incentives for societal authorities to investigate existing barriers, remove them, and increase access.

Recently, older adults have been recognized as a group who have suffered from negative social stereotyping. Numerous advocates have noted the needless existence of barriers to access to library services and education for older adults, with consequent under-utilization of such resources by this group.

Gradually, increased attention has been focused on the existence of barriers that may inhibit an older adult's use

of information resources. As an individual ages, physical changes that may accompany age (e.g., poor vision, resulting in the loss of the ability to drive a personal car) may cause changes in lifelong patterns of information acquisition, as might the limitations imposed by dependence on a fixed income. An individual may have to choose alternative information sources and channels of distribution or, if satisfactory alternatives cannot be found, have to discontinue use of certain sources and channels of distribution. Consequently, some sources and channels of distribution may suffer from under-utilization by older adults, while other sources and channels of distribution may gain in use by this group.

Framework for the Study

Since this study will collect data on many facets of older adults' patterns of information acquisition, the following discussion will provide the background to illustrate how the various data elements, in combination, may interact to influence those patterns.

Information Acquisition and Information Sources

For the purpose of this study, information acquisition is defined as the cognitive assimilation of information through the senses from one or more sources--through vision from print or video sources, through hearing from audio

sources or through the audio portion of video sources, or through the tactile sense from braille (a print alternative) or technologies such as the Optacon--of necessity, to make decisions in daily life, or by choice, for pleasure or entertainment.

Information Sources, Channels of Distribution, and Physical Capabilities

Each source (print, video, audio, or tactile) can be distributed through one or more channels of distribution. The following examples are illustrative, not comprehensive. Print sources may be distributed through libraries, retail outlets, or postal delivery. Video and audio sources may be distributed through broadcast programming (television and radio) over communications frequencies with reception by appropriate receivers, or, in the case of video and audio cassettes or recordings, by libraries, retail outlets, or postal delivery. Tactile sources, like braille, may be distributed by mail delivery through the National Library Service for the Blind and Physically Handicapped.

Information acquisition, then, can be thought of as an interactive process involving an individual with one or more types of sources for information and one or more channels of distribution. An individual must have adequate sensory and physical capabilities appropriate to the source and channel(s) of distribution to be utilized. Research by the National Library Service for the Blind and Physically Handi-

apped provides a detailed analysis of the sensory and physical capabilities needed to utilize information from several types of information sources: regular print, large print, braille, records, cassettes, and being read to by another person.¹³

Although the presence of some level of sensory impairment may still allow for the utilization of a specific information source and an associated channel of distribution, at some threshold level of impairment it becomes impossible to obtain information through the channel. For instance, visual impairment to the point of blindness prevents the utilization of regular print or the visual component of video sources and, consequently, leads to decreased use of the associated channels of distribution for those sources. However, compensatory strategies making use of one or more still-intact sensory organs may continue to allow information acquisition. For example, in the case of blindness, an individual with adequate auditory and tactile capabilities has access to audio sources, such as recordings on disc or tape, radio, and the audio component of television, as well

¹³Marvin Berkowitz and others, Characteristics, Activities, and Needs of People with Limitations in Reading Print, vol. 2, A Survey to Determine the Extent of the Eligible User Population Not Currently Being Served or Not Aware of the Programs of the Library of Congress National Library Service for the Blind and Physically Handicapped (New York: National Library Service for the Blind and Physically Handicapped and the American Foundation for the Blind, 1979), 99-100, ERIC, ED 197 751.

as to braille and the Optacon, which make use of the tactile sense.

Hearing impairment may limit the use of the radio or the audio portion of television, but the closed captioning of television programs allows an individual to compensate for any hearing loss, while adequate visual capability allows television to remain an important means of information acquisition. Similarly, hearing impairment in the elderly unaccompanied by visual impairment usually has no impact on the reading of regular print.

Individual Nature of the Aging Process and Patterns of Information Acquisition

Aging is, inevitably, a universal physiological process, varying only in degree among individuals. Declines in an individual's physiological capacities may influence the pursuit of social activities and, in turn, account for changes in interaction with the institutions of modern society. This is no less true for information sources and channels of distribution.

Declines in sensory and physiological capacities vary greatly among individuals. In some instances, it may be apparent that there is a marked overall decline in the senses and in physiological capacities. In other instances, there may be only mild, slow declines in physiological capacity and slight declines in one or more sensory capabilities. Stereotypical generalizations of the aging as being in poor

health and suffering from impaired mental capability, with the majority residing in nursing homes, are grossly inappropriate.

Patterns of information acquisition are also highly individualized, having been developed through a lifetime of experiences, beginning in childhood and evolving through middle age and old age through interaction with a variety of sources for information and channels for distribution of information products. Older adults have witnessed the emergence of many new information products and technologies, which children born recently may take for granted.

Methods for Information Acquisition and Changes Over Time

Reading is one method for information acquisition that is of primary importance to a literate society. The development and encouragement of reading skills early in life constitute a major focus of early childhood education and continue throughout other educational experiences. Books were undoubtedly available (at some time in their early lives) to many of today's older adults. However, at some time in their memories, the inexpensive paperback was a novelty.

In modern society, other methods for information acquisition exist along with, and provide alternatives to, reading. Communications technologies, as they have developed in

the twentieth century, have provided a variety of additional means for information acquisition.

Television is presently a part of the lives of children almost from birth, but for earlier generations, it may have come into their lives only during adulthood. Color television was once a major innovation, as stereo sound for television is now. The videocassette player/recorder, and the wide availability of videocassettes for rental, are other recent phenomena.

Radio is available as still another channel for information acquisition, and for those presently sixty-five years of age and over, may have been more important in their early adult years, due to its dominance before the introduction of television. Recordings, in the form of records or tapes, have been available for a number of years in various formats and constitute another method for information acquisition. But tape cassettes have gradually replaced reel-to-reel and eight-track formats, and the compact disc is replacing other recorded disc formats.

Each innovation requires time for acceptance and assimilation for use. Since many are technological innovations, their popularity may rise and fall, as each type of technology becomes accepted and popular and is obtained for use. Over time, one type of technology may dominate, if not re-

place another, as has been the case with television and radio.

Discretionary Versus Obligatory Activities and
Approaches to the Physical Retrieval of
Information Sources

The amount of time spent reading may vary over the course of a lifetime due to any number of factors, as might the time devoted to television viewing and radio listening. Gerontologists define activities as obligatory or discretionary. "'Obligatory activities' are self-maintaining and instrumental behaviors that are relatively highly programmed and whose time demands are, for the adult population, considered relatively invariant," whereas discretionary activities are "social and personal leisure-time activities."¹⁴

In the life of an individual at various times, information acquisition may be considered either obligatory or discretionary. When information acquisition is undertaken out of necessity, in order to maintain adequate food, clothing, shelter, or health, it may be considered obligatory. When information acquisition is undertaken voluntarily, for pleasure or entertainment, it may be considered discretionary.

The purpose for using an information source can be a critical factor in determining whether a source continues to

¹⁴M. Powell Lawton, "The Impact of the Environment on Aging and Behavior," in Handbook of the Psychology of Aging, ed. James E. Birren and K. Warner Schaie (New York: Van Nostrand Reinhold, 1977), 281.

be used. One major study has shown that individuals who read for pleasure read more, and so make greater use of libraries and bookstores than those who read only for information, out of necessity.¹⁵ Even a great interest in continuing to read can, however, be affected by other factors. No matter how great the desire to read, eventually the urge to read may be frustrated, for instance, by a visual impairment severe enough to cause reliance on the limited number of titles available in large print or as books on tape.

Choices among Channels of Distribution

As an individual ages and the impact of the physical decrements of aging are felt, lifelong patterns of information acquisition may be altered. An individual's physical capabilities may influence choices among several different channels of distribution when a source is distributed through more than one channel.

This can be clarified by considering the approach used by each channel of distribution to physical retrieval of sources of information and the action that must be taken by an individual desiring access to a particular channel of distribution. Each channel of distribution treats location in a different way and has correlated approaches to individ-

¹⁵Yankelovich, Skelly, and White, Consumer Research Study on Reading and Book Purchasing, ([New York]: The Book Industry Study Group, 1978), 27, 184-185, 213.

ual mobility. These may be categorized as the centralized, or external, approach and the decentralized, or proximate, approach.¹⁶

The centralized-external approach to location allows for the collection of sources of information in one physical facility and assumes that an individual will take the responsibility for coming to the facility to use a source or to borrow or purchase a source for later utilization at the individual's residence or another location. The decentralized-proximate approach to location allows an individual to arrange for the delivery of a specific source, or receive a broadcast transmission, at the residence or another location determined by the individual.

Access to centralized-external locations through regular and continued use is dependent upon certain criteria. An individual must possess personal physical mobility and health adequate to allow movement from one location (for purposes of this study, a residence) to the centralized-external location and back to the residence. The absence of vision and the ability to walk do not absolutely preclude the utilization of such locations, since some progress has been made in adapting such locations for use by those with severe visual impairments and by people in wheelchairs.

¹⁶"Centralized-external" and "decentralized-proximate" are terms devised by the researcher, although Lawton and Golant both refer to "proximate" locations--locations which are geographically close to older adults.

However, in order to cover all but the shortest distances between a residence and a centralized-external location with regularity and convenience, it is usually necessary to have access to transportation.

Reliable access to transportation by ownership of a personal or family car or by public transportation provide common means of meeting this need. It is possible to modify personal vehicles for use by those in wheelchairs, but an individual is prevented from driving a personal car by severe visual impairment. Public transportation, such as buses, subways, or taxis, when available, may be used regardless of the severity of visual impairment but, conversely, may be difficult or impossible to use for those in wheelchairs unless vehicles have been modified to allow such use.

In decentralized-proximate approaches to distribution, the element of transportation becomes the responsibility of the distributor, or an intermediary, and the individual need not possess as high a degree of personal physical mobility. Newspaper delivery can be accomplished by an individual on foot, bicycle, or car via a paper route, and the newspaper is delivered directly to the residence. Mail delivery can be accomplished by an employee of the post office on foot or by vehicle, again with direct delivery to a residence. In some instances, transportation is a minor issue or not an issue at all. Television and radio broadcasting require

only that a receiver be available (perhaps initially obtained by means of transportation) for regular and continued use in the residence or other location of an individual's choice.

In regard to centralized-external locations, in some cases, the distribution of materials for reading is a major purpose of a particular type of location, such as libraries, bookstores, or newsstands. In other cases, reading materials are only one type of item which are distributed at the location. Department stores, grocery stores, and discount stores are examples of this type of location. The home of a friend or relative, where the major purpose for visiting may be social activities, is another type of setting where reading materials or information may be obtained through exchange.

The elements of health, mobility, and transportation may influence choices among channels of distribution. Health decrements, causing decreased mobility and limited access to transportation, may cause an individual to choose centralized-external channels of distribution where more than one purpose can be accomplished in one trip. For instance, a trip to purchase groceries may also allow an individual to purchase books and magazines.

Similarly, the elements of health, mobility, and transportation may influence choices among centralized-external and decentralized-proximate channels of distribution.

Health decrements and lack of access to flexible means of transportation may increase the attractiveness of decentralized-proximate channels of distribution.

In regard to decentralized-proximate approaches to information delivery, individuals may also make use of reading materials previously collected and available at their residence, such as a personal collection. If more than one individual lives at a residence, the reading materials and information collected by one are usually available to all. In some cases, one individual may read aloud to another individual from materials already obtained. Friends and relatives may also play a role; if personal physical mobility is limited, friends and relatives may serve as a delivery service by bringing reading materials and providing access to transportation.

Environmental Constraints on the Information Acquisition Activities of Older Adults

A number of constraints on the delivery of service exist in present systems and may affect the use of channels of distribution by older adults. Some have already been recognized, such as the limited availability of titles in large print and as books on tape. Architectural barriers, despite improvement in many situations, still exist in far too many cases because of thoughtlessness, bad design, or limited funds for modification.

Perhaps the most severe constraint is the necessity, in most instances, for the individual to have access to transportation in order to get to information sources housed in centralized-external locations. The loss of bookmobiles as alternative delivery mechanisms for libraries, as well as the failure to develop alternatives such as books by mail on a large scale, limits an individual essentially to choices among centralized-external locations, often located at some distance from an individual's residence.

If a person becomes unable to drive, which happens increasingly as older adults age, the ability to obtain information sources becomes very restricted. Due to their decentralized-proximate approach to location, ownership of television and radio receivers, which is within the means of all but those with the most meager incomes, may continue to provide easy access to the larger world. Television viewing, not surprisingly, remains a favorite activity of older adults, in spite of difficulties posed by declines in vision and hearing. Listening to the radio also remains a popular activity.

Personal Constraints on the Information Acquisition Activities of Older Adults

Despite the relatively good health of many older adults, the process of aging in biological terms is associated with inevitable declines in overall physical functioning. Scientists have exhaustively documented the

decrements accompanying "normal" aging. Homeostasis, the body's ability to maintain equilibrium among its systems after activity, suffers a universal, general decline.¹⁷ Losses in vision and hearing are common. Mobility impairments resulting from a variety of causes are also frequent.

Singly, or more often in combination, decrements can prevent older adults from using the information sources and channels of distribution to which they may have become accustomed earlier in life. The reduction of the body's ability to restore equilibrium after activity can make stairs very difficult to use and, on the whole, may increase the impact of architectural barriers. Even the normal activities associated with library use, such as looking in several areas of a library for materials, browsing for extended periods of time, and carrying stacks or bags of materials into, out of, or through the library, can become so tiring that an individual may choose to avoid the activity.

Loss of vision is, of course, the impairment that might be thought to have the greatest impact on an individual

¹⁷Joseph A. Koncelik, "Human Factors and Environmental Design for the Aging: Aspects of Physiological Change and Sensory Loss as Design Criteria," in Environmental Context of Aging: Life-styles, Environmental Quality, and Living Arrangements, ed. Thomas O. Byerts, Sandra C. Howell, and Leon A. Pastalan, (New York: Garland STPM Press, 1979), 108.

accustomed to reading a variety of print sources. Even the relatively mild degree of impairment associated with wearing bifocals can make browsing in libraries or bookstores difficult. Severe visual losses, including blindness, become more common with age and can force dependence on large print, books on tape, or the National Library Service for the Blind and Physically Handicapped, which, unfortunately, can provide access to only a small portion of the materials available in regular print. Visual decrements may limit the ability to drive a personal car and thus may decrease a person's capability to reach centralized-external channels of distribution from which regular print, large print, and books on tape may be obtained.

Hearing impairments can lead to isolation, in the sense that individuals may be reluctant to place themselves in social situations in which such impairments may prove embarrassing. Talking with a reference librarian or a salesperson in a bookstore is an activity which may be avoided because it is frustrating, causes anxiety, or is otherwise troublesome as a result of such impairment.

Mobility impairments such as those resulting from arthritis and stroke may also effectively inhibit the use of a variety of information sources and channels of distribution. When associated with the decline in homeostasis and the existence of architectural barriers, mobility impairments may combine to keep the individual from using librar-

ies or information centers that were easily accessible when he or she was younger. In the most severe instances of mobility impairment, it becomes difficult for the individual to hold books to read, or to operate the record players or tape recorders necessary to listen to print alternatives such as books recorded on disc or tape.

Many older adults live on relatively fixed incomes. Limitations on income may affect an individual's ability to own and maintain a car, thereby making it more difficult to reach libraries and bookstores. Restrictions on income may also affect a person's ability to purchase materials for reading, or repair or replace televisions or radios. In some cases, the inability to pay library fines may lead to discontinuing use of the library.

Statement of the Problem

This investigation is designed to explore the factors in the life of an older adult that may influence choices of sources and channels of distribution for information acquisition. Besides libraries, bookstores, and other settings housing materials in centralized-external locations, older adults, along with the rest of society, may also choose to satisfy information needs from a wide variety of information sources and channels of distribution. Indeed, the need to acquire reading materials and information, although closely correlated with library use, can be satisfied by means other

than library use. Mass communication channels such as television, radio, newspapers, and magazines may provide attractive alternatives for older adults.

Reading, for the older adult, is largely a discretionary activity. The social pressure of incentives imposed by education and vocation may lie, to a great degree, in the past. Reading is not generally considered to be a life-sustaining activity, as would such activities as going to the grocery store or visiting the doctor. Reading activities for many older adults may indeed be confined to reading their mail or perusing the newspaper to remain informed about current events.

Gerontologists have conducted many studies related to the interaction of the older adult with the environment, and have noted that, for many reasons, the physical environment can become an increasingly imposing barrier for negotiation.¹⁸ Studies in librarianship and information science related to aging have generally indicated that reading and library use often decline with age.¹⁹ Additionally, several environmental adaptations or print alternatives, such as large print, bookmobiles, books by mail, and television, as well as specific print formats, such as magazines and news-

¹⁸Lawton, "The Impact of the Environment", 295-98.

¹⁹Douglas Lough Zweizig, "Predicting Amount of Library Use: An Empirical Study of the Role of the Public Library in the Life of the Adult Public," (Ph.D. diss., Syracuse University, 1973), 209-210.

papers, seem to be very popular with older adults. For some older adults, however, reading is a preferred activity and is continued, in spite of many obstacles. An understanding of the influences which cause older adults to choose to discontinue use of a particular source or channel of distribution or, alternatively, to continue to use a particular source or channel of distribution in spite of the existence of barriers may lead to the modification of existing service delivery systems, to the benefit of older adults.

Obtaining responses for two points in time (ages forty to fifty-five and age sixty-five and over) will allow for a comparison of the variables to be measured. In this way, measurements of increase, decrease, or stability may be obtained and used as indicators of how individual patterns of information acquisition change.

Hypotheses

1. As health, environmental, and economic constraints increase, there will be a decrease in use of information sources that require movement outside the residence.
2. As health, environmental, and economic constraints increase, there will be no decrease in use of information sources that are delivered to the residence.
3. Among older adults who identified pleasure as their primary purpose for reading earlier in life, health, environmental, and economic constraints will show a greater

effect on present use of information sources than for the group that identified information as their primary purpose for reading.

4. The higher the educational level, the less likely that there will be a difference between past and present purpose for reading.

Measurement of Concepts in Hypotheses

The hypotheses include several concepts that will be measured for the past and present using the following variables: (1) Health constraints will be measured by variables for general health, vision, hearing, and physical mobility. Environmental constraints will be measured by variables which indicate access to television, radio, the Radio Reading Service, and transportation. Economic constraints will be measured by variables which indicate income satisfaction, the level of book purchasing for the present (ages sixty-five and over) compared to the past (ages forty to fifty-five) and the importance of price in book purchasing for the present (ages sixty-five and over) compared to the past (ages forty to fifty-five).

The purpose for reading will be measured by a variable asking if reading is regarded as an activity undertaken for information, only out of necessity, or as a pleasurable activity, undertaken by choice. Educational level will be measured by the number of years of formal education

attained. Information sources that require movement outside the residence will be measured by soliciting rankings of such sources from a list. Information sources that are delivered to the residence will be similarly measured.

Models

As an alternative method of visualizing the hypotheses, models have been developed explicating the relationships that will be examined in the study. Since this study will be attempting to collect data representing conditions at two time periods in each respondent's life, it may be possible to examine how individual patterns of use of information sources change. The first model (fig. 3), illustrating hypotheses 1 and 2, proposes that the differences in use of information sources observed in middle-aged adults (forty to fifty-five years) and older adults (sixty-five years and older) may be explained by the increased constraints of health, environment, and economic status, which affect use both directly and indirectly through their influence on purpose for reading.

The second model (fig. 4), illustrating hypotheses 3 and 4, proposes that individuals who read for pleasure during middle age (forty to fifty-five years) are more likely to have their use of information sources in later life affected by health, environmental, and economic constraints than those who read only for information and

that a higher educational level will influence whether an individual reads for pleasure in middle age (forty to fifty-five years) and continues to read for pleasure in later years.

Definitions

The terms used in this study are defined as follows.

Book--A printed, bound, hardback or paperback volume, in regular or large print, or the equivalent in the alternative audio or tactile formats provided by the National Library Service for the Blind and Physically Handicapped.

Book reader--In this study, one who read (visually or tactilely) or listened to at least one book in an average six-month period between ages 40 and 55, or one who had read (visually or tactilely) or listened to at least one book in the six-month period preceding administration of the interview schedule at age 65 or older.

Channel of distribution--The means by which an information source is distributed: centralized-external location or decentralized-proximate method of distribution, including broadcast programming or postal delivery.

External channel of distribution--A channel of distribution which uses a centralized approach to location, requiring an individual to leave the residence, obtain a desired information source, use it at the location, or borrow or purchase the information source for later use at

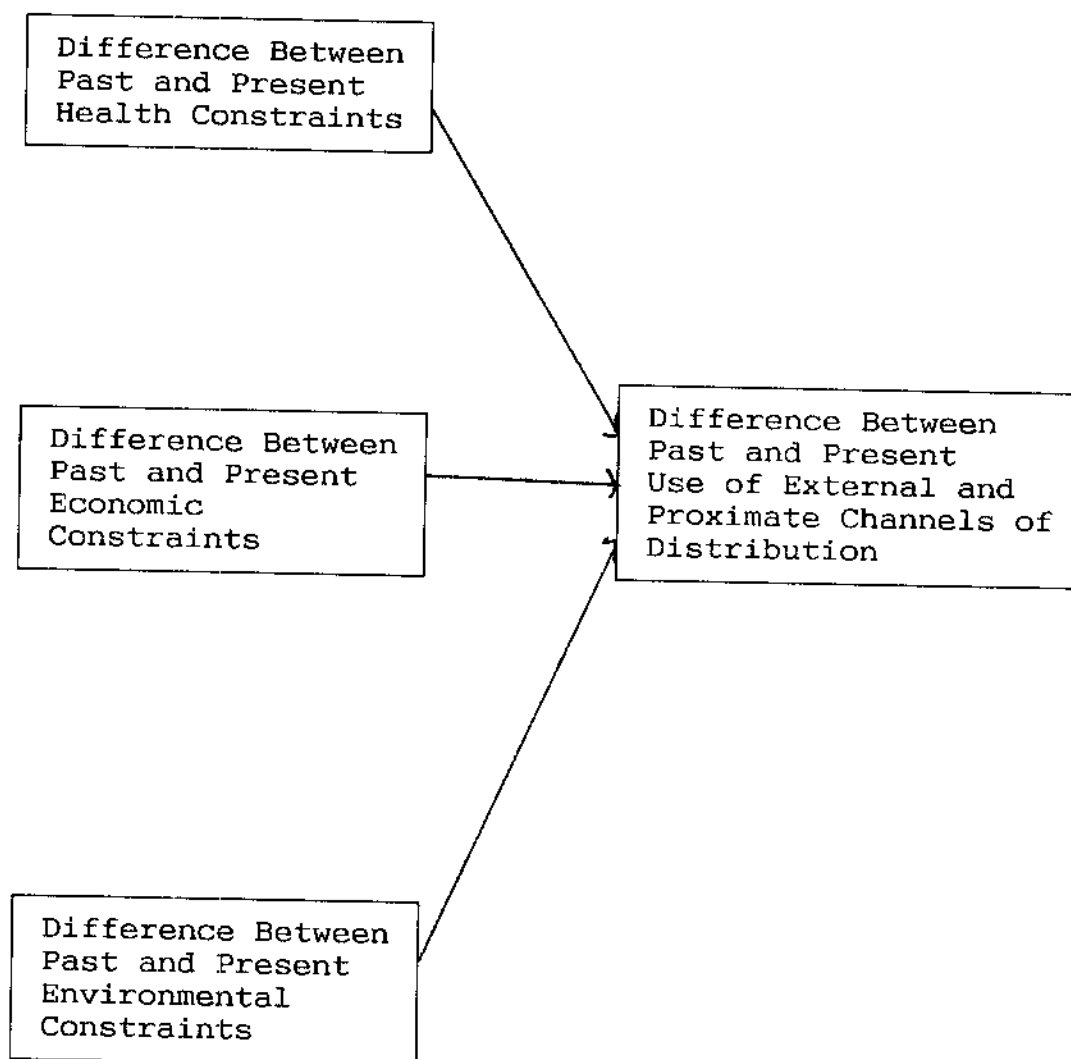


Fig. 3. Model--Hypotheses 1 and 2.

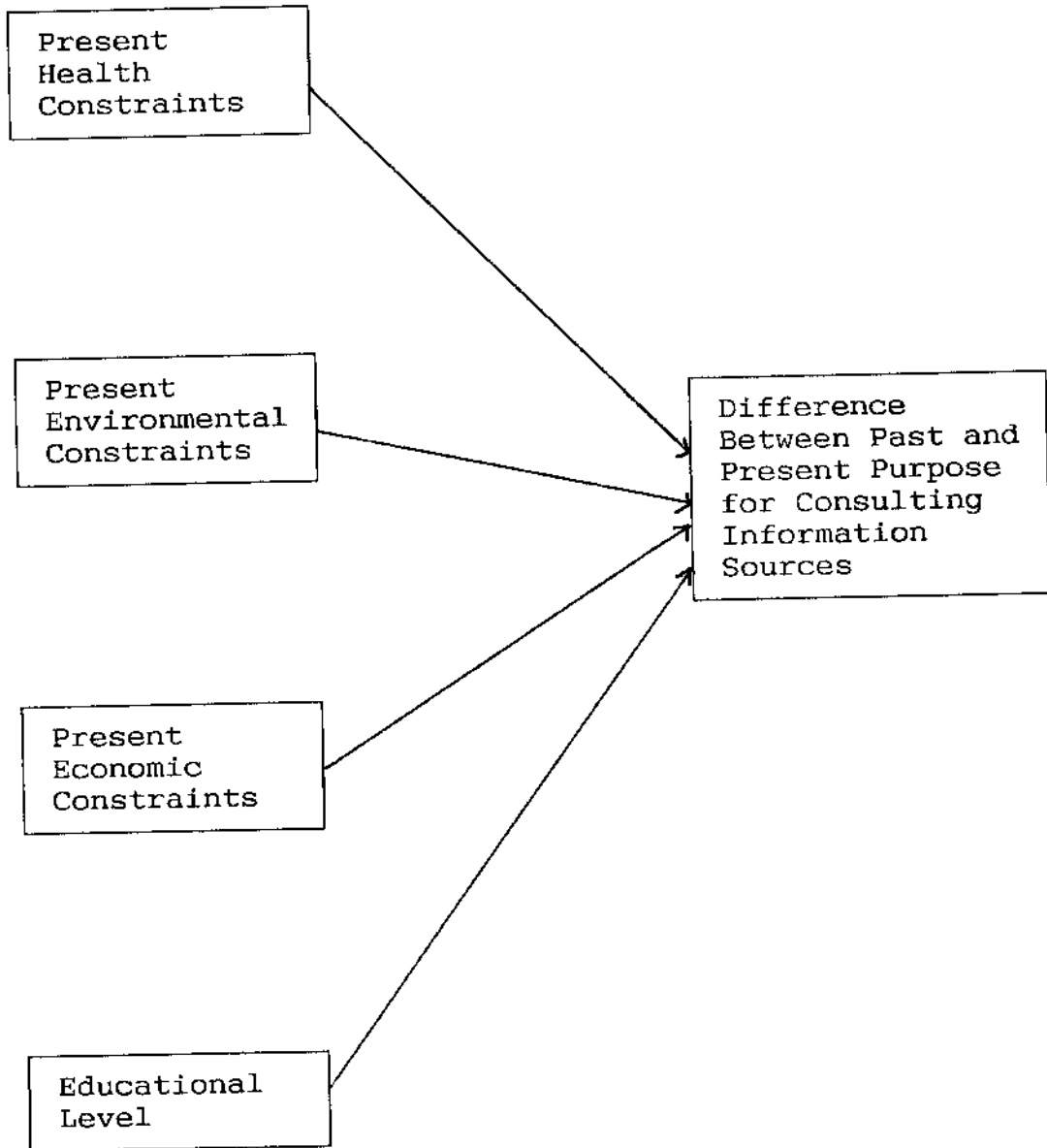


Fig. 4. Model--Hypotheses 3 and 4.

the individual's residence or another location. Such channels assume the use of reliable transportation for regular and continued use.

Information acquisition--The cognitive assimilation of information through the senses from one or more sources-- through vision from print or video sources, through hearing from audio sources (including another person) or the audio portion of video sources, or through the tactile sense from braille (a print alternative) or technologies such as the Optacon--of necessity, to make decisions in daily life, or by choice, for pleasure, entertainment, or education.

Information source--A printed item (newspaper, magazine, or book) or the equivalent in the audio or tactile formats produced by the National Library Service for the Blind and Physically Handicapped, or broadcast programming, such as radio, the Radio Reading Service, or television.

Magazine--A bound, printed periodical, in regular or large print, or the equivalent in the alternative audio or tactile formats produced by the National Library Service for the Blind and Physically Handicapped.

Newspaper--A tabloid journal, in regular or large print, or the equivalent in the alternative audio or tactile formats produced by the National Library Service for the Blind and Physically Handicapped.

Nonreader--In this study, one who had not read (visually or tactilely) or listened to a newspaper, magazine, or

book in an average six-month period between ages 40 and 55, or one who had not read (visually or tactilely) or listened to a newspaper, magazine, or book in the six-month period preceding administration of the interview schedule at age 65 or older.

Proximate channel of distribution--A channel of distribution which uses a decentralized approach to location, allowing an individual to arrange for the delivery of an information source to the residence or another location of the individual's choice. Transportation becomes the responsibility of the distributor or an intermediary, or is not necessary for regular and continued use of the information source, as in the case of broadcast programming.

Reader--In this study, one who had read (visually or tactilely) or listened to a newspaper, magazine, or book in an average six-month period between ages 40 and 55, or one who had read (visually or tactilely) or listened to a newspaper, magazine, or book in the six-month period preceding administration of the interview schedule at age 65 or older.

Summary

This chapter presented an overview of the proposed study. The projected growth in the segment of the population sixty-five years of age and over was noted, along with some of the reasons for that growth and a summary of demographers' estimates of the health and educational char-

acteristics of this population segment. A rationale for provision of information services to older adults was presented. A conceptual framework was presented for the study, indicating how relationships among the variables of interest might be understood. The problem to be studied was been stated, the hypotheses of interest noted, and models were presented as an alternative method of visualizing the hypotheses, followed by definitions used in the study. The next chapter will discuss in detail a broad range of previous research related to this study.

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CHAPTER 2

RELATED RESEARCH

An exploration of the literature reveals nothing which directly addresses the topic of this study. This is in part due to the multi-dimensional nature of the problem and to the recency of efforts to explore research topics related to aging. Gerontological research in a modern sense has been underway for less than fifty years, and most research of consequence in the field has been conducted in the last thirty years. Research efforts in gerontology have first of all focused on the biological, medical, psychological, and social consequences of aging. As results from these efforts have been assimilated by other disciplines, new avenues of research have developed.

A great deal of literature does exist that addresses one or more facets of the problem to be investigated, beginning with documents which recount the growth of interest in various disciplinary areas in topics related to gerontology. Similarly, the efforts of librarians and reading professionals in providing and determining the need for services to older adults are also documented. Another topic reviewed is the concept of chronological age as a determinant for the structure of service delivery in library and

information settings. Professional entities in library and information science which have addressed issues related to chronological age and, more specifically, the needs of older adults, are discussed.

Another facet of the literature analysis surveys research studies in a variety of areas. Studies of library service delivery which have attempted to determine the extent of specialized services to older adults are reviewed. Other studies are reviewed which have focused, at least in part on reading as a discretionary activity of older adults either in the context of life activities, or other leisure activities.

Other studies of adult reading habits discuss adults' participation in reading and book purchasing in general, and of the role which the motivation for reading plays in enhancing or diminishing reading activity. Specific information on the reading habits of older adults provided by the same documents is also mentioned, as is information drawn from a few studies focusing specifically on the information acquisition patterns of older adults. Still another element of the problem is addressed in documents which explore the availability of a variety of channels of distribution for obtaining reading materials and information, the relationship between reading and library use, and the decline in library use with age.

The role of environmental constraints is also reviewed. Since the existence of broadcast channels of distribution with their immediate proximity to the older adult is a matter of interest in this study, literature which bears on the role of television, radio, and the Radio Reading Service in the lives of older adults is examined.

The role of transportation as a factor in the use of external channels of distribution is also documented in the literature. Finally, the role of outreach services, offered by libraries as a method of overcoming barriers to library utilization by older adults and the need for physical accessibility of facilities for older adults, is discussed.

Gerontological literature provides a great deal of information on the personal constraints imposed by the biological aspects of aging. Homeostatic decline, general health status, and the possibility of visual and auditory impairment with age are reviewed. The impact of visual impairments on older adults' interaction with the print environment is discussed, and the role of large print and the National Library Service for the Blind and Physically Handicapped as compensatory strategies for coping with visual impairments are reviewed.

The consequences of auditory impairment on interaction with the larger environment is discussed, as is the impact of declines in mobility. Finally, the possible role of

income as a barrier to the acquisition of information by older adults is also discussed.

The emergence of new information technologies, such as the computer, and the use of such technologies by older adults is reviewed. The role of more established technologies, such as recordings on disc or tape is also discussed in the context of use by older adults.

Finally, the role of location of channels of distribution as a factor in the use of information sources by older adults is reviewed. Gerontological studies, library use studies, and studies of adult reading habits which address this topic are discussed.

The Response of the Professions to Older Adults

From the 1960s to the present, many disciplinary areas have exhibited increased interest in the needs of older adults. Gerontology, in academic and social service settings, emerged as a distinct disciplinary and professional area with a developing literature. Aging and Society, a three volume set published by the Russell Sage Foundation in 1969 under the direction of Matilda White Riley, was particularly influential on the development of gerontological emphases in a number of disciplinary areas because of its multi-disciplinary approach to aging, and its early exploration of the impact of the growth of the older segment of

the population for a variety of professions.²⁰ Wilbur Schramm, writing on "Aging and Mass Communication," discussed in depth the importance of television viewing, reading (of books, magazines, and newspapers), movie attendance, and the influence of educational level in the lives of older adults.²¹

Javelin documents the efforts of librarians in developing services to older adults from 1941 to 1971.²² In her discussion of library outreach services, Weibel noted that the aged began to be targeted as a specific client group in library services during the period from 1969-1974.²³

Nauratil provides a discussion of more recent professional efforts as regards services to older adults.²⁴ Kamin's excellent review provides a valuable reference to much of

²⁰Matilda White Riley, ed., Aging and Society, 3 vols. (New York: Russell Sage Foundation, 1969).

²¹Wilbur Schramm, "Aging and Mass Communications," in Aging and Society, vol. 2, Aging and the Professions, ed. Matilda White Riley, John W. Riley, Jr. and Marilyn E. Johnson, 352-375.

²²Muriel C. Javelin, "How Library Service to the Aging Has Developed," Library Trends 21 (January 1973): 367-389.

²³Kathleen Weibel, The Evolution of Library Outreach 1960-75 and Its Effect on Reader Services: Some Considerations, University of Illinois Graduate School of Library and Information Science Occasional Papers, no. 156 ([Champaign]: University of Illinois at Urbana-Champaign, 1982), 20.

²⁴Marcia J. Nauratil, "Older Adults," chap. in Public Libraries and Nontraditional Clienteles: The Politics of Special Services (Westport, Ct.: Greenwood Press, 1985), 51-75.

the literature relevant to book reading and public library use by older adults.²⁵ Robinson and Maring summarized reading research with older adults and concluded that as of 1976, "research concerning reading in the aging [was] uncharted territory," and suggested twelve areas with potential for research.²⁶

The Response of Information Professionals to Older Adults

Chronological age is a concept that, as a result of tradition or design, is used for the description of categories of information service provision, and is also a popular method used to structure information service delivery for administrative purposes. Even the most casual acquaintance with the literature of librarianship and information science reveals the terms "children's," "young adult," and "adult" as descriptive terms for differing patterns of service to different age groups in public libraries. Noting that the development of services based on chronological age has been evolutionary, Heim writes,

²⁵Judith Kamin, How Older Adults Use Books and the Public Library: A Review of the Literature, University of Illinois Graduate School of Library and Information Science Occasional Papers, no. 165. [Champaign], Ill.: University of Illinois at Urbana-Champaign, 1984.

²⁶Richard D. Robinson and Gerald Maring, "The Aging Process and its Relationship to Reading: A Review of Literature from Gerontology with Implications for Future Research," in Reflections and Investigations on Reading: Twenty-Fifth Yearbook of the National Reading Conference, ed. Wallace D. Miller and George H. McNinch (Clemson, S.C.: The National Reading Conference, 1976), 75.

The term adult services, as a special designation for public library activities on behalf of adults, did not emerge until libraries had broadened their scope to include services to children and young adults. As libraries expanded toward offering full service for all, the needs of different age groups required definition and refinement. Over time, specializations emerged within the somewhat arbitrary categorization by age.²⁷

Descriptive terms revelatory of a focus on a particular age group as recipients of service also appear in other areas of librarianship. Discussions of school librarianship may contain references to "pre-school" or "teen-ager," while terms such as "undergraduate," "graduate," or "returning student" once referred to specific age categories in academia, and thus, in academic libraries, implied service to a particular age group.

Special librarianship and information science often, by association, address the information needs of adults within a vocational or professional context and so, by implication, are concerned with adults under age 65. Societal changes may have blurred such distinctions, but the terms, with their underlying age connotations, remain.

Nevertheless, age through the lifespan (including old age) as a basis for the underlying contextual structure for service provision is seldom addressed in the literature of librarianship and information science. Exceptions to this

²⁷Kathleen M. Heim, "Adult Services as Reflective of the Changing Role of the Public Library," RQ 26 (Winter 1986): 180.

pattern can be found in two somewhat different areas in the literature. The first is found in documents discussing intellectual freedom and the concerns of librarianship.

The Intellectual Freedom Manual, second edition, functions as a ". . . unified general guide to application of The Library Bill of Rights."²⁸ The Library Bill of Rights, Article 5 states that "a person's right to use a library should not be denied or abridged because of origin, *age*, background or views"(italics mine).²⁹ At first reading, "age" might initially be understood to have an intergenerational connotation. A closer reading of the documents reveals a different context for the inclusion of the word. "The word 'age' was incorporated into article 5 of the Library Bill of Rights because young people are entitled to the same access to libraries and to the materials in libraries as are adults."³⁰

The background statement "Free Access to Libraries for Minors," gives the historical background for the succeeding interpretations, titled "Free Access to Libraries for Minors: An Interpretation of the Library Bill of Rights," "Administrative Policies and Procedures Affecting Access to

²⁸American Library Association, Intellectual Freedom Manual, 2d ed., (Chicago: American Library Association, 1983), 15.

²⁹Ibid., 14.

³⁰Ibid., 23.

Library Resources and Services: An Interpretation of the Library Bill of Rights," and "Restricted Access to Library Materials: An Interpretation of the Library Bill of Rights." All oppose material selection decisions and other administrative policies which result in limiting access to adult materials for young adults.³¹

The provision of service in librarianship and information science to a variety of age groups is addressed within the framework of professional associations. Concerns relating to service delivery to older adults have been addressed by two groups within the American Library Association.

Not surprisingly, librarians in public libraries have often been leaders in services to older adults. The Library Service to an Aging Population Committee in the Reference and Adult Services Division (RASD) has provided leadership in this area. The statement "The Library's Responsibility to the Aging" was originally adopted in 1964, and its latest revision was published in 1981.³² It identifies ten areas of responsibility which public libraries in particular may address. "Guidelines for Library Service to Older Adults," uses the areas of responsibility as a point of departure and

³¹Ibid., 17-21, 22-23, 25-26, 55-57.

³²American Library Association, Reference and Adult Services Division, Library Service to An Aging Population Committee, "The Library's Responsibility to the Aging," RQ 21 (Fall 1981): 27.

presents a detailed statement of activities which may be undertaken to fulfill each area of responsibility, while adding two new areas.³³

The Association of Specialized and Cooperative Library Agencies (ASCLA) has also served to focus interest on older adult services through its Libraries Serving Special Populations Section and the Library Service to the Impaired Elderly Forum (LSIEF), formerly known as the Library Services to the Impaired Elderly subsection (LSIES). One method utilized has been the devotion of an entire issue of the division newsletter, Interface, to the topic of services to the impaired elderly.³⁴

In addition to the American Library Association, another organization of a quasi-governmental nature, the National Commission on Library and Information Science (NCLIS), has engaged in a number of activities designed to improve library services to older adults.³⁵ Recently, Bessie Boehm Moore, Vice Chairman of NCLIS with the

³³American Library Association, Reference and Adult Services Division, Library Services to an Aging Population Committee, "Guidelines for Library Service to Older Adults," RQ 26 (Summer 1987): 444-447.

³⁴Allan Kleiman, ed., "Feature Issue: Libraries Serving the Impaired Elderly," Interface 7 (Summer 1985): 1.

³⁵Bessie Boehm Moore and Christina Carr Young, "Library/Information Services and the Nation's Elderly," Journal of the American Society for Information Science 36 (November 1985): 365-366.

responsibility for services to the aging, testified before the Senate in reauthorization hearings for the Older Americans Act.³⁶

Despite the activities of these groups, Turock, based on her research, finds that ". . . public libraries are reaching about 7 percent of the potential elder audience," a small portion of those that could benefit from services.³⁷ She ascribes this to the prevailing concept of service delivery in public libraries known as "service to all."

The service-to-all philosophy of the public library is its greatest strength--and its greatest weakness when it comes to serving older adults. It leads to the inclusion of elders as users without discrimination, but it also keeps public libraries from defining the older adults as one of their major markets and targeting specific programs to them. The developmental tasks of aging have been well documented by gerontologists and leaders in library service alike, but librarians who perceive the importance of services based upon developmental needs for children, young adults and adults fail to apply that perspective to older adult services as well.³⁸

³⁶Congress, Senate, Committee on Labor and Human Resources, Subcommittee on Aging, Older Americans Act of 1987: Hearings before the Subcommittee on Aging, 100th Cong., 1st Sess., 31 March, 23 and 30 April 1987, 167-177.

³⁷Betty J. Turock, ed. "Public Library Services for Older Adults: Update," chap. in Information and Aging (Jefferson, N.C.: McFarland, 1988), 9.

³⁸Ibid., 13.

Research Studies

Library Service Delivery

Spurred by the growth in interest in older adults and the development of gerontology as a disciplinary area, research studies in librarianship and information science--often dissertations--have appeared with increasing frequency on topics related to aging, with the trend continuing to the present. Kanner's dissertation devotes two chapters to discussion of the emergence of gerontology as a profession and to the absorption of gerontological issues into the professional concerns of librarianship.³⁹ Research results found a "median period of 5.5 years for transfer of ideas from gerontology to librarianship," with time gaps of six to eleven years for ideas couched in the technical language of gerontology.⁴⁰ Kanner also found that "the key feature in the adoption of gerontological concepts by librarians is their apparent applicability to current issues in library planning and their presentation in popularly written gerontological works."⁴¹

Ferstl investigated the attitudes of public librarians toward the aging and services for the aging, and found that

³⁹Elliot E. Kanner, "The Impact of Gerontological Concepts on Principles of Librarianship" (Ph.D. diss., University of Wisconsin, 1972), 13-41.

⁴⁰Ibid., 93-94.

⁴¹Ibid., 92.

librarians often professed positive attitudes toward the aging as a population group, but that their attitudes toward service delivery were not as favorable.⁴² Kennedy surveyed interest in services to the aging by academic librarians and noted that the minority of academic librarians who had planned library services for older adults or who had worked with older adults in the context of an academic Elderhostel program had more positive attitudes toward service delivery than those who had not. Further, she found that academic librarians disagreed "with stereotypic views of older adults, and in some cases, disagreed quite strongly."⁴³

Still other research studies have focused on the availability of library services to older adults. The landmark National Survey of Library Services to the Aging was conducted in two phases from 1971 through 1972.⁴⁴ Phase I identified libraries providing exemplary services to older adults, as identified by leaders in the profession.

The purpose of the first phase of the survey was to examine specific library services rendered to persons over 65 by certain identified public libraries and

⁴²Kenneth Leon Ferstl, "Public Librarians and Service to the Aging: A Study of Attitudes," (Ph.D. diss., Indiana University, 1977), 227-234.

⁴³Mary Ellen Kennedy, "Service to Older Adult Users of Academic Libraries: A Study of Librarian Attitudes," (Ph.D. diss., University of Pittsburgh, 1982), 165-168.

⁴⁴Cleveland Public Library, National Survey of Library Services to the Aging: Final Report, Phase Two ([Washington, D.C.]: U.S. Department of Health, Education, and Welfare, Office of Education, Bureau of Libraries and Educational Technology, 1972), 1, ERIC, ED 072 835.

libraries at state and federal institutions . . . State library agencies, state administrations on aging, U.S. Department of Health, Education, and Welfare . . . regional program officers, and other selected individuals and agencies were contacted to identify libraries that were believed to provide specific library programs or services for the 65 and over population.⁴⁵

For the second phase "libraries surveyed were designated by USDHEW listings of public library systems with service area populations exceeding 25,000 according to the 1970 Census." Library systems were not designed to be evaluated "as a system," but rather as individual public libraries.⁴⁶ Services and programs were defined as follows:

A program or service for the aging was defined as any library program or service (1) which is offered specifically for the aging or (2) in which 50% of the participants are 65 years of age or older (65+). This definition eliminated regular services offered routinely to clientele of the library without special regard to the age, location or physical characteristics of the user.

Under the study definition, the services surveyed, therefore, could be a part of what is commonly known as the special or outreach services of the library or specific programs designed exclusively for older persons.⁴⁷

For the second phase, 1,330 questionnaires were mailed, with a response rate of 65 percent (858 respondents).⁴⁸

Conclusions stated that "less than two percent of the aging

⁴⁵Ibid.

⁴⁶Ibid., 6.

⁴⁷Ibid., 5.

⁴⁸Ibid., 4-7.

in the United States are estimated to receive specific library service from public libraries," and that "less than 20% of public libraries are estimated to provide specific programs or services for the aging."⁴⁹

An update produced in 1984 by Betty J. Turock, provided a follow-up study based on data on the 390 libraries identified in Phase I and added an additional 128, for a total of 518. Replies with usable data were received from 61 percent, or 318.⁵⁰ She found that

A decade after the national survey's findings, there is still no evidence of major improvement in organization for services for the elderly. They remain understaffed, uncoordinated, and scattered among many locations and task groups.⁵¹

Reporting additional findings based on the same data, Turock also notes that when librarians were asked to rank their priorities for program development,

. . . first place went to services for adults, second to children ages 5 to 14, third place to preschoolers up to age 5, fourth place went to services for older adults--those 65 and older, and fifth place went to services for young adults. . . . But in spite of the shifting age of the population, 70 percent of the public librarians who responded to our survey gave a low priority to the development of library and information services for older adults when compared to other age groups.⁵²

⁴⁹Ibid., 26.

⁵⁰Betty J. Turock, "Public Library Service for Older Adults: Update 1984," The Library Quarterly 57 (April 1987): 139-141.

⁵¹Ibid., 166.

⁵²Turock, Information and Aging, 9.

She also reports on findings that support Ferstl's research on the negative attitudes held by public librarians toward services for older adults.

Finally, the finding . . . that was most unexpected pointed out that one of the biggest constraints to libraries' initiating educational and informational programs for older adults was that public librarians persist in the view that the intellectual abilities of elders decline with aging, and, therefore, informational and educational services are not the most appropriate to offer to an aging audience.⁵³

In the interim between the publication of the National Survey of Library Services to the Aging and the update, a survey was conducted of library services to the aging in Illinois.⁵⁴ All of the 579 public libraries in Illinois received the questionnaire, and 70 percent, or 403, responded. Only 38 percent, or 219 reported offering services or activities for persons 60 years of age or over.⁵⁵ The conclusion of the survey was that ". . . Illinois libraries are not generally responsive to the needs, interests, and informational and environmental barriers facing older persons."⁵⁶ All three studies differentiate between services offered to all adults and

⁵³Ibid., 10.

⁵⁴Illinois State Library Task Force for Library Services to the Aging, Services for the Elderly in Illinois Public Libraries: A Survey, Illinois State Library Report no. 6, (Springfield: Illinois State Library, 1981), 2.

⁵⁵Ibid., 11, 32.

⁵⁶Ibid., 25.

services provided specifically for older adults, with the purpose aimed at identifying libraries which provide specialized services.

Still another survey in process, the Adult Services in the Eighties Project, ". . . is intended to provide a state-of-the-art description of the extent to which adult services are provided in U.S. public libraries serving populations of 25,000 or more."⁵⁷ The survey includes questions on programming for the aging as a special group; outreach services to retirement/nursing homes, including materials on demand, deposit collections, and programming; the provision of materials to the homebound; books by mail; and book- mobile services.⁵⁸

Reading as a Discretionary Activity

As previously discussed, reading can be either an obligatory or a discretionary activity. Obligatory activities are those defined as "self-maintaining and instrumental behaviors that are relatively highly programmed and whose time demands are, for the adult population, considered relatively invariant," while discretionary activities are "social and personal leisure time activities."⁵⁹ Thus, reading one's mail for news related to personal business

⁵⁷Heim, "Adult Services," 184.

⁵⁸Ibid., 186-187.

⁵⁹Lawton, "The Impact of the Environment," 281.

matters may be obligatory, whereas reading the latest best-seller may be discretionary.

Reading may be considered a discretionary activity in two respects. First, reading is one of a number of activities of daily life and, more specifically, leisure activities that may be engaged in by older adults. Second, reading is one method among several (other competitors being television and radio) that can meet needs for information acquisition.

Life Activities

Pfeiffer and Davis investigated the use of leisure time by 502 persons aged 46-71, within the context of other life activities. Study participants were asked about time spent in eating, personal care, working, watching television and listening to the radio, reading, participating in sports or hobbies, church attendance and other meetings, volunteer work, socializing, activities around the house, just sitting around, and other activities. The amount of time spent reading ranked third after work activities and watching television and listening to the radio. Reading was found to occupy a considerable amount of time: 8.3 hours per week for men and 9.0 hours per week for women. Individuals in the older age groups spent significantly more time reading.⁶⁰

⁶⁰Eric Pfeiffer and Glenn C. Davis, "The Use of Leisure Time in Middle Life," The Gerontologist 11 (Autumn

Lawton, summarizing the research of Beyer and Woods, reported that 61 percent of their elderly subjects engaged in reading for a median of one hour per day, placing reading (in terms of the percentage of respondents noting the activity) fifth, after eating/cooking, personal care, television, and housework.⁶¹

Leisure Activities

Some studies have compared the amount of time spent reading to the amount of time spent in other leisure activities. Rebottini found that, of 50 respondents, 78 percent rated several outside leisure activities more highly than reading. They preferred going to the shopping mall, visiting friends, going to the Senior Center, attending church functions, working on hobbies/crafts, and walking.⁶²

The National Council on the Aging had Louis Harris and Associates conduct two studies to assess older adults' attitudes towards a number of activities. The first, The Myth and Reality of Aging in America, was published in

1971, part 1): 189-190.

⁶¹G. Beyer and M. E. Woods, Living and Activity Patterns of the Aged, (Ithaca, N.Y.: Cornell University Center for Housing and Environmental Studies, 1963), quoted in Lawton, "The Impact of the Environment," 282.

⁶²Sondra Lee Rebottini, "Reading Interests and Habits of Older Adults," (Ed. D. diss., West Virginia University, 1979), 94.

1975.⁶³ The second, Aging in the Eighties: America in Transition, was published in 1981.⁶⁴

Both asked adults to indicate "activities at which a lot of time is spent."⁶⁵ Activities listed were participating in recreational activities and hobbies; socializing with friends; sitting and thinking; caring for younger or older members of the family; watching television; just doing nothing; reading; taking walks, jogging, or other exercise; and listening to the radio.⁶⁶ The results of the 1981 study when compared to the results of the 1975 study, reported that "among the elderly, the percentage spending a lot of time reading has risen slightly from 36% to 39% since 1974, and has declined from 38% to 33% among those under the age of 65."⁶⁷

Gordon and Gaitz, in their report on the Houston Study of Leisure Across the Lifespan, studied the leisure activities of 1,441 persons aged 20-94 in Houston, Texas, stratified according to sex and ethnicity (anglo, black, and

⁶³National Council on the Aging, The Myth and Reality of Aging in America (Washington, D.C.: National Council on the Aging, 1975).

⁶⁴National Council on the Aging, Aging in the Eighties: America in Transition (Washington, D.C.: National Council on the Aging, 1981).

⁶⁵Ibid., 22.

⁶⁶Ibid.

⁶⁷Ibid., 21.

Mexican American). Results indicated that "the older the respondent, the lower the level of general leisure activity."⁶⁸ This general pattern held true for reading.⁶⁹

Adult Reading Habits

Studies of adult reading habits provide a great deal of information relevant to the present study. One major study, the Consumer Research Study on Reading and Book Purchasing, consists of the analysis of 1,450 interviews conducted among a representative sample of the general United States public age 16 and over.⁷⁰ While characterizing the United States as a "nation of readers," the study also noted the loss of the older person as a book reader.⁷¹

Individuals were categorized as book readers, nonbook readers, or nonreaders. Book reading activity was categorized according to book reading volume, and volume was measured in terms of the number of books read in the past six months.⁷²

⁶⁸Chad Gordon and Charles M. Gaitz, "Leisure and Lives: Personal Expressivity Across the Life-Span," in Handbook of Aging and the Social Sciences, ed. Robert H. Binstock and Ethel Shanas (New York: Van Nostrand Reinhold, 1977), 326.

⁶⁹Ibid., 327.

⁷⁰Yankelovich, Skelly, and White, Consumer Research Study, 5.

⁷¹Ibid., 20, 45.

⁷²Ibid., 12, 107.

Each of these major groups have [sic] distinct demographic and lifestyle characteristics. For example, the book reader group is composed of a disproportionately large number of women, and also disproportionately represents those at the traditionally higher end of the socioeconomic spectrum in terms of education, race and income. In addition to reading, book readers are engaged heavily in a wide range of leisure time activities.

The nonbook reader is, in many respects, the typical American in terms of his or her demographic characteristics. Nonbook readers are also active (but not as active as book readers) in other leisure activities. However, among the small nonreader group, several groups are represented in greater numbers than in the population as a whole: older people, blacks, and those at lower educational and income levels. The nonreaders are less involved than others in both the leisure time and employment spheres.⁷³

The study provides information on the purposes for reading and on the extent to which adults view reading as an obligatory activity, pursued for information, or a discretionary activity, pursued for pleasure. Interesting findings with respect to sex, age, and the main reason for reading were noted with respect to book readers and book reading volume:

Sex

The book reader group, on the whole, has a slight majority of women. Women are concentrated in the heavier volume groups and in particular, nearly 70% of the heaviest volume group are women, as compared with only slightly more than half women in the lighter volume groups.

Age

The majority of book readers as a group are between the ages of 21-49. While age differences are minimal, it

⁷³Ibid., 26.

can be noted that the heaviest book readers are more likely than others to be in the 30-39 age group. The moderately heavy volume group (10-25 books read) consists of the greatest number of those (48%) under the age of 30. Lighter volume book readers tend to be older than others. One-fifth of the lightest readers (1-3 books) are age 60 or over. . . .

Main Reason for Reading

The pleasure orientation to reading also increases with book reading volume. Nearly half of the heaviest book readers read primarily for pleasure. The general knowledge orientation is relatively heavier (though not quite on a par with pleasure) among the lighter volume readers.⁷⁴

The finding that the purpose for reading was highly correlated with the volume of book reading was further emphasized.

For example, book readers are favorably inclined toward all types of reading and, most importantly, position reading as a pleasurable, satisfying recreational activity. These book readers often maintain a stable level of reading over the years; to the extent that change occurs, it is in the direction of more reading. Reading of books among this group is viewed as an easy to accomplish activity.

Nonbook readers are less active and involved in nearly all areas of reading than the book reader; they are also less likely to increase or maintain a high level of reading over the years. More importantly, this group tends to position reading as an activity done to gain information, and does not associate books with pleasurable benefits. And, the failure to view book reading as an easy to accomplish activity is, perhaps, linked to a lack of recent experience with this activity.

The nonreader has a set of attitudes and experiences that apply to reading in general as well as book reading in particular. While a few nonreaders have discontinued reading due to visual impairments, most have never gained the voluntary reading experience

⁷⁴Ibid., 108-109.

necessary for developing the interest in, or ability to enjoy, reading books or other materials.⁷⁵

The study also included findings on the educational and income characteristics of book readers, nonbook readers, and nonreaders.

Education

Education is another important factor in distinguishing these groups. Book readers are the best educated relative to others and are particularly more likely than nonbook readers and nonreaders to have had some college or more. But, the book reader market should, by no means, be confused with a "college educated market." While some college education appears to contribute to the likelihood of an individual being a book reader, the book reader market actually consists of a majority (57%) of those who are high school graduates or less. Nonbook readers are only slightly less well educated than the population as a whole. However, the small population group (6%) of nonreaders are clearly less well educated than readers. Over 60% are less than high school graduates; one-third have completed less than 9th grade.

Income

Income differences between book readers, nonbook readers, and nonreaders are, as might be expected, on a par with educational differences. Book readers are more affluent than others (either nonreaders or nonbook readers). But neither book reading nor book purchasing is confined to the wealthy. Only about 10% of the book readers and purchasers have incomes above \$30,000. The substantially lower incomes of the nonreaders (relative to others) are consistent with the relatively low educational attainment of this group; 2 out of 5 nonreaders have family incomes below \$10,000.⁷⁶

⁷⁵Ibid., 27.

⁷⁶Ibid., 49.

Issues related to the age and employment of book readers, nonbook readers, and nonreaders, were also revealed by the study.

Age

Age differences between book readers, nonbook readers, and nonreaders are somewhat less striking than those based on certain other factors such as education. But, certain issues relating to age and reading are worthy of mention. Book readers, by and large, are young--60% under the age of 40, and three-fourths under the age of 50. While those under 21 are more likely than others to be book readers (as would be expected due to the student status of many), there are only small differences in the incidence of book reading and purchasing among those in their 20's, 30's, and 40's, aside from a slight "peak" in book reading among the 30-39 year olds. More important, however, is a drop-off in the incidence of book reading after the age of 50, and a (more substantial) drop-off in all types of reading after the age of 65. While there remains an important need to understand the underlying reason for this lower level in reading among older individuals, it appears that it is not due solely to attrition from the reading (and more specifically, book reading) markets. Rather, the educational attainment of those over 50, and, to an even greater extent, those over 65, is substantially below that of younger adults in the population. . . .

Employment

The number of book readers who are employed either full or part time (56%) is about on a par with the total population. However, it also can be noted that both students and housewives are more heavily represented in the book reader and purchaser groups than among nonbook readers or nonreader groups. In contrast, retired and unemployed adults are represented very heavily in the nonreader group (35%) and the nonbook reader group (27%).⁷⁷

The proportion of book readers also included a considerable number of book purchasers, and differences were noted

⁷⁷Ibid., 50-51.

among those spending greater and lesser amounts of money for book purchases.

Sex

Book reader/purchasers (to an even greater extent than book readers) are primarily women. The heaviest concentration of women are in the moderately heavy and moderately light expenditure groups. The lightest spenders are relatively more likely to be men as compared with heavier spenders.

Age

Three-fourths of the heaviest spenders are between the ages of 21-49. Those in the moderate expenditure groups are slightly more likely to be ages 16-20. But moderately light spenders (\$10-25) are most likely of all groups to be 50 or over. The lightest spender group is very young. More than half of those spending less than \$10 are under the age of 30.⁷⁸

Some findings related to those who purchase hardcover books.

Hardcover books are most often nonfiction and are likely to be saved in a reader's collection. Hardcover books continue to be perceived (and purchased) as gift items. . . . The nonreaders and lighter readers who give hardcover gift books may well be those who have more traditional views of books and who perceive books as physical entities over and above "vehicles of experience. . . ." Exclusive hardcover purchasers represent a small (and older) market segment which engages in a relatively lower volume of book reading and purchasing.⁷⁹

Watson used data collected from 16,704 Canadian adults for his study of adult reading habits.⁸⁰ Categories similar

⁷⁸Ibid., 116.

⁷⁹Ibid., 41-42, 44.

⁸⁰Kenneth F. Watson, Leisure Reading Habits: A Survey of the Leisure Reading Habits of Canadian Adults with Some International Comparisons, (Ottawa, Ont.: Infoscan, 1980), 126.

to those in the Consumer Research Study on Reading and Book Purchasing were developed to define book readers (63%), nonbook readers (28%), and nonreaders (8.5%).⁸¹ His findings, although not directly comparable with the American study, contain some similarities. With respect to book readers, defined as "anybody who read at least one book in the last 12 months," Watson's findings relating education, sex, and age follow:

Education is . . . the most important influence. Within groups with the same sex, age, and region, there is often a 50 percentage point difference in book reading on the basis of education alone. In fact, education is a greater influence on book reading than it is on reading in general. While the average difference between the extreme educational groups with respect to reading was 24%, the average difference with respect to book reading is 50%. . . .

A second clear influence is sex. Within each of the age, region, and educational groups, more women than men read books. . . . Moreover, this clear pattern is present despite the fact that there were no significant differences between men and women in terms of overall reading participation and the amount of leisure time spent on reading.

With only two exceptions, book reading declines with age among females. Among males, however, the pattern is mixed, with six of the possible combinations showing decline, and five showing increase of book reading with age. Changes in book reading with age follow an interesting pattern with respect to education. Six out of the seven cases in which book reading increases with age occur among the university educated.⁸²

Reading activity was also measured by the number of hours spent reading newspapers, magazines, and books

⁸¹Ibid., 10.

⁸²Ibid., 23-24.

(reported in table 2-2) during the previous week, and was examined for different age groups.

The fact that older people who read spend a lot of time doing so is made very clear. In the youngest group [ages 15-19], those who read spend an average of 7.9 hours per week doing so; among the oldest group [ages 70+], readers spend an average of 12.8 hours. In the case of newspapers, the average number of reading hours rises steadily with age. But in the case of both magazines and books, it is the working age population (ages 25 to 54) which spends the smallest number of hours reading, with both younger and older readers spending about equally more.⁸³

Watson presents further analysis on the interaction of age, education, and reading behavior.

The "illiterate group" with less than nine years of schooling has approximately 70% of its members older than 45 years of age. On the other hand, 70% of Canadians who have a degree are younger than 45. This is important because, . . . as we have seen, . . . less educated people read less, and . . . older people read more. So, in the "illiterate" group which we are examining, there are two countervailing influences. It is a group that is expected to read less because of its low education, and at the same time it is a group that is likely to read more because of its relatively advanced age.⁸⁴

Watson found that the median number of hours spent each week in leisure reading rose consistently as age increases.

In fact, the median number of hours doubles from the youngest age group to the oldest . . . This steady rise seems to accelerate sharply between the age groups 45-54 and 55-64. That is, the level rises slowly in the first five age groups, then rises suddenly between two groups, and then rises slowly again. The difference in level between 45-54 and 55-64 is as great as

⁸³Ibid., 13-14.

⁸⁴Ibid., 91-92.

all of the accumulated differences between the lower age groups.⁸⁵

Further, Watson found more evidence of educational disparity as age increased. This lead to the following suppositions.

Firstly, the older age groups had less educational opportunity and therefore a greater range of educational disparities than the younger age groups. Secondly, it may be that there is a "life cycle" effect here--the older age groups have more time to read. And, thirdly, it may be that older age groups choose to spend relatively more of their leisure time reading.⁸⁶

Watson used a different approach to identify reasons for reading. Some interesting differences were noted with respect to young and old, and men and women.

For example, young people are twice as likely to cite personal development (a future-oriented response) as do old people, while old people are twice as likely to cite habit (a past-oriented response) as do young people. The young are also much more likely than older people to cite interest in a subject (perhaps related to personal development) while the old are more inclined to list general information. The differences between men and women suggest an interesting generalization. Women are more likely than men to cite unfocused nongoal-oriented reasons such as relaxation and recreation and the fact that they have always read. Men, on the other hand, are more likely than women to cite goal oriented reasons such as gaining information and interest in a specific subject.⁸⁷

Grubb's study addressed the problem of "reading among older adults and the relationship of such reading to their

⁸⁵Ibid., 92-93.

⁸⁶Ibid., 94.

⁸⁷Ibid., 27.

sense of life satisfaction."⁸⁸ Data were collected in two surveys in three central counties of the Dallas-Fort Worth Standard Metropolitan Statistical Area (Dallas County, Denton County, and Tarrant County). The first survey was conducted by telephone interviews with a sample of 304 non-institutionalized adults sixty-five years of age and older, and another sample, for comparison, of 200 noninstitutionalized adults twenty-five to sixty-four years of age. The second survey collected data on library materials and services available to older adults from a mailed questionnaire sent to all public libraries in the same three counties.⁸⁹

Grubb measured reading time in hours per week: less than one hour per week, 1 to 3 hours per week, 4 to 7 hours per week, 8 to 14 hours per week, or 15 or more hours per week. Generally, older adults read less than the younger adults; however, some older adults read 15 or hours per week.⁹⁰

Although 9 per cent more older adults than younger adults reported spending less than one hour per week in reading, 6 per cent more older adults spent 15 or more hours per week in reading. . . . the 6 per cent difference is not significant; however, the 9 per cent difference between older adults and younger adults as readers is significant at the .05 level, and if categories are combined, . . . a significant difference

⁸⁸Elizabeth Ann Grubb, "Reading Interests and Activity of Older Adults and Their Sense of Life Satisfaction, (abstract)," North Texas State University, Ph.D. diss., May 1982.

⁸⁹Ibid.

⁹⁰Ibid., 52.

between older adults may be noted also between older adults and younger adults who read one hour per week or more.⁹¹

Age and sex were found to influence the time spent in reading. Of all the subgroups, older women tended to spend more time in reading; "in comparison with younger women, 12 per cent more older women read 15 or more hours per week."⁹² However, age was not as influential as sex.

With regard to the relative importance of age and sex as influences on reading time, it may be noted that age appears to have a somewhat stronger effect, but the difference is slight. Women appear to spend more time in reading than men regardless of age, but younger adults appear to spend more time in reading than older adults regardless of sex.⁹³

As in other studies, education was a notable influence between readers and non-readers, especially among older adults.

Among older adults, however, education was a significant factor between readers and non-readers; 22 per cent more older adults with a college or higher educational level spent time in reading each week. The relationship between education and reading time was most evident among adults (in both age groups) who spent fifteen or more hours per week in reading. Twenty-seven per cent more younger adults with a college or higher educational level than younger adults with a secondary or lower educational level spent fifteen or more hours per week in reading, and among older adults, 30 per cent more of those with a college or higher educational level than those with a secondary

⁹¹Ibid., 53.

⁹²Ibid., 58.

⁹³Ibid.

or lower educational level spent fifteen or more hours in reading.⁹⁴

Ethnicity was also an influential factor. The respondents in Grubb's study included 433 whites, 61 blacks, 9 Hispanics, and 1 Asian.⁹⁵

There were 10 per cent more white adults than black who spent fifteen or more hours per week in reading, and there were 20 per cent more black adults than white who spent less than one hour per week in reading. There were also 22 per cent more Hispanic adults than white who spent less than one hour per week in reading, but the Hispanic and Asian sub-groups were too small numerically for further comparison.⁹⁶

In order to focus on differences between readers and non-readers among whites and blacks only two levels of reading time [1 or more hours per week and less than one hour per week] were considered. Age was also considered as a factor influencing reading time in these subgroups.

These data identify 20 per cent more readers among white adults than among black adults. This difference is significant at the .05 confidence level.

The relationship between the ethnicity of white and black adults and amount of time spent in reading were next examined with age introduced as a third variable. The differences in reading time between white adults and black adults were found . . . to be higher between the two older subgroups (26 per cent difference) than between the two younger adult subgroups (17 per cent difference). Differences between the white and black subgroups of both older and younger adults were noted as significant at the .05 confidence level. . . .

Among white adults, there were little differences noted . . . between reading time and age (7 per cent

⁹⁴Ibid., 62.

⁹⁵Ibid., 70.

⁹⁶Ibid., 70-71.

more younger white adults were readers); but among black adults, a higher percentage of younger adults were readers. These data suggest that age may interact with ethnicity to effect the reading time of adults. The data also suggest that as younger black adults reach age sixty-five, more of them will be readers.⁹⁷

Grubb also investigated changes in reading time by asking the subjects who reported reading for one or more hours per week if they read more, less, or about the same as they did 10 years ago, and age was investigated as a significant factor.

When the two subgroups were compared by age . . . , change in reading time does not appear to be significantly affected by age. Forty-one per cent of the older adults (versus 45 per cent of the younger adults) reported that they read more than they did ten years ago. A slight tendency to read less with age could possibly be noted in the 30 per cent of the older adults who reported that they read less than they did ten years ago whereas only 24 per cent of the younger adults reported that they read less than they did 10 years ago. The 6 per cent difference between younger and older adults who read less than they did ten years ago [was] not significant, however, at the .05 confidence level.⁹⁸

Reasons for reading were also explored in Grubb's study. Four choices were listed: 1) enjoyment and relaxation; 2) news and information; 3) business and professional; and 4) religious or spiritual.

While a majority of both older and younger adults . . . reported that they read for news and information and for enjoyment, a somewhat larger percentage of younger adults read for enjoyment and for business and professional reasons. A larger percentage of older

⁹⁷Ibid., 71-73.

⁹⁸Ibid., 80-81.

adults than younger adults, however, read for spiritual reasons.⁹⁹

Similarly, the reasons for not reading were also noted as mentioned by sixty-seven adults who spent less than one hour per week in reading. Although the subgroups were too small for statistical analysis, the influences of age and sex were investigated.

It is noted . . . that only older adults gave failing vision or poor health as reasons for not reading, but they were the reasons most frequently given. The reasons for not reading most frequently cited by younger adults of both sexes were that they had no time for reading or that they were engaged in other activities or interests. It may also be noted that more younger women indicated that they had too little education to be able to read.

Among older adults, a larger percentage of women than men (32 per cent difference) indicated vision or poor health as a reason for not reading, but older men indicated that they did not read because they had no desire to read (23 per cent) or because they had no education and could not read (13 per cent more older men than older women). It thus appears that reasons for not reading have more relationship to the variable sex among older adults than among younger adults.¹⁰⁰

Grubb also investigated the use of four types of materials: Newspapers, magazines, books, and the Bible. "The Bible was listed separately because people who said they did not read books would state that they read the Bible and that they read it for purposes different from those in reading other types of materials."¹⁰¹

⁹⁹Ibid., 86.

¹⁰⁰Ibid., 102-104.

¹⁰¹Ibid., 113.

Generally, more older adults read newspapers and more younger adults read magazines, but there was not a significant difference. Significant differences were found for book reading and Bible reading, however.¹⁰²

Books were read sometime during a year by 81 per cent of the adults interviewed. If the sample of book readers is subdivided by age, the percentage distributions show that only 74 per cent of the older adults read books sometime during a year whereas 89 per cent of younger adults read a book one or more times during a year. The 15 per cent difference is significant, and it may be stated that with confidence that more younger adults than older adults read books. . . . 44 per cent of the older adults read the Bible daily as compared to only 19 per cent of the younger adults. This difference was significant at the .05 confidence level.¹⁰³

Parker and Paisley conducted research to perform an exploratory investigation of "instrumental information-seeking behavior in the general public."¹⁰⁴ They investigated the use of both formal and informal communication channels, including the use of the mass media and of interpersonal communication. Their sample was drawn from English-speaking residents over eighteen and no longer in school, who lived in two cities: San Mateo, California and Fresno, California. Five-hundred-and-seventy-five

¹⁰²Ibid., 114.

¹⁰³Ibid., 114-117.

¹⁰⁴Edwin B. Parker and William J. Paisley, Patterns of Adult Information Seeking, Final Report, (Stanford, Calif.: Institute for Communication Research, Stanford University, 1966), I/1, ERIC, ED 010 294

interviews were conducted in San Mateo, and twelve-hundred-and-ninety-four interviews were conducted in Fresno.¹⁰⁵

Of particular interest to this study were their findings on the use of the mass media for purposes of information-seeking. Print sources in the mass media that were examined by the investigators were books, magazines, and newspapers. Age categories were 18 to 39, 40 to 59, and 60 and over. For book reading, differences were noted between San Mateo and Fresno. San Mateo had fifty per cent more college graduates, and more San Mateo residents had read books. Women read more than men, and tended to read fiction, but men read more non-fiction. However, there was a trend for the number of books read to decrease with age.¹⁰⁶

Magazine reading was related to education. There was a much greater magazine consumption rate for adults with college-level education than for those with only a high school education or less. Women, more than men, read magazines for informational use, and a general tendency was noted for magazine reading to decrease with age.¹⁰⁷

Interesting findings also related to newspaper reading. Newspaper reading increased with education when age was held constant, and also tended to increase slightly with age.

¹⁰⁵Ibid., II/2.

¹⁰⁶Ibid., III/26, III/40-42.

¹⁰⁷Ibid., III/37.

Those aged 40 to 59 and those aged 60 or over were more likely to take two or more daily papers than were younger adults.¹⁰⁸

Use of Specific Outlets

Books and other reading materials may be obtained at a variety of outlets. As Ward states, "reading is more than the reading of library books."¹⁰⁹ Two major studies have investigated the use of a number of types of outlets.

The Consumer Research Study on Reading and Book Purchasing divided outlets into purchase and nonpurchase categories. Outlets for purchase included:

Retail bookstore, supermarket/drugstore, book section of department store, book clubs, college/school bookstore, book section of discount store, newsstand, secondhand bookstore, garage sale/flea market/bazaar, religious bookstore, mail order (other than book clubs), travel terminal (airport, bus depot, train station), thrift shop (Salvation Army, Good Will), [and] other.¹¹⁰

The study relates findings regarding the use of particular outlets for purchasing books.

. . . retail bookstores are by far the leading outlet in terms of the incidence of book purchases. More than half (54%) of all book reader/purchasers have acquired books at retail bookstores in the past six months . . . Retail bookstores are also the most frequently visited book purchase outlets.

¹⁰⁸Ibid., III/34-35.

¹⁰⁹Martin L. Ward, Readers and Library Users: A Study of Reading Habits and Public Library Use, with an Introduction by Bryan Luckham (London: The Library Association, 1977), 16.

¹¹⁰Yankelovich, Skelly, and White, Consumer Research Study, 187.

There are a few other book purchase outlets which have been utilized by at least 1 in 5 book reader/purchasers. These include: supermarkets and drugstores (26%), book sections of department stores (20%), and book clubs (20%). Those who purchase books at these outlets buy about as many books at each location as those who purchase from retail bookstores.

There are a few secondhand book outlets (secondhand bookstores, garage sales, etc.) which do appear to pose some "competition" to retail book outlets. Only a small proportion of book reader/purchasers actually use these outlets (i.e., 11% have purchased at secondhand bookstores and 10% at garage sales/flea markets). However, those who do purchase secondhand books actually buy a greater number of such books than at retail outlets--particularly retail bookstores.¹¹¹

Differences were also noted between those who purchase at bookstores, and those who purchase only at other outlets.

Overall, 61% of the book reader/purchasers have purchased books at bookstores, 39% have purchased at other outlets only. These two groups differ from one another on the basis of a few demographic and attitudinal factors, as described below.

Sex

Bookstore purchasers are primarily female--like book purchasers as a group. But, they are more likely to be male than those who do not purchase at bookstores.

Age

Bookstore purchasers are more likely to be under 30 than nonbookstore purchasers. The latter group is composed of a disproportionate number of individuals over age 50, relative to book purchasers as a group. . . .

Main Reason for Reading

Among bookstore purchasers, the pleasure orientation to reading has only a slight edge over the general knowl-

¹¹¹Ibid., 183-184.

edge orientation. Nonbookstore purchasers are much more clearly "pleasure readers."¹¹²

The categorization of nonpurchase outlets by the Consumer Research Study on Reading and Book Purchasing included:

Passed along or borrowed from a friend or relative outside [the] household, borrowed from a public library, borrowed from someone in own household, received as [a] gift, books owned for sometime, borrowed from school or college library, obtained at no cost from school or place of work, rented from library rental section.¹¹³

Interesting findings related to the use of nonpurchase outlets for books included:

While most book readers purchase books for their own reading, purchasing is not necessarily the primary way books are acquired. In fact, the vast majority of book readers (93%) have obtained books in the past six months without purchasing.

Borrowing/trading books on a personal basis is the most common type of nonpurchase book acquisition: more than half of all book readers (57%) have obtained books from friends and/or relatives. The incidence of borrowing/trading books (though not the number of books obtained) actually exceeds the incidence of retail bookstore usage. The identity of book traders is particularly interesting. Book readers receive books passed along by friends to a greater extent than from members of their own households.

There are a few other nonpurchase sources of books whose usage exceeds that of some of the major purchase outlets (aside from retail bookstores). Libraries are an important source of books; half of the book readers obtained books from public or school libraries in the past six months. Gifts are a source of books for one-third of the book readers and schools or places of employment provide books for 1 out of 5 book read-

¹¹²Ibid., 184-185.

¹¹³Ibid., 209.

ers. . . . An overall pattern is for the heavier book reader to rely on a wide variety of sources of books, regardless of whether the books are purchased.¹¹⁴

Watson, in the Canadian study, also investigated a variety of outlets as sources of the most recent book for book readers. They were listed as: public library, school library, other library, bookstore, other store, book club, gift, mail order, borrow friend/family, and other.¹¹⁵

The Bookstore [sic] was the main source of the most recent book (28%), with "borrowing from friends or family" a close second (21%). The other sources are much less important. The next two, "public library" [9%] and "gifts" [12%] together are equal to borrowing as a source. . . .

The youngest age group (15-19 years) obtained the most recent book about equally from the school library, borrowing, and bookstores. But only people over 70 years of age use the bookstore less. The bookstore becomes much more important in the next age group (20-24 years). In fact the relative importance of the bookstore is highest in this age group. From this point on, the bookstore becomes relatively less important with increasing age, and the library relatively more important. The other sources that seem to become relatively more important with age are: gifts, mail order, and to a lesser extent book clubs, although the relative importance of book clubs is stable between the ages of 25 and 65 years.¹¹⁶

The study also asked for the usual sources of books from the previous list. The bookstore (53%), borrowed from friend/family (39%), and the public library (27%), were the three most often cited sources for usual sources of books.¹¹⁷

¹¹⁴Ibid., 205-206.

¹¹⁵Watson, Leisure Reading Habits, 60.

¹¹⁶Ibid., 58-61.

¹¹⁷Ibid., 63.

Grubb's study also investigated the sources of materials read (magazines and books). Sources listed for magazines were subscription, buy at a newsstand/store, gifts or borrowed, read at library, and other (included reading at the doctor's office or beauty parlor). More of those over sixty-five had subscriptions (83 percent as compared to 70 percent of those 25 to 64). More of those 25 to 64 bought magazines at a newsstand or store (41 percent compared to 18 percent of those over sixty-five).

Slightly more of those over sixty-five received magazines as gifts or borrowed them (17 percent compared to 12 percent of those 25 to 64). The same relationship existed for the category "other;" (6 percent of those 25 to 64 and 11 percent of those sixty-five and over). Reading magazines at the library was almost the same for both groups (3 percent of those 25 to 64 and 2 percent of those sixty-five and over).¹¹⁸

Sources listed for books were purchase in [a] store, library, borrow from family/friends, book clubs, and receive as gifts. More of those 25 to 64 purchased books in stores (66 percent compared to 49 percent of those sixty-five and over). More of those sixty-five and over received books as gifts (21 percent as compared to 4 percent of those 25 to 64). Slightly more of those sixty-five and over used the

¹¹⁸Grubb, "Reading Interests and Activity," 228.

remaining categories to obtain books: 39 percent used the library compared to 32 percent of those 25 to 64; 24 percent borrowed from family/friends compared to 21 percent of those 25 to 64; and 14 percent used book clubs compared to 11 percent of those 25 to 64.¹¹⁹

Library Use

It is perhaps belaboring the obvious to say that library use is often associated with reading; in fact, as Ward points out, library use studies generally assume this connection.

A two-way relationship exists between studies of reading habits and those of library use. Studies of public library use reveal an important cross section of general reading habits. . . . [Many] readers depend heavily on the public library for reading materials and the context of library use is easier to study than some other contexts of reading.¹²⁰

In the Consumer Research Study on Reading and Book Purchasing, it was found that age of the library user, education, and the presence of children in the household were likely to influence whether an individual obtained books from libraries.

Age

Young people (under age 21) followed by those between the ages of 30-39 are most likely to be library visitors. Those over the age of 50 are least likely to use libraries.

¹¹⁹Ibid.

¹²⁰Ward, Readers and Library Users, 16.

Education

Those with at least some college education are substantially more likely to be library users than are those with a high school education or less.

Children

Presence of children in a household is favorably associated with library usage. Those with elementary school age or older children are most likely to visit libraries. Those without children in the household are least likely to visit libraries.¹²¹

One inference that might be made is that older adults are also less likely to have children in the household.

Watson, in the Canadian study, also commented on the complex relationship between library use and age.

. . . in the youngest age group, 15 to 19 years, 65% of the population are library users compared with 19% of the 70+ age groups [sic]. So the percentage of the age group who are library users declines with age, as does the percentage of readers--although total reading time (hours) [for older adults who do read] increases with age. . . .

There is an unexpected complexity in the relationship between library use and age. Library visiting decreases with age as previous studies have found; however, the public library seems a relatively more important source of books for older book readers. Among senior citizens there are both a low rate of visits to public libraries, and a high importance of the public library as a source of books. This may reflect a high rate of book borrowing per visit by senior citizens. Almost 14% of book readers among the oldest age group get all their books from a public library. This high proportion of book borrowing from public libraries may reflect the economic appeal of the public library to those persons on fixed incomes. It may also be an indication of public library use developed over many years, or perhaps may reflect the availability in the public library of large print books and books on audio

¹²¹Yankelovich, Skelly, and White, Consumer Research Study, 213.

tape, which are difficult to find through other sources.¹²²

Commenting in a slightly different vein, Watson notes: "The groups that tend to assign relatively more weight to the library as a source of books are: the elderly, the widowed, and the well-educated."¹²³

Grubb's study also investigated the use of libraries by those 25 to 64 and those 65 and over. More younger adults than older adults indicated that they had used a library for some purpose sometime in the past year, but more older adults than younger adults indicated that they had used the library as a source of books.¹²⁴

Grubb also investigated the use of several types of libraries for younger adults (25 to 64) and older adults (65 and over). Public, academic, business, other special libraries, and retirement center libraries were listed as possible selections. Public libraries received high use by both groups (88 percent of younger adults and 85 percent of older adults). Academic libraries received more use by younger adults (20 percent compared to 8 percent of older adults). Retirement center libraries were used only by 8 percent of older adults. Business libraries and other special libraries were used about equally and in the same

¹²²Ibid., 70, 72.

¹²³Ibid., 64.

¹²⁴Grubb, "Reading Interests and Activity," 229.

percentages by both younger and older adults (9 percent and 8 percent respectively).¹²⁵

Grubb also asked about reasons for not visiting the library for younger adults (25 to 64) and older adults (65 and over). The most popular answer for both groups was "no interest." Younger adults were more likely to note that they "had no time," or were "too busy." They were also more likely to "read their own books." Slightly more younger adults than older adults noted that it was "not convenient to go." Older adults were much more likely to select "poor vision or too sick," or "no transportation," as the reasons for not using the library. Very small percentages in each category stated that they "[did] not know where the library [was]."¹²⁶ Grubb concluded that

. . . the reading interests and activity of older adults were found to be related to the availability of library materials and services; however, this relation tended to be strongest among older adults who read books, and the relation seemed to be negligible among older adults who read chiefly newspapers and the Bible.¹²⁷

The general tendency towards decline in library use with age has been noted by others. The National Council on the Aging, reporting in The Myth and Reality of Aging in America in 1975, noted that 52 percent of those 18 to 64 had

¹²⁵Ibid., 230.

¹²⁶Ibid., 231.

¹²⁷Ibid., 255.

visited a library in the past year compared to 22 percent of those 65 and over.¹²⁸ However, when analyzed with regard to education, the number of respondents viewing the library as a "convenient place to go" increased with increasing educational level, with 91 percent of college graduates 65 and over reporting it as convenient, compared to only 55 percent with some high school or less.¹²⁹ In the follow-up study in 1981, 86 percent of those 18 to 64 had visited a library in the past year, compared to 61 percent of those 65 and over.¹³⁰

Parker and Paisley noted relationships among library use, age and education. In their study, they noted that library use tended to decline with age, but that a decline was less likely to occur at higher educational levels.¹³¹

¹²⁸National Council on the Aging, The Myth and Reality of Aging, 177.

¹²⁹Ibid., 175.

¹³⁰National Council on the Aging, Aging in the Eighties, 24.

¹³¹Parker and Paisley, Adult Information Seeking, III/45.

Zweizig developed the following list of predictors of library use, ranked in order of the strength of their relationship to library use.¹³²

- 1) number of professional sources used in past
- 2) amount of book reading
- 3) education
- 4) community involvement
- 5) sex
- 6) age
- 7) amount of newspaper use
- 8) knowledge of the library
- 9) credibility-safety
- 10) dogmatism¹³³

Education and age ranked third and sixth, respectively, as predictors of library use. Zweizig indicated that library use decreases with age, but noted that it has considerable statistical redundancy with education and that education was a "powerful, positive predictor" of library use.¹³⁴ Kronus, using a different statistical technique, differs slightly with Zweizig, concluding that age had no independent effect, but rather a slight indirect effect,

¹³²"Professional sources" referred to professionals as sources of information; "credibility-safety" referred to the degree to which the library was considered to be a safe source of information; "dogmatism" referred to the degree to which a person was open-minded. In Zweizig, "Predicting Amount of Library Use," 259, 261-262, 265.

¹³³Ibid., 263.

¹³⁴Ibid., 209-210, 213-214.

through its relationship with education, since younger adults were more likely to have higher educational levels.¹³⁵

Older Adults' Reading Habits

Other studies focus specifically on the reading interests and habits of older adults. Wolf administered a structured interview questionnaire to 249 people 65 years of age and over and also conducted taped group interviews with 66 people in eleven homes for the aged in Kent County, Michigan.¹³⁶ The purpose was to identify the leisure-time reading behaviors of older adults and to relate the information statistically to demographic characteristics.¹³⁷ Significant results indicated that, although age was not statistically related, education is related to the amount of time spent in leisure reading, with persons with more years of formal education tending to spend more time in leisure time reading per week.¹³⁸

¹³⁵Carol L. Kronus, "Patterns of Adult Library Use: A Regression and Path Analysis," Adult Education 23 (Winter 1973): 128-129.

¹³⁶Ronald Edward Wolf, "The Leisure-Time Reading Behaviors of Persons Sixty-five Years or Older Living Within Homes for the Aged in Kent County, Michigan," (Ph.D. diss., Michigan State University. 1975), abstract.

¹³⁷Ibid., 6.

¹³⁸Ibid., 44-45.

The study also reported on where people obtained the books that they read.¹³⁹ Respondents could choose from the following sources: purchase from a store, visit [the] public library, use of [a] book cart, mailing service, borrow from friends, [receiving books as] gifts, book club, and [use of a] library in the home [for the aged]. The statistical results indicated that older persons received books as gifts more often and younger persons were more likely to use the library in the home [for the aged].¹⁴⁰

Although the majority of respondents did not use any of these sources, some did, and the following preferences were noted. Respondents with more years of education were more likely to use the public library and mailing service, borrow from friends, receive books as gifts, and use the library in the home [for the aged] than were respondents with fewer years of education.¹⁴¹ Males were more likely than females to purchase books from a store, but females were more likely than males to use a mailing service, borrow books from friends, receive books as gifts, and use a book club.¹⁴²

¹³⁹References to "older" and "younger" are to be interpreted within the context of the sample for Wolf's study--people 65 years of age and older.

¹⁴⁰Ibid., 48.

¹⁴¹Ibid., 50.

¹⁴²Ibid., 50-52.

Respondents were also asked to indicate the ages in their lives when they read most intensively: 6-10 years, 11-14 years, 15-20 years, 21-40 years, 41-64 years, and 65 years or older. The periods 6-10 years, 11-14 years, and 15-20 years were statistically significant, with women choosing each period more often than men. None of the remaining periods was shown to be statistically significant.¹⁴³ When education was correlated with each period, it was found to be significant for all periods except age 65 and over. Respondents with more years of education, and women more than men, tended to read more throughout their lifespan, except for the period 65 years or older, when that was not necessarily the case.¹⁴⁴

Education was also significant in another respect. Respondents with more formal education were more likely to indicate that reading had helped them to solve a problem, relieved psychological tension, or had just helped them to feel better about themselves than were persons with less education.¹⁴⁵

Wolf asked about reasons for restricted reading.

Older respondents and self-employed respondents most often listed "eye problems" as reasons for restricted reading. Women were more likely than men to indicate that [sufficient] large-type materials [were not available], other social activities, and other reasons

¹⁴³Ibid., 68-70.

¹⁴⁴Ibid., 71.

¹⁴⁵Ibid., 75.

restricted reading. Unskilled laborers most often listed "get too sleepy" as a reason for restricted reading. Respondents in the "professional" former occupation group more often than the other occupation groups cited "other reasons" to explain restricted reading.¹⁴⁶

Reasons for reading were also investigated.

Older respondents more often read to fill a spiritual need. Persons with more formal education read for pleasure and relaxation, conversation with others, self-improvement, practical information for daily living, and for other reasons. Women, more often than men, read in order to converse with others. Divorced and widowed respondents were least likely to read for purposes related to a hobby. Self-employed respondents were more likely to read for information concerning the practical demands of daily living than the other occupation groups.¹⁴⁷

Rebottini administered interview questionnaires to fifty older adults living in the community in Monongalia and Marion Counties in West Virginia.¹⁴⁸ Preferences for newspapers, mail, magazines, and books were investigated, along with preferences for subject matter within each category of material.

Respondents ranked newspapers, mail, magazines, and books in that order as preferred types of reading material. Individuals with higher educational levels preferred newspapers, magazines, mail, and books, in that order.¹⁴⁹ Subjects were also asked whether the length of a reading

¹⁴⁶Ibid., 91.

¹⁴⁷Ibid., 83.

¹⁴⁸Rebottini, "Reading Interests and Habits," 30-31, 41.

¹⁴⁹Ibid., 42.

passage had an effect upon the selection of reading material. Fifty-two percent answered affirmatively, and preferred the length of newspaper articles over magazines, short stories, and novels, in that order.¹⁵⁰ One finding noted the popularity of the Reader's Digest format with these respondents and suggested the need for further investigation.¹⁵¹

Respondents were also asked to keep diaries of the time spent reading. On average, adults who kept the diary read an average of two and one-half hours per day.¹⁵²

A portion of Grubb's study focused specifically on adults sixty-five years of age and over, and investigated the relationship between life satisfaction or a feeling of well-being and the amount of time spent in reading. Grubb used an instrument developed by Bernice L. Neugarten and Robert J. Havighurst, called the Life Satisfaction Index Z, which consisted of eighteen statements to which all respondents were asked if they agreed, disagreed, or were undecided.¹⁵³

The 20 per cent difference between older adults who spent four hours or more per week in reading and those who spend less than one hour per week in reading

¹⁵⁰Ibid., 43-44.

¹⁵¹Ibid., 110-111.

¹⁵²Ibid., 67.

¹⁵³Grubb, "Reading Interests and Activity," 173.

indicates that reading time does have a significant effect on life satisfaction.¹⁵⁴

The relationship between life satisfaction (or a feeling of well-being in older adults) and variety in reading interests was also investigated. Variety in reading interests was defined as "the number of different subjects a respondent indicated an interest in reading when he or she named the parts of the newspaper read, the types of magazines read, and the types of books read."¹⁵⁵

Respondents could indicate that they were not readers, that they were interested in 1 to 3 subjects, 4 to 7 subjects, or 8 or more subjects. ". . . the differences between the scores of nonreaders and of those who expressed a reading interest in four or more subjects were significant at the .05 confidence level."¹⁵⁶

Sibold conducted a study in Phoenix, Arizona of persons sixty-five years of age and over from two settings, a retirement home and a social club.¹⁵⁷ The purpose was to ". . . generate theory rather than to verify theory."¹⁵⁸ Participant observation, questionnaires, and unstructured

¹⁵⁴ibid., 193.

¹⁵⁵Ibid.

¹⁵⁶Ibid., 194.

¹⁵⁷Claire Vincent Sibold, "The Reading and Televiewing Habits and Interests of the Elderly," (Ph. D. diss., Arizona State University, 1984), 19, 21.

¹⁵⁸Ibid., 120.

interviews contributed to the methodology, and data triangulation was used to compare the results from the three methods. Field notes were coded and analyzed using an ethnographic computer program.¹⁵⁹

Ninety-seven persons responded to the questionnaire: fifty-one were from the retirement facility, and forty-six that were contacted through the social club lived in private homes, apartments, or trailer homes. Twelve members each from the retirement home and social club, for a total of twenty-four, participated in the unstructured interviews. Those from the social club were categorized as being more independent and mobile than those in the retirement home.¹⁶⁰

Sibold commented on the access that the elderly had to reading materials. Those in the retirement facility were perceived to have less access to reading materials than members of the social club. For residents of the retirement facility, a bookmobile was available, but fewer than 5 percent used it, although those who did, used it regularly. No one in the retirement facility, to Sibold's knowledge, used the public library. A collection of 150 books, magazines, and newspapers (mostly donated materials), was available in the lounge. Friends and families, nursing staff, subscriptions, and newspaper delivery were also

¹⁵⁹Ibid., 42-44, 120.

¹⁶⁰Ibid., 35-39.

sources for reading material. A majority, 67 percent, of the residents indicated a preference for reading over watching television. In personal interviews, residents indicated that they spent one to two hours reading daily.¹⁶¹

Members of the social club had personal collections, subscribed to magazines and newspapers, and had access to reading materials at the club. Other resources utilized were the church library and the public library, which was within three blocks of the social club. A majority, 54.9 percent, of the members indicated a preference for reading over watching television. In personal interviews, the members of the social club indicated that they spent two to three hours reading daily.¹⁶²

Sibold's investigations lead to the development of a "theory of the reading and televiewing habits and interests of the elderly," based on an individual's self-perceived health. As she states, "at the heart of this theory is self-perceived health which is often the 'reality,' of whether or not the individual is actually suffering from poor physical or mental health."¹⁶³ Sibold developed six propositions based on the theory as bases for further investigation. Proposition 4 states that "if an elderly

¹⁶¹Ibid., 60-61, 91, 103.

¹⁶²Ibid., 61-62, 91, 103.

¹⁶³Ibid., 128-129.

person perceives his or her health to be poor, then he or she is less likely to have reading materials available." Similarly, Proposition 5 says that "if an elderly person is physically or mentally incapacitated, then he or she will not read or watch television as much as the individual who is in relatively good health."¹⁶⁴

Environmental Constraints

Television

Television plays a large role in the information acquisition habits of adults in our society, and has received a great deal of attention from researchers. Many of the previously mentioned studies also investigated television viewing habits, since television viewing is another discretionary life and leisure activity that may be chosen by the older adult, as well as an alternative means of information acquisition.

The participants in the Pfeiffer and Davis study ranked television viewing and radio listening higher than reading and second only to work related activities. Men averaged 11.6 hours of viewing/listening per week, and women averaged 13.2 hours of viewing/listening per week, with television viewing (based on the interviewer's perception) accounting

¹⁶⁴Ibid., 129.

for a majority of the time. The time spent increased significantly with age for women.¹⁶⁵

Television viewing ranked higher than reading in the Beyer and Woods study. Seventy percent of the participants had engaged in viewing, for a median of three hours per day.¹⁶⁶ Rebottini investigated the importance of television and found that 56 percent of the sample felt that television was more important than reading. Forty percent thought that both choices--television and reading--were equally viable, and that the choice was dependent on subject matter and time.¹⁶⁷

The 1981 study by the National Council on the Aging comparing results to the 1975 study by the same organization, reported that television viewing as an activity "at which a lot of time is spent" had dropped from 36 percent to 31 percent among older adults.¹⁶⁸ Television viewing was engaged in approximately equally by all age groups in the Houston Study of Leisure Across the Life Span, and did not suffer a decline with age, as did reading.¹⁶⁹

¹⁶⁵Pfeiffer and Davis, "Use of Leisure Time," 189-190.

¹⁶⁶Beyer and Woods, quoted in Lawton, "The Impact of the Environment," 282.

¹⁶⁷Rebottini, "Reading Interests and Habits," 93.

¹⁶⁸National Council on the Aging, Aging in the Eighties, 21.

¹⁶⁹Gordon and Gaitz, "Leisure and Lives," 327.

Studies of adult reading habits have often included data on television viewing, since television viewing may be a competitor for time that otherwise might be spent in reading. The Consumer Research Study on Reading and Book Purchasing reported that book readers spent slightly less time (15 hours per week) in television viewing than did newspaper and magazine readers (16 hours per week), or non-readers (24 hours per week).¹⁷⁰

Methodological considerations may account for the differences Watson noted for Canadians.¹⁷¹ Canadian book readers, however, also spent less time in television viewing (13.2 hours per week) than did magazine and book readers (14.9 hours per week), or non-readers (13.7 hours per week).¹⁷²

Watson also asked about a variety of leisure activities, and controlled for age and education. As people got older, with education held constant, the amount of television viewing tended to increase moderately. As education increased, with age held constant, television viewing tended to decrease.¹⁷³

¹⁷⁰Yankelovich, Skelly, and White, Consumer Research Study, 67.

¹⁷¹Watson, Leisure Reading Habits, 99.

¹⁷²Ibid., 100.

¹⁷³Ibid., 109.

Parker and Paisley indicated that education was an important determinant of television viewing. College educated adults watched less television than those with lower levels of education. There tended to more use of the television for entertainment, except for older people who used television for information.¹⁷⁴

The role of television in the lives of older adults has also been investigated for its own sake. Davis suggests that "the social circumstances of the aged are the most commonly cited reason for the popularity of television viewing. Television, after all, is easily accessible, offers a variety of choices, is entertaining and educational, and is comparatively free of cost."¹⁷⁵ Further, he draws from existing research the following generalizations about the older television audience:

1. The older population is a dependable, constant, often housebound and captive audience.
2. It has a high status of availability.
3. The audience has been called "embracers" because of a demonstrated dependency to accept without question and with gratitude whatever programming is available to them.
4. It is the basis of shared experience; a valuable common denominator with the rest of society.
5. The television is a companion; the performer or personality is a non-judgmental friend.

¹⁷⁴Parker and Paisley, Adult Information Seeking, III/29.

¹⁷⁵Richard H. Davis, Television and the Aging Audience (Los Angeles: University of Southern California Press, 1980), 42.

6. Television provides the single and strongest, the most preferred source of news and information.¹⁷⁶

Commenting on the accessibility of television for older adults, Davis notes that "for many older persons news as presented in the print media becomes more difficult to access. The capsulized version of public events offered on television is an easier and more attractive method for keeping in touch with what is going on."¹⁷⁷

Besides the popularity of news programming, he notes the popularity of dramatic programs with women, both young and old, the preference of older females for situation comedy and variety, and the preference of older adults for suspense/mystery show formats and soap operas.¹⁷⁸

A recent comment in TV Guide notes, that even though the over-fifty group comprises approximately one-quarter of all viewers, nearly 60 percent of the viewers for CBS's "Matlock" and NBC's "Murder She Wrote," popular dramatic suspense/mystery series, are in the over-fifty group. Both shows consistently rank in the ratings top twenty despite poor ratings with younger audiences (under age 35).¹⁷⁹

¹⁷⁶Ibid., 43.

¹⁷⁷Ibid., 44.

¹⁷⁸Ibid., 49.

¹⁷⁹David Gunzerath, "The Ratings Race: Older Viewers Boost Network Hits," TV Guide, 36 (June 18, 1988), A-2.

More recently, another comment in the same publication noted that when NBC recently shifted the program "Unsolved Mysteries" to series status in the Wednesday 8-9 P.M. (ET) time slot opposite ABC's popular series "Growing Pains" and "Head of the Class," it did quite well, owing to success among viewers over 35. For the first fifteen weeks, "Unsolved Mysteries" averaged a 16.1 rating and a 26 share to "Growing Pains" 17.0 rating/28 share and a 16.6 rating/26 share for "Head of the Class."¹⁸⁰

Appealing to older audiences does not unfailingly lead to ratings success, however. "This [the success of 'Unsolved Mysteries'], incidentally, helped deal a fatal blow to CBS's 'The Van Dyke Show' and 'Annie McGuire'. Both shows were geared toward an older audience--which, in the end, turned overwhelmingly to 'Unsolved Mysteries.'"¹⁸¹ Similarly, although more than two-thirds of the audience for CBS's December 30, 1988 broadcast of "The Kennedy Center Honors" was over age 50, it had only an 8.6 rating and a 15 share.¹⁸²

¹⁸⁰Ibid.

¹⁸¹David Gunzerath, "The Ratings Race: Mysteries Grabs Older Audience," TV Guide, 37 (January 14, 1989) A-3, A-25.

¹⁸²David Gunzerath, "The Ratings Race: Rating Points," TV Guide 37 (January 14, 1989), A-25.

Radio

Studies of adult reading habits have also included information on radio listening. The Consumer Research Study on Reading and Book Purchasing found that book readers, newspaper and magazine readers, and non-readers, spent sixteen, fourteen, and seventeen hours respectively listening to the radio.¹⁸³

Watson, noting methodological differences, observed that Canadian book readers, magazine and book readers, and non-readers, spent 7.5, 7.9, and 6.5 hours, respectively, listening to the radio.¹⁸⁴ When education and age were controlled for, Watson found that radio listening tended to increase with increasing age, but that there was no clear pattern associated with increasing education.¹⁸⁵

Parker and Paisley noted that radio use declined with age, but that use of the radio for informational purposes increases with age, even though the general consumption level declined.¹⁸⁶ Rebottini found that radio listening was ranked lower than television watching, but higher than moviegoing. Listening to news on the radio was popular,

¹⁸³Yankelovich, Skelly, and White, Consumer Research Study, 67.

¹⁸⁴Watson, Leisure Reading Habits, 99-100.

¹⁸⁵Ibid., 109.

¹⁸⁶Parker and Paisley, Adult Information Seeking, III/32.

since music programming did not always meet listening preferences.¹⁸⁷ The 1981 study by the National Council on the Aging found that only 25 percent of those 65 and over reported radio listening as an activity "at which a lot of time is spent" compared to 41 percent of those 18-64 years of age.¹⁸⁸

The Radio Reading Service, a service for visually impaired people which provides current events information over a sub-channel of public radio FM stations, is very popular with older adults.¹⁸⁹ One estimate places the over-sixty-five audience in the 60 percent range.¹⁹⁰

Transportation

Transportation is a vital element in the lives of most adults, and has been exhaustively examined in terms of its role in the lives of older adults. Lawton notes that

Transportation facilities are a unique form of resource, almost always functioning as means of facilitating access to other life-supporting and life-enriching facilities, rather than being ends in themselves. Adequate transportation may act as a

¹⁸⁷Rebottini, "Reading Interests and Habits," 93.

¹⁸⁸National Council on the Aging, Aging in the Eighties, 22.

¹⁸⁹Mary Jack Wintle and Catherine Archer, "Materials and Publishers," chap. in That All May Read: Library Services for Blind and Physically Handicapped People, (Washington, D.C.: National Library Service for the Blind and Physically Handicapped, Library of Congress, 1979), 252.

¹⁹⁰Robert Watson, Minnesota State Services for the Blind, Engineering Manager, interview by author, 29 March 1988.

functional equivalent to proximity to the resource, as seen in the virtually unlimited accessibility of far-flung resources to the affluent automobile driver.¹⁹¹

Commenting on the same theme, Carp notes that

Unless old people can meet all their needs within the confines of their own homes their satisfaction depends upon their mobility into the wider community, and this in turn is contingent upon the transportation facilities available.¹⁹²

Explaining the importance of various forms of transportation in the lives of the elderly, she then reports that "driving a private automobile is the only mode of transportation that is generally preferred among the elderly, and it is the only one rated equally favorably by those who do it and those who do not."¹⁹³ The compounding of visual deficiencies and other ailments with age may make driving an increasingly difficult task for older persons.

If older persons become unable to drive, the possibility still exists that they may ride as passengers in another car. Such assistance often comes from a spouse or from families, particularly if they live nearby, for family visits, visits to the doctor, and for grocery shopping. Rides are not as commonly provided by family members to

¹⁹¹Lawton, "Impact of the Environment," 280.

¹⁹²Frances M. Carp, "Improving the Functional Quality of Housing and Environments for the Elderly Through Transportation," in Environmental Context of Aging: Life-styles, Environmental Quality, and Living Arrangements, ed. Thomas O. Byerts, Sandra C. Howell, and Leon A. Pastalan, (New York: Garland STPM Press, 1979), 127.

¹⁹³Ibid., 130.

destinations other than these and it is still less likely that rides will be provided by unrelated people.¹⁹⁴

Mass transit may provide an alternative to the loss of personal vehicular mobility, but problems may arise for the elderly. In fact, ". . . the old people least likely to have their own cars and most likely to have problems if they drive are those least capable of using mass transit. These are the often multiply deprived by reason of health, education, and minority status." Economic barriers caused by fixed incomes and difficulties caused by inconvenient scheduling can compound the problems.¹⁹⁵

Taxi service is commonly available only in urban areas, and its use is limited to those able to pay.¹⁹⁶ Walking, when one is young and in good health, can be an option, but when older, it ". . . may be impossible when one is ill and most urgently in need of a visit to the doctor, and difficult when shopping for groceries."¹⁹⁷

Special transportation services for the elderly have developed as a response to some of the limitations of other forms of transportation. These are commonly characterized by personalized service: the driver may assist with

¹⁹⁴Ibid., 131.

¹⁹⁵Ibid., 132-133.

¹⁹⁶Ibid., 135-136.

¹⁹⁷Ibid., 137.

boarding and may serve as an escort to and from the door, assisting with packages if necessary. Another feature may be "demand-responsiveness"; with prior notice, the service can meet individual requirements for times and places of pick-up and delivery.¹⁹⁸ Such services may be community based or may be offered through the residential setting.

Delivery services may serve as yet another solution to barriers imposed by lack of transportation, if they are available. Groceries and prescriptions are sometimes available by this method.¹⁹⁹

Bringing the library to older adults: outreach, deposit collections, bookmobiles, and books by mail

Libraries have commonly used a variety of methods to overcome barriers to access posed by an older adult's lack of mobility and transportation. Delivery of materials to the homebound elderly is quite common as a choice for service delivery among libraries that provide services to the elderly. One particular benefit of this type of service is the personal contact with older adults. As Evelyn Hirsch of the Allard K. Lowenstein Public Library in Long Beach, New York, writes, "it has become apparent that most of these

¹⁹⁸Ibid., 137-138.

¹⁹⁹Ibid., 137.

patrons look forward to the visit itself, perhaps even more than to receiving the materials."²⁰⁰

Deposit collections are another popular method of overcoming barriers to access. The Joliet Public Library and the Starved Rock Library System in Illinois are only two examples of libraries that developed large-print deposit collections with Library Services and Construction Act (LSCA) funds.²⁰¹

Bookmobiles have been another popular method of service delivery and specific instances can be found in the literature of their popularity with older adults. The Buffalo and Erie County Public Library, in New York state, utilizes the "Lookie Bookie," a multi-media mobile library van, which provides programming and library service for health care facilities, health-related senior citizen centers, and independent residences geared to senior citizens.²⁰² The Albany Public Library, in Albany, New York, has a mobile service that delivers materials to a variety of facilities for older adults.²⁰³ A cooperative effort between a school

²⁰⁰Evelyn B. Hirsch, "Homebound and Senior Citizen Service at the Allard K. Lowenstein Public Library," The Bookmark 42 (Winter 1984), 99-100.

²⁰¹"LSCA Projects-Serving Our Senior Citizens," Illinois Libraries 69 (May 1987): 333.

²⁰²William A. Miles, "The Aged, the Elderly, the Senior Citizen: We Serve Them All," The Bookmark 42 (Winter 1984), 84.

²⁰³Gloria Freedman, "Albany Public Library: A Viable Option for the Older Citizen," The Bookmark 42 (Winter

district and public library in Florida resulted in the development of a bookmobile service for older adults.²⁰⁴

Books by mail is another type of service that can be utilized by older adults. The Mohawk Valley Library System in Schenectady, New York, provides such a system for large-print books.²⁰⁵ The SAGE Program of Brooklyn Public Library in Brooklyn, New York, also provides access to a books by mail service.²⁰⁶

The presentation of special programming for older adults is still another type of service. The SAGE Program at Brooklyn Public Library in New York is only one example of this type of service delivery.²⁰⁷

The respondents in Wolf's study confirmed the interest of older adults in these services. For group interviews, sixty-six older adults were selected from the sample.²⁰⁸ The following three questions about library services and reading

1984), 93.

²⁰⁴Carol M. Keyes, "The Development and Implementation of a Bookmobile Project for Elderly Patrons in Pasco, County, Florida, (Problem in lieu of thesis, North Texas State University [University of North Texas], 1985), 2.

²⁰⁵Jane Somers, "A Rural Library System Reaches Out to Older Adults," The Bookmark 42 (Winter 1984), 87.

²⁰⁶Allan M. Kleiman, "SAGE: Brooklyn's Response to the Aging," The Bookmark 42 (Winter 1984), 80.

²⁰⁷Ibid., 77-78.

²⁰⁸Wolf, "Leisure-Time Reading Behaviors," 32.

were discussed in the group interviews, but the results were not designed for statistical analysis.

Question 1

How could your reading needs be met more adequately today? . . .

Question 2

A few public libraries provide special services to older persons such as bookmobiles, book mailing services, and having older persons review books. There are persons who feel that such programs are a waste of time and older persons just want to be left alone and not involved.

- (a) Do you think the older person does want to get involved in library services?
- (b) What could be done to promote that involvement? . . .

Question 3

Some older persons indicate that they are not interested in reading because they have gone to school only a few years. What do you think librarians or publishers could do to interest such persons in reading? . . .²⁰⁹

Wolf summarized the results of the group interviews in the following comments.

Respondents were in 100% agreement that the services of the public library filled a definite need for older persons. . . . Also, book reviews and discussion groups interested 35% of the respondents. Eighty percent made special mention of the book mailing service for Kent County as being especially useful and needed. . . .

The major reading needs mentioned by the respondents were for the public library to increase efforts to interest the older person in library services, to provide more large print books, to maintain libraries in each home [for the aged], and to provide a fresh supply of books. The older person does want to become involved with public library programs. In general, the respondents stated that it was extremely difficult to

²⁰⁹Ibid., 91-92.

interest a person in reading who previously was not interested. Individuals might become interested in reading if their reading interests were determined, large print books available, and materials of high interest and low vocabulary provided.²¹⁰

Physical accessibility of facilities

Although many older adults will experience only the decrements of normal aging, others will experience more severe disability. Attention paid to barrier-free design and other aspects of access will ensure that older adults are able to remain functionally independent members of the community, with consequent delay or perhaps avoidance of loss of mobility, and the ability to continue to use many external channels of distribution, including the library.

Leonhardt states that, "full accessibility for the handicapped means convenient access for all," in describing the benefits of thoughtful design and convenient access for older adults.²¹¹ In addition, she describes a number of aids for the handicapped that may be useful to older adults. Visualetek and Masterlens print magnifiers, the Kurzweil Reading Machine, and a Telecaption adapter for the hearing impaired, are significant examples.²¹² Freedman similarly describes aids available at the Albany Public Library, in

²¹⁰Ibid., 92, 94.

²¹¹Margaret D. Leonhardt, "Dealing with the Aging at the Schenectady County Public Library," The Bookmark 42 (Winter 1984), 95.

²¹²Ibid.

addition to noting the taping of materials for the visually impaired by retired volunteers.²¹³

Personal Constraints

Homeostatic Loss and General Health

Gerontologists have exhaustively investigated the biological aspects of aging. Aging is, after all, a physiological process of change. The direction of change is of loss or decline, although it tends to be gradual. As Koncelik reports,

. . . these changes are "normal" in that they are not necessarily related to pathological conditions of disease or chronic ailments. . . . While the rate and the amount of loss vary with individuals, every person experiences these physiological changes to some degree during the aging process.²¹⁴

One of the fundamental elements of physiological changes with age is homeostatic loss.

Homeostasis is the state of equilibrium or balance of all the functions of the body. The human organism interacts with its environment to sustain itself and through breathing, eating, eliminating wastes, and repairing damaged tissue regulates itself to achieve equilibrium. . . . A young adult may possess several times the capacity to produce and pump blood or to expend energy continuously than he or she needs when in a state of equilibrium. This reserve capacity is essential in bringing the bodily functions back to a normal steady state when the need for exertion ceases.²¹⁵

²¹³Freedman, "Albany Public Library," 93.

²¹⁴Koncelik, "Human Factors," 108.

²¹⁵Ibid.

The age when homeostatic decline begins varies widely with individuals, but at some point after the age of thirty, the loss of reserve capacity begins.²¹⁶ "The importance of understanding homeostasis . . . is that it is activity limiting."²¹⁷ People generally become more passive as this process occurs. Older people may curtail the distances that they walk, avoid stairs and ramps of any distance, and avoid rushing to perform daily activities, but since the process is usually gradual, a compensatory psychological adjustment and process of adaptation occurs, so that the routines of daily living can be maintained.²¹⁸

General health may be affected by homeostatic loss. "While cellular function remains unaffected, loss of performance at the organ level occurs. With this decrease comes a concurrent reduction in overall body metabolism and resistance to disease, a state referred to as senescence."²¹⁹

Shanas and Maddox state that "in practice, health in the aged is usually defined in one of two ways: in terms of the presence or absence of disease, or in terms of how well the older person functions or his general sense of well-

²¹⁶Ibid.

²¹⁷Ibid., 109.

²¹⁸Ibid.

²¹⁹Ibid.

being.'"²²⁰ Commenting that truly objective measures of health are extremely difficult to obtain in terms of a medical model because of the possible variations in the individual's physiological responses at different times, variance in testing procedures, and variety of interpretations by physicians, Shanas and Maddox discuss research that has evaluated the functional approach to health assessment in the elderly.

A body of research exists which has examined the degree of correlation between older adults' self-assessment of their health as being "good" or "poor," for instance, and a corresponding rating of their health based on examinations by physicians. Such studies have supported the validity of older adults' self-reports of health status, to the extent that geriatricians, medical doctors specializing in the treatment of older people, have accepted functional diagnosis as a valuable tool.²²¹

Visual and Auditory Impairments

Another type of universal physiological change occurs with aging: sensory losses in vision and hearing may occur in one or both senses to varying degrees. Such impairments

²²⁰Ethel Shanas and George L. Maddox, "Health, Health Resources, and the Utilization of Care," in Handbook of Aging and the Social Sciences, 2d ed., ed. Robert H. Binstock and Ethel Shanas, (New York: Van Nostrand Reinhold, 1985), 701.

²²¹Ibid., 701-703.

introduce problems for older adults as they try to negotiate the man-made environment.

Visual impairments

Visual decrements are more common with age and certain eye complaints become more likely to occur. Presbyopia, a gradual loss in the ability to focus on close objects or to see small print, becomes more common after age forty. Floaters are usually harmless specks that drift across the field of vision but, if associated with light flashes, may indicate eye problems. Dry eyes, caused by the production of too few tears, can cause itching, burning, or reduced vision. These complaints may be symptomatic of more serious problems, but can many times be corrected with proper lenses, medical treatments, or prescriptions. Tearing may be indicative of an increased sensitivity to light, wind, or temperature, or more serious problems, such as an eye infection or blocked tear duct.²²² The lens of the eye also thickens and yellows with age, and changes in color perception occur, especially with blue-green discrimination.²²³

²²²"AGE PAGE: Aging and Your Eyes," (n.p.: National Institute on Aging, [1983]), 1.

²²³Leon A. Pastalan, "Sensory Changes and Environmental Behavior," in Environmental Context of Aging: Life-styles, Environmental Quality, and Living Arrangements, ed. Thomas O. Byerts, Sandra C. Howell, and Leon O. Pastalan, New York: Garland STPM Press, 1979, 120-122.

More serious are certain eye diseases that are more common among the elderly. Early diagnosis and appropriate treatment can often prevent severe visual impairment from these diseases. Glaucoma is caused when there is too much fluid pressure in the eye, but the underlying cause is often not known. Early diagnosis and appropriate medical treatment are the key to preventing blindness from this disease.

The leading causes of blindness in the United States are retinal disorders. Senile macular degeneration occurs when the macula (the part of the retina responsible for sharp central and reading vision) ceases to function efficiently. Early detection may allow for the treatment of some cases with lasers. Diabetic retinopathy, one possible complication of diabetes, occurs when small blood vessels in the retina fail to nourish it properly. Retinal detachment is caused by a separation between inner and outer layers of the retina. Surgical re-attachment and laser treatments can often be used successfully with good or partial visual restoration. Part or all of the transparent lens inside the eye can be gradually clouded by cataracts.²²⁴

Older adults' visual problems may interfere with information acquisition for a time, but if such problems can be treated successfully, activities related to information acquisition may be resumed at similar or higher levels than

²²⁴"Aging and Your Eyes," 2-3.

before the problem first occurred. Surgical removal of cataracts is a commonly performed, safe procedure that has a high success rate.

One recent study, although not a clinical trial, evaluated the impact of cataract surgery and levels of improvement in vision and vision-dependent activities. The study followed the progress of 293 elderly patients after cataract surgery, ranging in age from seventy to ninety-five years, at four-month and one-year intervals. Data were initially collected on visual acuity and both subjective and objective measures of patient function, including the Functional Assessment Inventory.²²⁵

The surgery improved visual acuity in the surgical eye from a mean of 20/100 before surgery to 20/40 at four months. Improvements in binocular vision as measured by the percentage of visual impairment were also shown. Visual impairment decreased significantly from 47 percent before surgery to 21 percent at four months and was still only 24 percent at one year, which was not significantly different from visual impairment at four months.²²⁶

Patients' self-rating of vision and of the ability to perform vision-dependent tasks also improved after surgery.

²²⁵William B. Applegate and others, "Impact of Cataract Surgery with Lens Implantation on Vision and Physical Function in Elderly Patients," Journal of the American Medical Association 257 (February 27, 1987): 1064-1065.

²²⁶Ibid., 1065.

Ninety-one percent of the patients rated their vision as fair or poor before surgery, but at four months, 66 percent rated their vision as excellent or good. Patients who reported that they were able to drive a car increased from 21 percent before surgery to 34 percent at one year. The number of patients who could read a newspaper increased from 62 percent to 68 percent, but the number who could watch television did not change.²²⁷

Interaction of older adults with the print environment.

The impact of visual problems on reading activities and on interaction with the larger environment may have effects ranging from subtle to dramatic. Pastalan reported on research on changes in visual perception with age.

Glare from uncontrolled natural light and from unbalanced artificial light sources was the single most ubiquitous difficulty encountered. For instance, when walking up an aisle toward the front of a supermarket the typical vast expanse of plate glass across the front of the store on a bright day serves to obliterate most of the detail in surrounding objects. If only a single intense artificial light source is used for illumination rather than several, the chances of inducing uncomfortable glare is increased.

Colors all tended to fade; the cool colors such as green and blue faded most while red faded the least. . . .

Depth perception is affected. Frequently it is difficult to judge risers and treads going down a flight of stairs, particularly when stairs are carpeted with a floral-print carpet or painted the same color.

There was difficulty in eye accommodation to change in light intensity when moving from a lighted area to a dark area or vice versa. The abrupt movement from an area having too much light to an area having

²²⁷Ibid.

too little should be avoided or mitigated with transitional lighting arrangements.

Dark wall surfaces bounded immediately by windows admitting bright sunlight made it difficult to see objects located near the walls. Again, the extreme in contrast needs to be reduced.

Ability to discriminate fine visual detail was seriously impaired. The reading of printed information such as names on people's doors, directional signing in hallways of public buildings, hospitals, stores, and the like were continual burdens.²²⁸

Pastalan also noted difficulty for older adults in perceiving boundaries of contrasting surfaces, which he called contouring. When, for instance, red and green, two intense colors, bound each other, edges can appear to blur and shift, or, conversely, closely related colors such as blue and green tend to blend into each other. Contouring can cause the most problems when an older person has to negotiate stairs or distinguish floor from wall surfaces.²²⁹

Large print. Reading "fine print" is a problem that becomes more common with age because of visual difficulties. Low vision aids such as telescopic glasses, light-filtering lenses, and magnifying glasses often improve reading capabilities to the point that an individual can continue to read regular print.²³⁰

Large print is another compensatory strategy that allows older adults to continue to interact with the print

²²⁸Pastalan, "Sensory Changes," 121-122.

²²⁹Ibid., 122.

²³⁰"Aging and Your Eyes," 2-3.

environment. Muriel C. Javelin traces the development of large-print books from their introduction in 1964 in England through the mid-1970s.²³¹ The number of large-print books published annually in the United States has continued to grow slowly. Large Type Books in Print, the annual publication of the R.R. Bowker Company, listed 1,200 titles in 1970; ²³² the 1987 edition listed more than 7,000 titles.²³³

The circulation of large print materials is often a popular library service for older adults. The National Library Survey of Services to the Aging noted that 608, of 638 responding libraries offered this service.²³⁴ The update, produced by Betty Turock, noted that 288 of 318, or 91 percent, offered this service.²³⁵ However, the survey conducted in Illinois reports that only 11, or 5 percent, of

²³¹Javelin, "How Library Service to the Aging Has Developed," 376-378.

²³²Eunice Lovejoy, "History and Standards," chap. in That All May Read: Library Service for Blind and Physically Handicapped People, (Washington, D.C.: National Library Service for the Blind and Physically Handicapped, Library of Congress, 1979), 15.

²³³R.R. Bowker, 1987-88 Catalog, (New York: R.R. Bowker, 1987), 17.

²³⁴Cleveland Public Library, National Library Survey, EXHIBIT IX.

²³⁵Turock, "Public Library Service," 146.

the 219 libraries offering services to older adults, provided the service.²³⁶

Considerable research on large print has been conducted in England. Alison Shaw's Print for Partial Sight, the report of her research into the effectiveness of various elements of large print typography, emphasized that type size (primarily), and type weight or boldness (secondarily), had the greatest effect on legibility of print for the partially sighted.²³⁷ Bell, in her study, commented, that

. . . the great majority of librarians everywhere regarded large print books as books for elderly readers, of whom they knew there was a tremendous and ever-increasing number, rather than as books for partially sighted readers of whom there seemed to them to be extremely few in their libraries.²³⁸

Bell confirmed this by observing that, of 802 readers, borrowers, and browsers of large print books observed in seven settings, "people of 60 and over formed just over 64% of the people seen at the shelves and 84.5% of the actual readers."²³⁹

²³⁶Illinois State Library, Services for the Elderly, 32, 34.

²³⁷Alison Shaw, Print for Partial Sight: A Report to the Library Association Sub-Committee on Books for Readers with Defective Sight (London: The Library Association, 1969), 57-61.

²³⁸Lorna J. Bell, The Large Print Book and its User, (London: British National Bibliography Research Fund in association with The Library Association, 1980), 79.

²³⁹Ibid., 160-161.

Wolf asked respondents in his study about their awareness of large print, and found some interesting results related to occupation.

The majority of respondents in the study knew that large-print editions of books existed. Farmers and self-employed occupation groups most frequently read large print books. Persons with the former occupation of "sales" were least likely to read large print books. Other former occupation groups "hardly ever read" large print books.²⁴⁰

The National Library Service for the Blind and Physically Handicapped. Serving as a compensatory strategy for those whose visual or physical impairment is so severe that reading regular print books is either very difficult or impossible, the National Library Service for the Blind and Physically Handicapped (NLSBPH) in the Library of Congress was founded in 1931 by authorizing legislation known as the Pratt-Smoot Act.²⁴¹ The present network system can be described as follows:

The nationwide network of agencies cooperating with the National Library Service for the Blind and Physically Handicapped (NLS) in Washington, D.C., includes hundreds of state and local agencies: regional libraries, subregional libraries, deposit and demonstration collections, multistate centers, and machine lending agencies. NLS provides recorded and braille books and magazines for recreational and informational reading, sound playback equipment, reference and bibliographic support, publications, and coordinating support. Network agencies provide space, staff, and all aspects of library service to persons certified by a competent authority to be unable to see

²⁴⁰Wolf, "Leisure-Time Reading Behaviors," 68.

²⁴¹Lovejoy, "History and Standards," 7.

well enough to read a conventional print book or to hold a book and turn pages.²⁴²

User studies conducted by the National Library Service for the Blind and Physically Handicapped confirm the large percentage of patrons who are elderly.

The average age of this special population is 56 years old. Half of the population is above 61 years of age, 25% is under age 40, and 25% is above 75. For the U.S. population as a whole, half of the population is above 27 years and only 25% is above 50 years of age.

Sixteen percent of the population with print limitations suffered congenital (age 0-1) reading limitations, three percent observed onset during the ages of 1-5, 12% experienced onset between the ages of 6-16 years, 15% between the ages of 17-44, 26% developed limitations between the ages of 45 and 64, and 27% experienced onset after age 65.²⁴³

The formats of materials provided (braille, Talking Books on recordings and cassette, and, in many cases, large print) address the needs of those with more severe impairments. Further, the method of service delivery, postal delivery as well as walk-in, addresses the issue of trans-

²⁴²Karen Renninger and Thomas J. Martin, "The NLS Network," chap. in That All May Read: Library Service to Blind and Physically Handicapped People, (Washington, D.C.: National Library Service for the Blind and Physically Handicapped, Library of Congress), 279.

²⁴³Marvin Berkowitz and others, Reading with Print Limitations, Executive Summary, vol. 1, A Survey to Determine the Extent of the Eligible User Population Not Currently Being Served or Not Aware of the Programs of the Library of Congress National Library Service for the Blind and Physically Handicapped, (New York: National Library Service for the Blind and Physically Handicapped and the American Foundation for the Blind, 1979), 16.

portation, and circumvents the difficulties such patrons might otherwise have in obtaining materials.²⁴⁴

Auditory impairments

Hearing impairments may cause subtle losses in the ability of older adults to maintain functionality. Permanent hearing losses may begin by the age of forty. In people over sixty-five, it is thirteen times more likely that a person will wear a hearing aid than will a younger person.²⁴⁵

Common manifestations of hearing loss are detailed by Pastalan.

There was an inability to hear conversation clearly with background noise such as noise from appliances and air conditioning units, or when people congregate together and talk as they do at parties, theaters, or lecture rooms.

Parts of words in a conversation are frequently unintelligible. This apparently occurs when a part of the word sound goes above the 2,000-cycle frequency. Thus, it is not only a matter of loudness but even if the sound is loud enough part of the frequency can be filtered out if the frequency is high enough.

It was also difficult to locate and identify sounds. For example, noises from down the hall sounded much like noises only a few feet away.

Some combinations of carpeting, acoustical ceiling, and draperies absorb too much sound and make functional hearing even more problematic.²⁴⁶

²⁴⁴Renninger and Martin, "The NLS Network," 280.

²⁴⁵Koncelik, "Human Factors," 109.

²⁴⁶Pastalan, "Sensory Changes," 122-123.

Mobility Impairments

Many older individuals suffer limited mobility to some extent from some chronic health condition. "Of individuals 65 years of age and older living outside institutions, 85 percent report at least one chronic disease, and about 50 percent report some limitation of normal activity related to chronic health conditions."²⁴⁷ Heart disease, cancer, and cerebrovascular disease (mainly strokes), are currently the major causes of death in late life.²⁴⁸ Arthritis, particularly osteoarthritis, is another chronic condition that may occur with age.

Use of resources may be limited by the combination of mobility-limiting conditions and the presence of architectural barriers. "To someone over 75, stairs and ramps of any distance, present problems of cardiovascular fatigue."²⁴⁹ Assuming that an individual can still drive, the distance one has to walk from the parking area to a site where information sources can be obtained may also be inhibiting.

Income

Income may limit access to transportation or reading materials. Respondents in Rebottini's study reported that being on a fixed income was a matter of concern in these

²⁴⁷Shanas and Maddox, "Utilization of Care," 708.

²⁴⁸Ibid.

²⁴⁹Koncelik, "Human Factors," 109.

areas. One couple reported that a lack of finances prevented them from having their car repaired. Four other respondents alternated purchasing the newspaper, and shared it with the others.²⁵⁰

Grubb's study reported some findings related to income level and amount of time spent in reading for younger adults (25 to 64) and older adults (65 and over).

The data . . . show little relationship between reading time and income among adults twenty-five to sixty-four years of age. Conversely, reading time and income had a significant relationship among adults sixty-five years of age and over, with 16 per cent more readers [one or more hours per week spent in reading] among the older adults whose annual incomes were above \$14,000.

Among adults who received annual incomes above \$14,000, more older adults (4 per cent) spent time in reading [one or more hours per week spent in reading] than younger adults, but the difference was not significant. A significant difference did exist between the two age groups on the higher income level among adults who spent fifteen hours or more per week in reading (20 per cent more older adults were heavy readers). It was noted that on the lower income level, 13 per cent more younger adults than older adults with annual incomes below \$14,000 spent some time in reading. . . .

In general, it appears that both age and income effect reading time for adults sixty-five years of age and over, but neither age nor income have an effect on reading time for adults twenty-five to sixty-four years of age.²⁵¹

Technology and the Aging

Older adults interact no less than others with our technological society, yet we know far less about those

²⁵⁰Rebottini, "Reading Interests and Habits," 99-100.

²⁵¹Grubb, "Reading Interests and Activity," 66-68.

aspects of technology that encourage use by older adults and those that discourage use by older adults than we might for other age groups. Libraries and other information organizations are coming increasingly to rely on computer automation in many functions, yet little information exists which explains the impact of such developments on older adults.

The National Retired Teachers Association and the American Association of Retired Persons have explored older adults' attitudes toward technology and their use of various devices. This information may provide a basis for future studies with older adults.

Nationwide telephone interviews were conducted in 1981 with a sample of 750 adults forty-five years or older, with an 81 percent response rate from 608 adults.²⁵² Adults were asked two questions; one about the usage of various types of consumer electronic products which had achieved wide distribution in the last few years, such as electronic calculators, cable television, computers, video recorders, automatic bank teller machines, and video games; the second asked about the use of some electronic products in a general sense, in terms of how helpful such products would be.

²⁵²Paul A. Kerschner and Kathleen Chelsvig Hart, "The Aged User and Technology," in Communications Technology and the Elderly: Issues and Forecasts, ed. Ruth E. Dunkle, Marie R. Haug, and Marvin Rosenberg, (New York: Springer, 1984), 135.

The survey demonstrated differences in the use of the technology by age. With the exception of cable television, which was used about equally by all age groups, the most likely user of each type of technology was a person forty-five to fifty-four years of age, and the least likely user was a person sixty-five years of age or over.

The response rates for various consumer electronic products indicated that "adults were more likely to have used technologies with which they had time to become familiar." Among older adults, the following response rates occurred: calculator, 59 percent; cable television, 37 percent; computer, 27 percent; video games, 18 percent; automatic teller machines, 14 percent; and video recorders, 8 percent.²⁵³ Some differences existed based on gender: calculators, cable television, and video games were less likely to be used by elderly women than elderly men, and use was less marked among those forty-five to sixty-four.²⁵⁴

Income, education, and residence location were also related to the use of these technologies. The higher the income, the more likely it was that these products would be used, but at almost every income level, the elderly reported the least use of the devices. Similarly, although those with more education were more likely to use them, the

²⁵³Ibid., 136.

²⁵⁴Ibid., 136-137.

elderly at each educational level were least likely to use the products. Finally, although marked differences in use among urban, suburban, and small-town locations were not noted, the oldest group evidenced the least use for each type of location.²⁵⁵

Attitudes were also examined toward five types of communications technology that were not yet widely available at the time of the study. Findings indicated that their acceptance was only weakly related to age, gender, income, and education, and residence location.²⁵⁶ Ninety-three percent of the respondents reacted favorably toward a home device that would directly contact the fire department in case of fire; 91 percent thought a home device to contact authorities in case of a medical emergency would be helpful, 63 percent would like more television channels devoted to special programming, 42 percent thought a television home shopping capability would be helpful, and only 26 percent wanted to communicate directly with people on a television show.²⁵⁷

Finally, an index of attitudes toward technology was compiled. Generally, younger respondents had more positive views toward technology. Compared to 40 percent of those

²⁵⁵Ibid., 137.

²⁵⁶Ibid., 138-139.

²⁵⁷Ibid.

aged forty-five to sixty-four, only 20 percent of those sixty-five and over had a favorable attitude.²⁵⁸

. . . attitudes toward technology were affected by gender, income, education level, and residence, within and between age categories. As with use of technology, men under 65 and men and women who enjoyed higher income or education levels were more apt to view technology positively, as were younger suburban residents.²⁵⁹

Older persons who did not have positive feelings toward technology were not as likely to have used it, whereas those who did were more likely to.²⁶⁰

Congressional hearings before the House of Representatives Select Committee on Aging have also provided information on the benefits of technology for older adults. The testimony at the hearing "High Technology and Its Benefits for an Aging Population" was designed to

- (1) identify applications of technology for the benefit of older persons and mechanisms for their development;
- (2) educate Congress and the public about the various technologies that can benefit the elderly;
- (3) increase public awareness of the ways technology could facilitate daily living for older persons;
- (4) learn about the problems that could inhibit technological developments; and
- (5) determine whether market forces can adjust to the

²⁵⁸Ibid., 140.

²⁵⁹Ibid., 141.

²⁶⁰Ibid.

economic and ethical consequences of applying such technology.²⁶¹

Moody discusses the contradictions inherent for the elderly in an information society.

Lifelong learning and enhanced productivity, are now made technologically feasible in an aging society . . . Yet the system of politics and culture [sic] reinforces the obsolescence of old age and discourages older people from making effective use of the new tools for life enrichment. This contradiction stands at the center of dilemmas faced by an aging population in an information society.²⁶²

Some investigation has also been undertaken of other, more established technologies, such as records and tape recordings. Watson, controlling for education and age, found that use of records and tapes decreased sharply with age, but that there was no clear pattern for use with increasing education.²⁶³

The Importance of Location as a Factor in the Use of
Information Sources by Older Adults

Gerontological Studies

Gerontologists have developed a body of research relevant to older adults' interaction with the environment.

²⁶¹Congress, House, Select Committee on Aging, High Technology and its Benefits for an Aging Population, 98th Cong., 2d Sess., 22 May 1984, 3.

²⁶²Harry R. Moody, "Late Life Learning in the Information Society," in Education and Aging, ed. David A. Peterson, James E. Thornton, and James E. Birren (Englewood Cliffs, N.J.: Prentice-Hall, 1986), 123.

²⁶³Watson, Leisure Reading Habits, 109.

This disciplinary area, the ecology of aging, has included as "phenomena of interest,"

. . . environmental perception and cognition, environmental preferences, community and neighborhood contexts of aging, housing for the elderly, and the adaptation of individuals to demands posed by the interaction of the environmental and intrapersonal changes that accompany aging.²⁶⁴

Lawton notes that, aside from an individual's residence, perhaps the most important aspect of an older adult's living environment ". . . is the resources available . . . within an accessible distance, whether they be life-sustaining facilities such as shops, medical care and police protection, or life-enriching facilities, such as family, friends, cultural opportunities, or a senior center."²⁶⁵

Stating a general conclusion about such research succinctly, he writes, "from the fairly large body of material on resource use by the elderly, the conclusion is that the shorter the distance between a subject and a resource, the greater the likelihood that he will use it."²⁶⁶

He gives the following definition of the "resource environment" or "social space."²⁶⁷

The physical resource environment consists of all such facilities located within a physically-defined

²⁶⁴Rick J. Scheidt and Paul G. Windley, "The Ecology of Aging," in The Handbook of the Psychology of Aging, 2d ed., (New York: Van Nostrand Reinhold, 1985), 245.

²⁶⁵Lawton, "Impact of the Environment," 277.

²⁶⁶Ibid., 278.

²⁶⁷Ibid., 277.

area, such as that bounded by city limits, specific streets, or a standard radius. The functional resource environment is the aggregate of facilities that are actually used. Its physical boundaries are typically irregular and even discontinuous, but this environment decreases in density as distance from the individual's residence increases. The perceived resource environment is the individual's definition of his "neighborhood," which is a physical area presumed to be constructed of a varying mix of physical, functional, and symbolic attributes. The salient resource environment consists of the resources that are valued highly by the individual, whether because of need or affective attachment. The position of a resource in the hierarchy of salience may be conditioned by realistic limitations on access, such as distance, income, or health.²⁶⁸

Summarizing the results of several studies, the term "use-deviation" was used to describe the relationship between use of a location by a subject and the closeness of the location to the subject. "Negative use-deviation" describes "resources that tend to be located relatively close to most subjects but are used by relatively few older people."²⁶⁹ "Positive use-deviation" would describe resources that are used by older people despite being located at a greater distance. "No use-deviation" would describe resources that are located close to a subject and are also used by a subject [my interpretation]. The following use-location relationships were isolated.

1. All of the resources with positive use-deviation are of high salience to the individual, whether by need (medical care), affective ties (children, relatives) or to a small degree, attractiveness (clubs).

²⁶⁸Ibid.

²⁶⁹Ibid., 278-279.

2. Among the resources with negative use-deviations, the barber/beauty shop and restaurant are associated with strong economic barriers to use, and library use is probably filtered by sociocultural background. The negative deviation for friends is produced by the sizable numbers of isolates (people who name no friends); when one considers those who have any friends, frequency of contact is very high. . . .
3. Among the resources with no use-deviation, both percentage who use and frequency of use are roughly proportional to (a) distance from subject and (b) presumed salience to the subject--grocery shopping is the most obligatory resource and entertainment the least.
4. Three discretionary activities . . . , show relatively high use frequency among users--friends, church, clubs. Even though the proximity effect is strong with each of these three, the high salience for users potentiates use. Thus, barriers and attractions modify the general relationship between proximity and use. One might hypothesize that in some cases (library, entertainment, clubs) salience and therefore use might be increased to some degree by proximity. In others, the use might concurrently be increased by the removal of economic barriers (restaurant, barber/beauty shop, entertainment) or transportation barriers (clubs, which though used by relatively low proportions of all subjects, received relatively high frequency of use by those who do use them).²⁷⁰

Thus, physical distance, salience (or the importance of the resource to the subject), and barriers to mobility determine social space. "Some resources of particular salience, such as medical care and children become utilized by extra expenditure of energy, while those of low salience are not utilized despite easy physical access."²⁷¹

²⁷⁰Ibid., 279-280.

²⁷¹Ibid., 280.

Golant, another researcher in this area, has also investigated the extent of older adults' use of various locations outside the residence. A structured interview administered to a random sample of 400 non-institutionalized persons sixty years of age and older living in a middle-class urban community was designed to determine where the respondents usually pursued thirteen different activities: dwelling, neighborhood, community, or outside community.²⁷²

Five categories of antecedent variables had the potential for influencing the locational contexts of everyday activities. The category environmental disposition and personality contained variables relating to the older adult's preference for urban living, stimulating or novel environments, and the perception of having greater (internal) control over their environments. Individuals with these characteristics were expected to participate more frequently in activities outside their residence.²⁷³

Demographic variables included sex, race, marital status, and religion. White, Jewish, separated-divorced, and never married elderly persons were expected to have needs that could not be satisfied by people and facilities in their proximate residential environment. Males were also

²⁷²Stephen M. Golant, "Factors Influencing the Locational Context of Old People's Activities," Research on Aging 6 (December 1984): 528.

²⁷³Ibid., 531.

expected to pursue more outside activities because they believed themselves to be less physically vulnerable than females.

Variables related to socioeconomic status were expected to reveal whether better-educated older adults depended more on outside events and activities to satisfy recreational and leisure needs. Similarly, those with higher incomes might have the resources to attend, and travel to, events in settings outside their proximate environment.

Variables related to stage in life described employment and health status. Employment would lead to work outside the residential environment, and adequate health status would lead to satisfaction of needs at locations of greater distance.²⁷⁴ The category environmental constraints described the influence of crime, distance, bad weather, and unavailable transportation, which might be expected to prevent older adults from accessing destinations outside the proximate residential environment.²⁷⁵

Golant emphasized that ". . . care is needed when generalizing about the patterns of a non-institutionalized elderly population's activity patterns."²⁷⁶ His results indicated that

²⁷⁴Ibid., 532.

²⁷⁵Ibid., 532-533.

²⁷⁶Ibid., 542.

These diverse patterns were explained by several individual and environmental factors. Old people displaying larger activity spaces were white, separated-divorced, Jewish, employed, had fewer hearing difficulties, had less likely experienced a decline in their (functional) health, and had available to them more flexible means of transportation (namely, the automobiles they drove). Unpredictably, marital status (never married), socioeconomic status, environmental disposition, and personality differences did not independently influence the locational context of old people's activities. Their effects, although in the predicted direction, were insignificant after controlling for the other individual variables.

Measures of individual differences emerged as better predictors of activity space size than measures of environmental constraints. The effects of environmental constraints, although in the predicted direction, were small once the individual variables were controlled. Only transportation availability independently influenced the locational context of old people's activities.²⁷⁷

The stage in life factors of health and employment proved to have their predicted importance. However, other, unpredicted influences were also noted. Older people who continued to work " . . . [were] more likely to be locationally accessible to a host of facilities and establishments outside their proximate residential environment."²⁷⁸ Hearing difficulties, although commonly linked with old age, also emerged as a factor with unexpected linkage to the locational context of older people's lives:

It is probable, however, that old people with hearing difficulties feel more anxious and uncomfortable when they leave the familiar surroundings of their proximate residential environment. Farther from their home territory they may fear confronting a communication

²⁷⁷Ibid., 544.

²⁷⁸Ibid.

environment in which auditory cues necessary for orientation and navigation are difficult to detect. . . .²⁷⁹

Minority status, in terms of race, religion, and marital status (separated-divorced) as individual factors largely unrelated to old age also emerged as influences on environmental behavior. "Blacks living in racially segregated neighborhoods are more likely to satisfy their social and recreational needs locally," while " . . . being Jewish in a place dominated by other religious groups increases the likelihood that many personal demands will have to be met outside one's community." Similarly, domination of the proximate social situation by married couples might lead separated-divorced persons to seek social opportunities in more remote settings.²⁸⁰

The Relationship of Location to Library Use

Factors of distance and location have also been investigated in relationship to library use. Shaughnessy evaluated the direct use of central libraries in public library systems by persons living within a system's service area by investigating the usage patterns of twenty central libraries in three states: New Jersey, New York, and Pennsylvania.

²⁷⁹Ibid., 544-545.

²⁸⁰Ibid.

Data were collected by questionnaire from 10,857 users, and an additional 121 users were interviewed in depth. A number of variables, including socio-economic characteristics of users, the nature of central library use, other reasons for travel, and the type of transportation were cross-tabulated by consecutive distance intervals.²⁸¹

Shaughnessy notes that, by 1948, the idea of public library systems (strong central libraries coupled with larger units of service), was a dominant concept in library planning. Such systems could achieve two objectives: ". . . first, coordination of existing library outlets into larger units of service; second, the substantial strengthening of a designated library in each system."²⁸² Further refinement led to the recognition of two levels of service. The central library ". . . is a library designated to provide a distinctly higher level of service than is commonly available at the local library," based on an underlying assumption that users would spend more time traveling longer distances, to obtain a higher level of service.²⁸³

²⁸¹Thomas William Shaughnessy, "The Influence of Distance and Travel Time on Central Library Use," (Ph.D. diss., Rutgers University, 1970), ii.

²⁸²Ibid., 4-5.

²⁸³Ibid., 6.

That assumption, he notes, ". . . namely, that of people traveling to stronger resources, rather than resources being brought out to the people--[reversed] in a sense the principle on which the extension movement started."²⁸⁴ His study was designed to empirically test the assumption. Reviewing previous studies, many focusing on use of branch libraries, he concluded, "With few exceptions, registration and use were found to decline with increased distance."²⁸⁵

The methodology for Shaughnessy's study defined the library user as "any person fifteen years of age or older attending a central library for any reason whatsoever," and limited library use as "any use of a public library which requires personal attendance at the library. Excluded are indirect uses, or use through remote access methods, such as telephone, mail, or other electronic systems."²⁸⁶

Shaughnessy's findings partially confirmed the results of previous research. Respondents living within two miles of central libraries comprised approximately half (50.59 percent) of the sample. Slightly over three-fourths (78.89 percent) lived within five miles, and 91.80 percent could be

²⁸⁴Ibid., 7.

²⁸⁵Ibid., 28.

²⁸⁶Ibid., 31.

found within ten miles; beyond that distance, attendance fell sharply.²⁸⁷

Of particular relevance to the present study are findings on the age of library users. However, it should be remembered that Shaughnessy used 1960 census data as his baseline throughout the study. Over 50 percent of the sample was less than twenty-five years of age, and the data indicated a " . . . general, although irregular decline in library attendance per age category as age increases."²⁸⁸ There was a sharp drop at the interval ending with twenty-four years, and a slight upturn at the interval forty to fifty-nine years; then another sharp drop at the interval sixty years and over.

Individuals sixty years of age and over comprised the smallest number of users in each state: 7.5 percent in New York, 4.6 percent in New Jersey, and 5.7 percent in Pennsylvania. When age was cross-tabulated with distance intervals, no further systematic pattern emerged. Some older adults would travel more than twenty-five miles, but older adult users comprised the smallest number of users in every distance category.²⁸⁹

²⁸⁷Ibid., 66.

²⁸⁸Ibid., 128-129.

²⁸⁹Ibid., 129-130.

Slightly more women than men attended the central libraries, with use by males increasing at greater distances, closely paralleling the population distribution for each state. A general pattern of higher educational, occupational, and income levels for users emerged, but no particularly strong relationships emerged with cross-tabulation for distance intervals.²⁹⁰

Of interest also are the findings related to purpose for the trip and type of transportation used. One reason for locating central libraries in geographic or economic centers of activity was to increase potential for use. This was thought to be especially appealing to ". . . the person living at a distance who makes a weekly trip into the business district to perform a number of activities or satisfy several needs."²⁹¹ The data tend to confirm this.

While "over one-third of the responses from users in each of the three states indicated trips solely to visit the library," this was especially true when users lived closer to the library.

Conversely, respondents living at greater distances, in addition to using the library somewhat less frequently, tend to travel for several purposes such as combining library use with travel to or from work, school, shopping, and other unspecified purposes.²⁹²

²⁹⁰Ibid., 132-133, 137.

²⁹¹Ibid., 87.

²⁹²Ibid., 86-88.

Users were asked to indicate the method of transportation they actually used in traveling to the library, specifying walking (on foot), auto, public transportation, or other means (bicycle, motorcycle, or hitchhiking). Not surprisingly, auto was the most popular form, used by 73.3 percent in New York, 72.4 percent in New Jersey, and 65.1 percent in Pennsylvania. Walking was also popular, used by slightly over one-quarter of the users in each state, but only at distances of five miles or less. Public transportation and other means were used by small percentages in each state.²⁹³

Adult reading studies

Adult reading studies have also included information on the relationship between distance from the library and library use. Data from the Consumer Research Study on Reading and Book Purchasing indicated that "there is a considerable range in the distance library users must or are willing to travel to libraries. One-third of the library users live within a half mile of the library they visit; one-fourth live 4 or more miles away."²⁹⁴

Watson, in the Canadian study, asked book readers the distance to the most convenient public library, choosing

²⁹³Ibid., 91-94.

²⁹⁴Yankelovich, Skelly, and White, Consumer Research Study, 212.

from six possible responses: less than one mile, one to two miles, three to five miles, six to twenty miles, more than twenty miles, and "don't know." The results tended to support the hypothesis that people living further away from libraries tended to use them less. Of respondents who were very active users, 23 percent lived less than one mile away, and only 7 percent lived more than twenty miles away. Non-use also increased with distance. Thirty-four percent of book readers who lived less than one mile away were non-users, while 69 percent of book readers living more than twenty miles away were non-users.²⁹⁵

Users were also categorized by socioeconomic groups, by occupation, age (young--fifteen to thirty-four years and old--thirty-five years and over), and education (low--grade eleven or less, and high--grade eleven or more); then further categorized by distance from the library: those who live two miles or less from a convenient public library, and those who live three miles or more away. With the exception of students categorized as Young/High Education, there were more users living at a distance of two miles or less, and fewer at a distance of three miles or more. In all occupational categories except student, there was more use

²⁹⁵Watson, Leisure Reading Habits, 75.

by those with higher educational levels, regardless of distance.²⁹⁶

Parker and Paisley noted that "older adults tend to make less effort to seek information outside the home (e.g., go to the local library) but use available information sources (e.g. newspapers, radio, and reference books) at least as frequently as younger adults."²⁹⁷

Summary

The literature review indicated that gerontology, as an emerging discipline, has had an impact on many more established disciplines, including librarianship, information sciences, and reading. Further review revealed, however, that major efforts to understand the effect of the concept of chronological age on the structure of library and information service delivery have been lacking. Although this assessment was not exhaustive, professional interest in older adults was concentrated principally within two divisions within the American Library Association and one quasi-governmental agency, the National Commission on Library and Information Science, while in terms of research relevant to this study, a relatively few library and information science professionals made other notable contributions.

²⁹⁶Ibid., 77.

²⁹⁷Parker and Paisley, Adult Information Seeking, VII/7.

A review of relevant research studies indicated that nationally, libraries often fail to offer specialized services to older adults. Studies were reviewed which examined older adults' reading habits in the context of other life and leisure activities. Other studies provided general information on adults' reading habits and more specific information on the extent to which older adults continue to participate in reading and their use of specific outlets for information acquisition, including bookstores and libraries. Some studies focused specifically on older adults' reading habits, noting the influence of educational level and health status on patterns of information acquisition.

Other research studies provided information on the importance of broadcast channels of distribution to older adults, such as television, radio, and the Radio Reading Service. The role of transportation in the lives of older adults was also reviewed, along with the potential for library outreach services to overcome barriers to service utilization, and the importance of physical accessibility of library facilities was discussed.

The effect of the "normal" decrements of aging (the impact of homeostatic loss on general health, visual, auditory, and mobility impairments), were discussed as they might affect older adults' ability to acquire information. The roles of large print and the National Library Service

for the Blind and Physically Handicapped as compensatory strategies for visually impaired older adults were also reviewed. Finally, the possibility that income may prove a barrier to information acquisition was reviewed.

Emerging technologies, such as computers, have remained largely unexamined in terms of information acquisition by older adults, but one pertinent study was reviewed. Some information on the more established recorded technologies of disc and tape recordings was also mentioned.

Finally, the role of the location of channels of distribution as a factor in the use of information sources by older adults was examined. Relevant information from gerontological studies, library use studies, and studies of adult reading habits was reviewed. The next chapter presents a discussion of the methodology used in conducting the study.

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CHAPTER 3

COLLECTION OF DATA

This chapter explains the methodology used in conducting the study. Reasons for choosing the personal interview as the primary data collection technique are presented and the design of the interview schedule is discussed. The choice of study site, the identification of the population, the identification of participants, and the scheduling of interviews are all reviewed. In addition, the statistical package used for data analysis is described and the assumptions and limitations of the study are noted. The chapter concludes with selected demographic statistics describing the sample.

Developmental Challenges in Adulthood and Old Age

The focus for the research design was a desire to explore the changes that can occur from middle age to old age. Our society has long identified with the "youth culture," and research efforts have been focused on the developmental challenges faced by an individual from birth to young adulthood. It is incontestable that the foundation for all later development is laid during that period. However, middle age and old age are also periods of developmental change and challenges. Our understanding of development through the

life span can be enhanced by research efforts which explore the changes that occur during adulthood and old age.

Choice of Data Collection Method

Personal Interview

The disadvantages and advantages of the personal interview as a data collection method for this study were weighed in its selection. The disadvantages are that personal interviews are time consuming and hard work, and dependent on the training and consistency of the interviewer, who needs to be highly motivated.²⁹⁸ There are however, compensatory advantages:

. . . the literacy and eyesight of respondents is not an obstacle. Lack of motivation to respond is also less of a problem because the direct contact with an interviewer produces both pressure to respond and rewards for responding. Personal contact permits administration of complex tests and measurements. . . . The personal approach can be much more flexible than paper and pencil. . . . An interviewer has the opportunity to explain to the respondent any ambiguities that emerge. Furthermore, the interviewer may be able to explore a given area of the study in depth.²⁹⁹

Despite disadvantages, for this study the advantages of the personal interview favored its selection as the method of data collection.

²⁹⁸Jan D. Sinnot and others, eds., "Data Collection: Measurement Tools," chap. in Applied Research in Aging: A Guide to Methods and Resources, (Boston: Little, Brown, 1983), 71.

²⁹⁹Ibid., 71-72.

For instance, it was possible, and indeed proved to be the case, that a number of respondents might have visual problems. Cards were prepared in large print, with the possible responses to questions (response cards, which will be discussed more fully later). These proved invaluable in the administration of the interview schedule. A mailed questionnaire would not have allowed for that type of flexibility in administration. Similarly, many items of information were discussed in conversation that could be noted on the interview schedule form by the interviewer. These were cumulated in the appendices, and add explanatory value to the statistical analyses.

Design of the Interview Schedule

The literature analysis indicated that this problem would lend itself to a multivariate statistical analysis, in which several predictors were available that could account for changes in the dependent variable.

As the name implies, multivariate statistics refers to an assortment of descriptive and inferential techniques that have been developed to handle situations in which sets of variables are involved either as predictors or as measures of performance.³⁰⁰

An exploration of the literature revealed no previously developed instruments that could be utilized for this study. With that in mind, the interview schedule was designed to

³⁰⁰Richard J. Harris, A Primer of Multivariate Statistics, 2d ed. (Orlando, Fla.: Academic Press, 1985), 5.

elicit certain types of information. Consisting of two sections, the schedule was designed to compare the same types of information for the period when the respondent was forty to fifty-five years of age and the present, when the respondent was sixty-five years of age or older.

The Role of Chronological Age in Gerontological Research

Chronological time gauged by the passage of years can be a rough indicator of biological age. However, the physiological process of aging occurs at different rates in different people. Psychological research in aging can also certify that individuals of the same chronological age vary greatly from one another in their attitudes and responses in a number of areas.

Commonsensibly, this can be observed when it is noted that one individual is "old" at forty, while another is "young" at seventy. Thus, chronological age is only a very crude measure for many underlying conditions or attitudes. Gerontologists have long practiced the measurement of these underlying conditions and attitudes, which are of interest because of their association with chronological age, rather than focusing on chronological age as the explanatory variable of interest.

Choice of Age Ranges

For this study, then, the choice was made to focus on the individual from middle age (age forty to fifty-five) to

old age (age sixty-five and above). Although the choices of ages forty to fifty-five as the demarcation for middle age, and of age sixty-five as the demarcation for old age, are arbitrary, they are based on conventional practice.

The age group 65-plus is used most often . . . to represent the elderly population. While the attainment of age 65 no longer marks the point of retirement for most workers, it is the age of eligibility for full Social Security benefits and for Medicare coverage. Also, after age 65, many characteristics of the population show marked differences from younger age groups (e.g., sex composition, morbidity rates, work participation, living arrangements). Perhaps most importantly, 65 is the age traditionally used to demarcate the older population for many statistical analyses. . . . Occasionally, the age groups 60-plus or 55-plus are used as descriptors of the "older population" for certain purposes.³⁰¹

The choice was also made to explore differences among non-institutionalized individuals, who, even in advanced years, are relatively healthy, functionally independent and currently living independently in the community in retirement apartments. Among those who are functionally independent, there can be considerable variation in physical capabilities, and utilization of varying types of transportation.

Considerations in Question Design

The interview schedule employed was specifically designed for this study by the researcher with the assistance and guidance of the doctoral advisor and the committee (See

³⁰¹Senate, Special Committee on Aging, America in Transition: 1984-1985, 5.

Appendix A for a copy). Several factors were considered in constructing the instrument. Closed, or fixed-alternative questions, which limited the respondents to a choice among specific alternatives, were utilized in spite of the possibility that "the elderly respondent especially may react negatively to fixed-alternative questions because they preclude highly individualized answers."³⁰²

The advantages of fixed-alternative questions included the following:

. . . the fixed-alternative or closed question produces greater uniformity along the specific dimensions in which the investigator is interested. The investigator is assured that he or she will be able to obtain relatively complete information from the entire sample about the specific phenomena with which he or she is concerned. . . .

There is also a practical consideration related to the use of closed questions; it is considerably less expensive and time-consuming to process answers to closed rather than open questions.³⁰³

Generally, these guidelines were followed:

1. On a given topic, general questions should usually precede specific ones. . . .
2. The entire sequence of questions should follow some logical order, so that the respondent is not called upon to make abrupt transitions and so that the sequence aids the respondent in answering the question. . . .
3. Some questions are such that they might exert an important effect on all subsequent questions. . . . Such questions [on income or religion], if asked at all, should be included as late as possible in the instrument.³⁰⁴

³⁰²Sinnot, "Measurement Tools," 79.

³⁰³Ibid.

³⁰⁴Ibid., 82.

Additional pages were included for questions 23, 24, 52, and 53, in case a respondent indicated a desire to answer those questions personally, with pen or pencil. For question 57, which asked the respondent's chronological age, an alternative question, 58, was inserted in case of reluctance to state a specific age. Similarly, an extra page with question 58 was also added, in case a respondent chose to answer the question personally, with pen or pencil (See Appendix A). Finally, nominal, ordinal, interval and ratio scale data were included, so that a variety of data analysis techniques could be utilized. "The best designed studies on aging include results based on both ratio-scale and non-ratio-scale data."³⁰⁵

Hypotheses

1. As health, environmental, and economic constraints increase, there will be a decrease in use of information sources that require movement outside the residence.
2. As health, environmental, and economic constraints increase, there will be no decrease in use of information sources that are delivered to the residence.
3. Among older adults who identified pleasure as their primary purpose for reading earlier in life, health, environmental, and economic constraints will show a greater

³⁰⁵Jan D. Sinnott and others, eds., "Data Analysis," chap. in Applied Research in Aging: A Guide to Methods and Resources, (Boston: Little, Brown, 1983), 92.

effect on present use of information sources than for the group that identified information as their primary purpose for reading.

4. The higher the educational level, the less likely that there will be a difference between past and present purpose for reading.

Explanation of Terms and Form of Measurement

"Past health constraints" were measured by respondents' ratings of general health, vision, hearing, and mobility for the period of their lives from age forty to age fifty-five. (See questions 14, 15, 16, and 17 in Appendix A.)

"Past economic constraints" were based on each respondent's perception of whether the respondents "had enough money to do all of the things that I wanted to do" for the period of their life from age forty to age fifty-five. (See question 18 in Appendix A.)

"Past environmental constraints" were determined by respondents' replies to questions concerning ownership of a radio or television and access to various modes of transportation for the period of their lives from age forty to age fifty-five. (See questions 3, 6, 12 and 13 in Appendix A; question 13 was used to rate question 12.)

"Past use of information sources" was measured by examining respondents' reports of their use, for an average six-months' period of external channels of distribution such as

bookstores, used/secondhand bookstores, public, academic, and church libraries, newsstands, department stores, discount stores, grocery stores, garage sales/flea markets, and borrowing from friends and relatives. Respondents were also asked about their use of proximate channels of distribution, such as postal delivery, newspaper delivery, radio, the Radio Reading Service, television, a personal collection, a residential collection, having someone read to them, or having materials brought by friends and relatives, for the period in their lives when they were age forty to age fifty-five. (See questions 23 and 24 in Appendix A.)

"Past purpose for consulting information sources" was judged by respondents' answers to questions about their reasons for reading, for listening to the radio, and for watching television during the period of their lives from age forty to age fifty-five. (See questions 2, 4, and 7 in Appendix A.)

"Present use of information sources" was measured by respondents' answers to the same list of information sources as used to measure "past use of information sources," except that the frame of reference for the questions was the past six months of the present period of the respondent's life (age sixty-five and over). (See questions 52 and 53 in Appendix A.)

"Present purpose for consulting information sources" was determined by asking the same questions as for "past

purpose." The frame of reference, however, was the past six months of the respondent's life. (See questions 26, 29, and 33 in Appendix A.)

In a similar manner, respondents were questioned about "present health constraints," "present economic constraints," and "present environmental constraints" and were asked to use the past six months as a frame of reference for answering. (See questions 40, 41, 42, and 43 for present health constraints, questions 44, 45, and 46 for present economic constraints, and questions 27, 31, 38 and 39--question 39 was used to rate question 38--for present environmental constraints in Appendix A.)

"Educational level" was determined by asking the respondents how many years of formal education they had completed and computing the total. Since adults sixty-five years of age would have completed high school nearly fifty years ago, those who completed requirements for a high school diploma and received one in less than twelve years, (or an equivalent G.E.D.) had their responses recorded as the equivalent of twelve years of formal education. (See question 56 in Appendix A.)

The Pre-test

After the interview schedule was approved by the Institutional Review Board for the Protection of Human Subjects in Research, as required by the University of North Texas,

pre-test interviews were conducted from February 13, 1987 to April 9, 1987. The interview schedule was pre-tested with seven older adults sixty-five years of age and over.

Two questions, items 2 and 26, required modification. The initial phrasing, "Did (Do) you read mostly for information?," elicited responses indicating that participants interpreted this to mean that they read mostly nonfiction materials. The emphasis had to be clarified to the intended meaning--of regarding reading only as a necessity--rather than as a pleasurable activity. An interpretative phrase was added so that the question would be identically phrased at each administration.

Further clarification was sometimes needed on the questions on the purpose for watching television and listening to the radio for past and present (4, 7, 29 and 33). Respondents sometimes did not want to choose only one purpose for watching television or listening to the radio. In such instances, it was necessary to indicate that the interviewer understood that there could be more than one purpose for utilizing these sources, but that the nature of the study required that the purpose most important to the participant be chosen.

The questions on the amount of time spent daily listening to the radio for past and present (8 and 34) also needed modification. For the past time period, respondents could often state a specific amount of time each day. For

the present time period (ages 65 and over), however, respondents sometimes said that they listened so rarely (and perhaps not daily) that they preferred not to state a specific amount of time. However, they would answer the phrase on question 34, "Do you listen to the radio less than 15 minutes a day?", affirmatively. This indicated some use, rather than the alternative, which would have included these responses in the category of non-listeners. To achieve consistency, a similar phrase "Did you listen to the radio less than 15 minutes a day?" was also included on question 8. Using SPSSPC+ V2.0, these answers could be computed along with the other responses for questions 8 and 34.³⁰⁶

The responses in items 23, 24, 52, and 53 were randomized, so that participants would not be unduly influenced in selection by the order of presentation. For the first twenty copies of the interview schedule, the researcher selected the order of presentation. Subsequently, the responses for items 23, 24, 52, and 53 were written on lined paper. Each response was cut from the others. The responses were drawn one at a time, until all had been drawn. The responses were recorded in the order drawn. The process was repeated four times, so that each

³⁰⁶Marija J. Norusis, "Data Transformations," chap. in SPSSPC+ V2.0 Base Manual for the IBM PC/XT/AT and PS/2. Chicago: SPSS, 1988, B-26.

set of twenty interview schedules would present a new order of selection.

Before beginning the interview, it was also found to be helpful to ask residents to recall where they lived and what their general pattern of activities was during the period when they were ages forty to fifty-five. This was found to facilitate recall for that period and allowed the interviewer and respondent to become acquainted.

Other "scripts" already incorporated into the text of the schedule were found to be satisfactory, as was the length of the interview schedule. The administration usually took from one to one-and one-half hours, depending upon time spent in conversation. Conversations often elicited pertinent information, and notes were made on the back of the form according to the time period appropriate for the comments (if comments pertained to the past period, they were noted for ages 40-55; if comments pertained to the present, they were noted for ages 65 and over).

One additional procedure, suggested by the doctoral advisor, was incorporated and proved extremely helpful. A response card was prepared for each question. Bright yellow artist's board, with a matte finish, was cut into cards measuring 7" X 9", and the rough edges were covered with yellow tape. Black transfer letters, in Helvetica Medium twenty-four-point type were used to print the responses for each question. The number of each item was lettered on the

back of each response card. As the researcher asked each question, the corresponding response card was handed to the participant.

The cards allowed the participants to review the responses before selecting their answers, and prevented several repetitions by the researcher in the case of hearing difficulties. The twenty-four-point Helvetica Medium sans serif lettering proved helpful for those with visual difficulties, such as cataracts. The response cards also facilitated the administration of the interview schedule, allowing completion of the schedule within the one to one-and-one-half hour time frame.

Choice of Study Site

The study site chosen was Denton, Texas. Denton has several advantages as a study site. As a growing community in a Sunbelt state with a large percentage of older adults, it offers a variety of local resources to its older population. In addition, its proximity to the Dallas-Fort Worth area offers access to many additional resources.

The Community

Texas is one of the eight states that have the largest numbers of older adults (fig. 5).

In 1983, almost half the elderly were living in eight states: California, New York, Florida, Pennsylvania, Texas, Illinois, Ohio, and Michigan

Counties with a high percentage of elderly are distributed all across the country . . . Over 50 percent of these counties especially in the nation's

heartland, are agricultural areas where the older population has stayed on while the younger generation has moved out . . . Other areas with an exceptionally high proportion of older persons are those to which the older population has relocated in retirement, such as Florida, the Ozark plateau in Arkansas, and the Texas hill country.³⁰⁷

The city of Denton is the county seat of Denton County, Texas, and forms the northern vertex of a triangle with Fort Worth at the southwest, down Interstate 35 West, and Dallas at the southeast, down Interstate 35 East, approximately 30 miles at the remaining vertices.

Denton and Denton County have experienced considerable population growth in the last eight years, and growth is expected to continue. In 1980, Denton had a population of 48,063; for 1990, the projection is 72,900, and for the year 2000, 98,000.³⁰⁸ Those 65-84 years of age totaled 4,851 or approximately 8 percent, of the total of 63,000 in 1987.³⁰⁹ Denton County's population is expected to reach 267,280 by 1990, with 14,158 persons 65 years of age and over. By the year 2000, the total should increase to 494,610, with 23,442 persons 65 years of age and over.³¹⁰

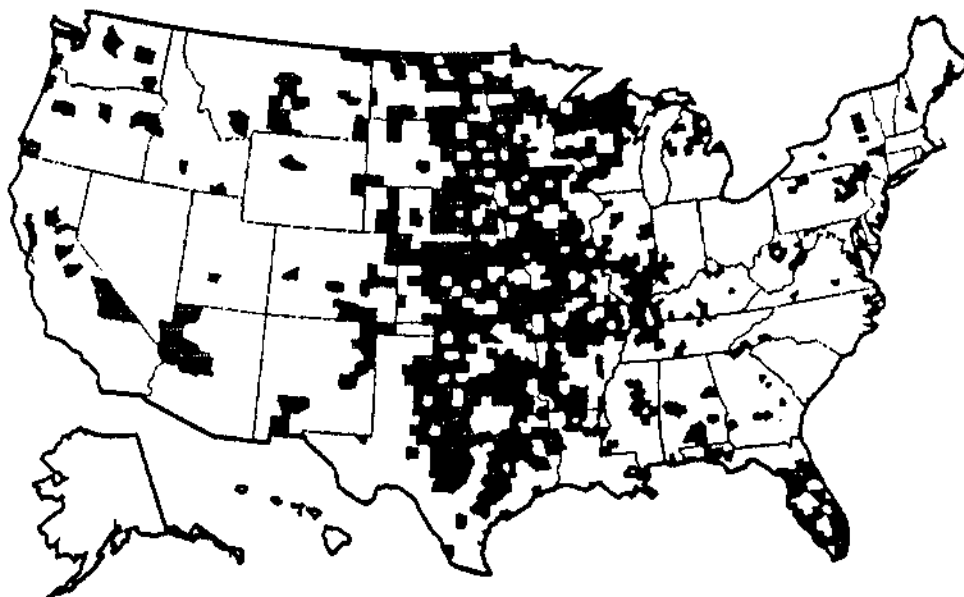
³⁰⁷Senate, Special Committee on Aging, America in Transition, 1984-85, 25, 27-28.

³⁰⁸City of Denton, Planning and Development Department, Land Use Analysis 2010, ([Denton, Tex.], March 1986), 32.

³⁰⁹City of Denton, 1988 Basic Facts About City of Denton ([Denton, Tex.: Planning Department, 1988]).

³¹⁰Texas Department of Health, State Health Planning and Resource Development, Population Data System: Projected Population ([Austin, Tex.: n.p., 1982]), 445, 655.

Percentage of Counties with 15 Percent or More
65 and Over in 1980



Percentage ■ 15 to 20 and over

Fig. 5--Source: Adapted from U.S. Bureau of the Census, Decennial Census of the Population, 1980, prepared by Michael Callahan, U.S. Senate Computer Center, in Aging America: Trends and Projections--1985-86 Edition, prepared by the U.S. Senate Special Committee on Aging in conjunction with the American Association of Retired Persons, the Federal Council on the Aging, and the Administration on Aging, Washington, D.C: U. S. Department of Health and Human Services, [1986], 34.

Overall, the complexion of Denton is changing from that of a small-town county seat of a largely rural county, to a that of a small city with convenient access to the resources of a much larger urban area.

Information Resources for Adults

All adults, including older adults in Denton and Denton County have a variety of resources and services available to them. Some resources and services are available to all adult residents, while others are specifically for use by older adults.

Channels of distribution for print

Emily Fowler Public Library, the local public library, is a department of the City of Denton and serves the county on a contractual basis. Offering children's, young adult, and adult collections, it also has a large print collection; a media collection, which includes records, audio cassettes, and video cassettes; and a Texana collection. It is located close to the downtown area and had no branches or delivery service at the time the interviews were conducted, although a bookmobile was available much earlier in the library's history.³¹¹

³¹¹City of Denton, Denton Library Board, Policies of the Emily Fowler Public Library, (Denton, Tex.: The Library Board, 1976), 1-4.

Denton is also home to two institutions of higher education. The University of North Texas (the name was recently changed from North Texas State University) had a spring 1988 enrollment of 22,378.³¹² The A.M. Willis, Jr. Library is housed in three locations on the campus: the main library, the Science and Technology Library in the Information Sciences Building, and the Media Library in the General Academic Building. Older adults, if residents of Denton County, current members of the Friends of the Library, or retired faculty or librarians, may use library materials within library buildings, or may check out materials with a courtesy card.³¹³ In addition to the library, there is also a campus bookstore.

Texas Woman's University had an enrollment of 8,192 for the spring 1988 semester.³¹⁴ The campus is home to the Mary Evelyn Blagg Huey Library and the Library Science Library in Stoddard Hall. Similarly, older adult residents of Denton are able to use library resources within the

³¹²Linda Nygren, Assistant Registrar, University of North Texas, interview by author, Denton, Texas, 26 July 1988.

³¹³North Texas State University Libraries, Policy and Procedure Manual, #2, #4, ([Denton, Tex.: The Library, August 28. 1986 rev.).

³¹⁴Debbie McCarter, Administrative Assistant, Texas Woman's University Registrar, interview by author, Denton, Texas, 26 July 1988.

library or may check out materials with a courtesy card.³¹⁵

A campus bookstore is also available.

A number of retail outlets also exist in Denton.

Waldenbooks and B. Dalton Bookseller, two large national bookstore chains, have outlets in the Golden Triangle Mall, and Dillard's, a nationally known department store with an outlet in the mall, has a large book section. Offering books and magazines along with other merchandise, Target and Wal-Mart are located around the circumference of the mall area, and K-Mart, another nationally known discount retailer, is located across town. Voertman's, another local textbook outlet and bookstore, is located on the circumference of the University of North Texas campus, and two used bookstores, S & S Book Store and Recycled Books and Records, are also available. Martus Christian Books and The Comic Strip, two specialty retailers, are located in Denton. Fultz News Agency, a newsstand, offering paperbacks, newspapers, magazines and selected hardback books, was in business at the time of the study and was located downtown in the central business district. Finally, Kroger's, Winn-Dixie, Piggly Wiggly, and Skagg's Alpha Beta, grocery chains

³¹⁵James W. Galloway to Mary Jane Barnett, "TWU Library Circulation Policy for the Elderly," 15 August 1988, Denton, Texas.

with paperback, magazine, and some hardback selections, all have stores within the Denton city limits.³¹⁶

The local newspaper, the Denton Record-Chronicle is available daily, Monday through Friday and Sunday, through local delivery, as are the Dallas Morning News, the Dallas Times Herald, and the Fort Worth Star-Telegram, which are available seven days a week. Residential postal delivery is also available, and mail may also be picked up at the local post office. The U.S. Postal Service has a central location downtown with post-office boxes available for rental, and four sub-stations; only three of the sub-stations, however, have post-office boxes available for rental where mail may be picked up.

Channels of distribution for broadcasting

Denton is within the reception area for ABC (WFAA-Channel 8), CBS (Channel 4-KDFW), and NBC (KXAS-Channel 5) affiliates in the Dallas-Fort Worth metroplex, as well as six independent stations (Channels 11, 21, 27, 33, 39, and 58) and the Dallas public broadcasting affiliate, KERA (Channel 13).³¹⁷ Recently, Denton became the city of license

³¹⁶GTE Southwest, The Everything Pages: Denton, Argyle-Bartonville, Justin-Pilot Point-Tioga, (n.p.: GTE Directories Sales Corp., 1988), 69, 80, 86, 91, 103, 105, 110, 121, 123, 126, 130, 134, 139, 142 (white pages).

³¹⁷"TV Magazine," The Dallas Morning News, 31 July--6 August, 1988, 10.

for another public broadcasting affiliate, KDTN, which was not in operation at the time of the study.³¹⁸

Sammons Communications provides cable service to the city, which adds ESPN, CBN, USA, WGN--(Chicago), CNN (Headline News), WTBS--(Atlanta), CVN, CNN--(Cable News Network), FNN--(Financial News Network), Univision, and C-SPAN, as well as a channel for weather, one channel each for Texas Woman's University and the University of North Texas, and a channel for local access programming in the basic cable package. Optional channels include Lifetime, The Nashville Network, Nickleodeon/Arts & Entertainment, and MTV. Optional premium channels include HBO, Cinemax, the Disney Channel, Home Sports Entertainment, and Showtime.³¹⁹

Denton is within the reception area of the Dallas-Fort Worth metroplex for radio programming as well. Nineteen AM stations, and 29 FM stations, including KERA, the National Public Radio affiliate, are available.³²⁰ In addition, NTRB, a Radio Reading Service affiliate, broadcasts from Dallas and can be received in Denton.³²¹

³¹⁸Stella Winsett, "KDTN Channel 2 Set to Sign On," Denton Record Chronicle, 1 September 1988, 1A.

³¹⁹Sammons Communications, ["Channel Listing and Rates"], n.p., n.d.

³²⁰"TV Magazine," 6.

³²¹NTRB: North Texas Radio Reading Service (Dallas, Tex.: North Texas Radio Reading Service, n.d.).

Locally, KDNT, an AM station, has a country music format, and also provides the most reliable weather information for the immediate vicinity in case of severe weather forecasts. KNTU, the University of North Texas FM station, also broadcasts locally.³²²

Transportation is available within the city through the Denton Taxi Service, and outside the city by bus service through Greyhound Trailways Bus Line. The Dallas-Fort Worth International Airport located several miles away, provides commercial airline flights, and the Denton Municipal Airport is available locally.³²³

Services for Older Adults

SPAN, the Service Program for Aging Needs, formed in 1974, ". . . is a private, non-profit agency designed to help older citizens in Denton County remain independent and as fully active in the community as they choose."³²⁴ SPAN offers transportation by both regular and wheelchair-accessible van to an individual's choice of location, and coordinates a hot lunch program at seven senior center sites

³²²"TV Magazine," 6.

³²³GTE Southwest, The Everything Pages, 85, 95.

³²⁴SPAN: A Bridge between the Older Citizen and the Community (Denton, Tex.: SPAN, n.d.).

in Denton County, along with Meals-on-Wheels to individuals at home.³²⁵

The Denton Senior Center, which had its grand opening in October 1978, is administered by the city's Parks and Recreation Department and provides a variety of activities for older adults. It also serves as a site for Meals-on-Wheels. Adults fifty-five years of age and over and spouses of adults fifty-five years of age and over are eligible to attend. Attendance averages 105 to 120 persons daily.

Besides many scheduled activities and programs, such as dances, table games, bridge, and blood pressure screenings, participants may use the reading collection in the "Living Room." Community sponsors provide subscriptions to popular magazines such as Better Homes and Gardens, Harper's, 50-Plus, Newsweek, Travel and Leisure, Good Housekeeping, and Texas Highways, among others. The Advisory Board provides a subscription to the Dallas Morning News, and a subscription to the Denton Record Chronicle is also donated. Approximately 50 volumes of Reader's Digest Condensed Books are also available, as is the Texas Almanac 1988-89 and an Edualite Model RL VSI Masterlens System magnifier.³²⁶

³²⁵Ibid.

³²⁶Diana Perez, Senior Center Supervisor, interview by author, Denton, Texas, 26 July 1988.

Seating and a courtesy telephone for local calls are available adjacent to the reading collection.

Sites for the Study

Denton has five retirement residences for older adults: Fairhaven, Heritage Oaks, The Vintage, Denton Good Samaritan Village, and Lake Forest Good Samaritan Village. All provide retirement housing in the form of apartments, duplexes, or fourplexes. The Vintage, Denton Good Samaritan Village, and Lake Forest Good Samaritan Village also have skilled nursing care facilities.

Personal knowledge of the residences was used in selection. Fairhaven, Heritage Oaks, and Denton Good Samaritan Village were chosen as sites for this study. Although one residence has a skilled nursing care facility, residences were deliberately selected for the variety of their arrangements--apartments, duplexes and fourplexes. Since a variable of interest in questions 23 and 52 was use of a residential book collection, the presence of an established residential book collection at each residence influenced the selection of these sites for the study. Further descriptions of each residential setting are in Appendix B.

Identification of the Population

The population consisted of 362 persons sixty-five years of age or older, living within three retirement

residences in the city of Denton in Denton County, Texas. The population were ambulatory, well elderly, capable of maintaining themselves independently.

Identification of the Sample

After the pre-test interviews were completed and all necessary modifications were made to the interview schedule, scheduling of interviews began. Concurrently with administration of the pre-test, the following steps were taken.

1. The researcher, either in person or by mail, contacted each administrator and explained the purpose of the study and procedures to be used. After the administrator's consent was obtained, the researcher requested the current directory for the residence.

2. Each administrator was requested to delete names of residents who did not fit the profile for participation because of age (too young) or the presence of circumstances, such as serious health problems, that might make it difficult to participate in an interview. Of the total of 362 residents from all three sites, 296 were available for participation and 76 were deemed not available for participation.

3. The remaining names from each directory, totaling 296, were entered into Wordperfect 4.2., a word processing program. Names were entered beginning with Fairhaven, then Heritage Oaks, and, finally, Denton Good Samaritan Village.

4. Using Wordperfect 4.2, names were integrated into a form letter (see Appendix G), and mailing labels were printed.

Scheduling Interviews

The following steps were observed in mailing letters and scheduling interviews. Interviews were conducted from May 12, 1987 to January 16, 1988.

1. Following the alphabetical order of the directories, letters were mailed approximately thirty at a time, so that follow-up telephone calls could be made no later than two to three days after the letters were received. The interviews were begun at Fairhaven, followed by Heritage Oaks, then by Denton Good Samaritan Village.

2. Follow-up telephone calls, mentioned in the letter, were placed in alphabetical order, following the directories, to request participation in the study and schedule a time for administration of the interview schedule.

3. At the conclusion of the follow-up telephone call, if the researcher received a positive response and had scheduled an appointment, the participant was given the researcher's home telephone number in case of need for change or cancellation.

4. Individuals who responded negatively were noted, and were given an additional telephone call to again request participation. In some cases, this elicited a positive

response. Individuals who refused the second time were not contacted again. Individuals who could not be contacted on the first call were called until an initial response could be obtained.

Two-hundred-fifty-eight letters were sent to achieve 101 responses. All of the potential participants at Fairhaven and Heritage Oaks were contacted, but it was not necessary to contact all of the potential participants at Denton Good Samaritan Village in order to meet the sample size of 101.

Other Procedures for Facilitating the Request for Participation

Prior to mailing the first group of letters to Fairhaven residents, the researcher was invited to an evening meal by the administrator, introduced by the administrator, and allowed to address the residents on the purpose of the study, the amount of time required for participation, and other matters. The administrator at Heritage Oaks provided a similar opportunity prior to the first mailing there, allowing the researcher to address a meeting of the Tenant's Association. Circumstances did not allow for a similar opportunity at Denton Good Samaritan Village. At Fairhaven and Heritage Oaks, this procedure provided for an element of familiarity with the researcher when the follow-up telephone call was placed.

Follow-up Telephone Calls

The procedure for the follow-up telephone calls has already been discussed. Despite the assurances presented in the letter, it was often necessary to provide assurance in the telephone call of the administrator's knowledge of, and permission for, the study. One question often asked was how the names were initially obtained. Individuals were encouraged to check with their administrator to verify the legitimacy of the study.

Some residents responded positively without further explanation, and were eager to participate in the study, most often because they were interested in the topic or were willing to help someone pursuing an educational research project. More often, a review of the material in the letter was provided. Common questions were about the length of time required for participation, confidentiality, and the purpose for the study. Some residents were concerned that they "did not read enough," but after assurances that the interview schedule also included items about television and radio usage, agreed to participate.

Some residents indicated that they could not presently participate because of various circumstances, and requested another telephone call at a specified date. Certain holiday periods (July 4th, Labor Day, Thanksgiving, Christmas) prompted a large number of these responses.

Reasons given for negative responses were often personal illness, the illness of a spouse, or travel for an extended period of time. In some cases, residents responded with thoughtful, personal letters on the topics mentioned, regretting that they could not participate in the interview.

Administration of the Interview Schedule

Use of the Consent Form

After initial introductions were concluded at the beginning of the interview, the informed consent form (see Appendix H) was presented, with an explanation of its purpose, and the assurance that the individual's name would not be connected with the numbered interview schedule. In a few instances, the respondent requested that the form be read by the researcher because of poor eyesight. No respondent needed witnesses.

The researcher personally conducted all interviews. No one requested the option of reading and filling out the form for themselves, nor were the optional pages for questions 23, 24, 52, 53 and 58 needed. In fact, no one objected to stating their chronological age at all. One respondent would answer the questions about radio and television ownership, and the purpose for watching and listening, but refused to estimate the number of hours daily spent watching television or listening to the radio, which constituted missing values.

The researcher read the questions, presented the response cards, and recorded the answers. As previously mentioned, the response cards proved invaluable in cases of poor eyesight, provided a means of compensation for mild hearing impairment, and decreased the need for verbal repetition of possible answers.

Data Analysis

Data analysis was accomplished utilizing SPSSPC+ V.2, the personal computer version of the mainframe statistical analysis package.³²⁷ Regression analysis, treating ordinal as interval data, was chosen as one method of analysis, because the direction of the relationship to be explored was expected to be one of decline, of a linear nature.³²⁸

Since the analysis would be performed by adding variables and then taking the differences between total scores for sets of variables, the predictors to be used in regression analysis, composite variables numbering three, for Hypothesis 1 and Hypothesis 2, were found to fall within the range for an allowable number of predictor variables.³²⁹ Other statistical techniques, including frequency analyses,

³²⁷Ibid.

³²⁸Marija J. Norusis, "Multiple Regression: Procedure REGRESSION," chap. in SPSSPC+ V2.0 Base Manual for the IBM PC/XT/AT and PS/2, (Chicago: SPSS, 1988).

³²⁹Harris, A Primer of Multivariate Statistics, 63-65.

t-tests, and one-way analysis of variance were also utilized and could be performed by SPSSPC+ V.2.

Assumptions

The basic assumption underlying the proposed study is that adults remain intellectually active after age 65 and should be able to utilize information sources from available channels of distribution as long as they remain intellectually active. If barriers to access are found to exist and can be removed, they should be removed so that the older adult can function intellectually at the highest level possible.

In terms of the survey methodology, it is assumed that the responses of the older adults surveyed will accurately reflect their actual life experiences. An additional assumption is that the variables selected will provide accurate measurements of the concepts being investigated.

Limitations

The limitations of the study are related to the sample selection process. Generalizability will be affected since the sample population is a small, somewhat homogenous group, and because the residential settings selected exclude all those adults sixty-five years of age and over living in their own homes, in other apartments in the community, or in other types of arrangements. The results, however, should be generalizable in some respects to similar types of

residential settings which are common throughout the United States.

The sample is limited to three sites in one geographical area: the city of Denton, in Denton County, Texas. Replications of the study in other geographic areas will be necessary in order adequately to verify the conclusions.

An additional limitation is related to the nature of the research design. A longitudinal design would have been ideal but could not be obtained for this study. Limitations on funding and the fact that such studies require ten or more years cause such a design to be beyond the resources of the researcher. The survey design chosen, however, can prove satisfactory if appropriate caution is exercised in interpreting the results.

Description of the Sample

The following statistical frequency analyses of the demographic variables provide a description of the sample.

Residence Location

Each of the three residence locations was well-represented in the sample. Nearly one-quarter were from Fairhaven, close to one-half were from Heritage Oaks, and over one-quarter were from Denton Good Samaritan Village. Females considerably out-numbered males, as was expected, following the general pattern of higher mortality of males

among older adults.³³⁰ (Table 1)

The sample was almost racially homogeneous, as was typical of the residences, although more individuals belonging to racial minorities live at Heritage Oaks. One Hispanic lady at Heritage Oaks responded to the request for participation. Minorities are seriously underrepresented in the sample, but as a generality for older adults, this is also true of the national population as a whole.³³¹

Table 1.-- Distribution of the sample by residence location and sex

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
FAIRHAVEN	24	23.8	4	4.0	20	19.8
HERITAGE OAKS	43	42.6	1	1.0	42	41.6
GOOD SAMARITAN	34	33.7	11	10.9	23	22.8
TOTAL	101	100.0	16	15.8	85	84.2

Marital Status

Approximately 20 percent of the sample were married and had a spouse still living, while the remainder were single. At least one of the married respondents had a spouse in a nursing home, while at least two of the single respondents

³³⁰Senate, Special Committee on Aging, America in Transition 1984-85, 16-17.

³³¹Senate, Special Committee on Aging, America in Transition 1984-85, 15-16.

had a roommate of the same sex. Close to 70 percent of the respondents were widowed and the majority (61.4 percent), were female. In contrast, approximately half of the men were still married (7.9 percent). This pattern corresponds to trends in the general population.³³² (Table 2)

Table 2.--Analysis of the sample by marital status and sex

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
MARRIED	19	18.8	8	7.9	11	10.9
NEVER MARRIED	4	4.0	0	0.0	4	4.0
WIDOWED	68	67.3	6	5.9	62	61.4
DIVORCED	8	7.9	1	1.0	7	6.9
SEPARATED	2	2.0	1	1.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2

Age Distribution

All age categories were represented in the sample, and the sample was almost evenly divided between those 65-79 (N=45) and those 80-94 (N=56). The majority (N=77) were between the ages of 75 and 89.

Further analysis of the sample by age according to sex and residence location presented no clear pattern, other than to note an absence of males in the age category 70-74, regardless of residence location, and an absence of females in that category at Denton Good Samaritan Village. There

³³²Ibid., 16-17, 85-87.

Table 3.--Age distribution of the sample by sex and residence location

		RESIDENCE LOCATION											
		FAIRHAVEN				HERITAGE OAKS				GOOD SAMARITAN			
TOTAL		MALE		FEMALE		MALE		FEMALE		MALE		FEMALE	
N	%	N	%	N	%	N	%	N	%	N	%	N	%
65-69	8	0	0.0	1	1.0	0	0.0	3	3.0	2	2.0	2	2.0
70-74	10	0	0.0	1	1.0	0	0.0	9	8.9	0	0.0	0	0.0
75-79	27	2	2.0	2	2.0	0	0.0	14	13.9	1	1.0	8	7.9
80-84	30	2	2.0	8	7.9	1	1.0	10	9.9	4	4.0	5	5.0
85-89	20	0	0.0	5	5.0	0	0.0	5	5.0	3	3.0	7	6.9
90-94	6	0	0.0	3	3.0	0	0.0	1	1.0	1	1.0	1	1.0
TOTAL	101	4	4.0	20	19.8	1	1.0	42	41.6	11	10.9	23	22.8

tended to be fewer males represented in the sample at Fairhaven and Heritage Oaks, with none in the age categories 65-69, 70-74, 85-89, and 90-94 at those residences. In addition, there were no males in the age category 75-79 at Heritage Oaks. This corresponds to trends in the population as a whole, since the proportion of the older population that is "oldest" is growing.³³³ (Table 3)

Educational Level

The educational level of the sample was generally high. Slightly over 10 percent had completed 8 years or less of formal education, approximately 30 percent had completed 9 to 12 years, approximately 40 percent had completed 12.5 to 16 years, and approximately 20 percent had completed 16.5 to 21 years of formal education. (Table 4)

It should be remembered that those 80-94 (N=56) would have completed their primary and secondary education prior to World War II. It was more common then for fewer than twelve years of education to be required for completion of high school. For many, completion of eight years of education was an achievement of significance, comparable to the completion of high school today. A more precise analysis (see table 5) reveals that the majority (N=88) had completed some education at the high school level, and most of those (N=81) had completed 4 years of high school. Over half

³³³Ibid., 13-14.

Table 4.--Educational level of the sample by sex

	EDUCATIONAL LEVEL					
	TOTAL <u>N</u>	0-7	8	9-12	12.5-16	16.5-21
MALE	16	1	2	3	7	3
%	15.8	1.0	2.0	3.0	6.9	3.0
FEMALE	85	3	6	27	34	15
%	84.2	3.0	5.9	26.7	33.7	14.9
TOTAL	101	4	8	30	41	18
%	100.0	4.0	7.9	29.7	40.1	17.8

(N=60) had completed some under graduate education, and nearly a one-third (N=32) had completed up to 4 years of undergraduate education. A strong minority (N=18) had completed some education at the master's level, and one had completed a doctorate, although no one had post-doctoral education.

Some had completed less than the number of years ordinarily required to receive a diploma, or complete a category of educational achievement (elementary school, junior high school, high school, undergraduate degree, master's degree, or doctoral degree). As the level of education increased, fewer respondents reported completing the requirements to graduate to the next level or receive a diploma, until at the doctoral level, only one person had completed a degree.

The educational achievement of the sample was somewhat higher than for the population as a whole. In 1982, for the

Table 5.--Number completing specific number of years of formal education at each educational level, by sex.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
ELEMENTARY SCHOOL						
.00	1	1.0	0	0.0	1	1.0
5.00	1	1.0	0	0.0	1	1.0
6.00	99	98.0	16	15.8	83	82.2
TOTAL	101	100.0	16	15.8	85	84.2
JUNIOR HIGH SCHOOL						
.00	2	2.0	0	0.0	2	2.0
1.00	2	2.0	1	1.0	1	1.0
2.00	97	96.0	15	14.9	82	81.2
TOTAL	101	100.0	16	15.8	85	84.2
HIGH SCHOOL						
.00	13	12.9	3	3.0	10	9.9
2.00	4	4.0	0	0.0	4	4.0
3.00	3	3.0	0	0.0	3	3.0
4.00	81	80.2	13	12.9	68	67.3
TOTAL	101	100.0	16	15.8	85	84.2
UNDERGRADUATE						
.00	41	40.6	6	5.9	35	34.7
.50	4	4.0	0	0.0	4	4.0
1.00	4	4.0	0	0.0	4	4.0
1.50	3	3.0	2	2.0	1	1.0
2.00	8	7.9	1	1.0	7	6.9
2.50	2	2.0	0	0.0	2	2.0
3.00	4	4.0	1	1.0	3	3.0
3.50	3	3.0	0	0.0	3	3.0
4.00	32	31.7	6	5.9	26	25.7
TOTAL	101	100.0	16	15.8	85	84.2
MASTERS						
.00	83	82.2	13	12.9	70	69.3
.50	1	1.0	0	0.0	1	1.0
1.00	7	6.9	2	2.0	5	5.0
1.50	4	4.0	0	0.0	4	4.0
2.00	5	5.0	1	1.0	4	4.0
5.00	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2

Table 5.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
DOCTORATE						
.00	100	99.0	16	15.8	84	83.2
2.00	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2
POST-DOCTORATE						
.00	101	100.0	16	15.8	85	84.2
TOTAL	101	100.0	16	15.8	85	84.2

population as a whole, 44 percent of the population 65 and over had completed high school, while for the sample, 80.2 percent had completed high school. For college, 31.7 percent of the sample had completed 4 years of undergraduate education, whereas only 10 percent of elderly whites and 4 percent of elderly blacks in the population as a whole in 1982 had achieved this level.³³⁴ (Table 5)

The influence of the two university campuses in Denton is indicated by the number of respondents completing education beyond the high school level. Many of the respondents matriculated at other educational institutions, but the residence locations in Denton are attractive because of the

³³⁴Commerce, Bureau of the Census, America in Transition: An Aging Society, 21-22.

many free or low-cost educational and cultural opportunities provided by the two universities.

Summary

This chapter discussed the methodology used in conducting the study, particularly the choice of the personal interview as the primary data collection technique, and the design of the interview schedule. The advantages of Denton, Texas as the choice of study site, the identification of the population, recruitment of participants, and scheduling of interviews were reviewed. Finally, the demographic statistics describing the sample were noted. The next chapter will provide an overview of the responses to the interview schedule.

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CHAPTER 4

STATISTICAL DESCRIPTION OF THE SAMPLE DATA

Before presenting statistical analysis related to the testing of the hypotheses of this study, it seems useful to provide the reader with a summary of responses to the relatively long interview schedule. Responses to individual and related questions give a broad picture of the information-seeking patterns of the older adults who participated in the interviews. Where appropriate, comparable results from other relevant studies will be mentioned.

Reading Habits

Reading Activity

The respondents can be categorized as readers, according to the definition of the study -- one who had read (visually or tactilely) or listened to a newspaper, magazine, or book in an average six-month period during ages 40-55, or one who had read (visually or tactilely) or listened to a newspaper, magazine, or book in the six-month period preceding administration of the interview schedule at age 65 or older. Since, because of the methodology, the participants were "self-selected," it is not surprising that a survey about reading would elicit responses from readers, as opposed to nonreaders. This is not necessarily detrimental to

the purposes of the study, since it was desirable to study changes in reading habits with age.

For the previous period in respondents' lives (ages 40-55), no one was identified as a nonreader, according to the study definition: one who had not read (visually or tactilely) or had not listened to a newspaper, magazine, or book in an average six month period during ages 40-55. Instead, the respondents were readers (N=101). The majority also indicated that they were book readers (N=88), according to the study definition. As book readers, they also indicated that they read newspapers and magazines. Only a minority (N=13) indicated that they read only newspapers or magazines during this period.

For the later period in respondents' lives (ages 65 and over), those indicating that they were nonreaders had increased (N=3). As can be seen in table 11, this is generally related to poor vision. The majority (N=98) can still be categorized as readers, according to the study definition, and as book readers (N=70), although the number reading only newspapers and magazines has increased (N=28). In terms of book reading, the number reading books in each category except "More than 25 books" decreased from the past period. However, in the category "More than 25 books," the number more than doubled, increasing from 5 to 12 for the present period. (Table 6)

Table 6.--Past and present levels of reading activity

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
DID NOT READ	0	0.0	0	0.0	0	0.0
NEWSPAPERS AND						
MAGAZINES	13	12.9	7	6.9	6	5.9
1-3 BOOKS	40	39.6	5	5.0	35	34.7
4-9 BOOKS	27	26.7	4	4.0	23	22.8
10-25 BOOKS	16	15.8	0	0.0	16	15.8
MORE THAN 25						
BOOKS	5	5.0	0	0.0	5	5.0
TOTAL	101	100.0	6	15.8	85	84.2
Age range 65+						
DO NOT READ	3	3.0	2	2.0	1	1.0
NEWSPAPERS AND						
MAGAZINES	28	27.7	8	7.9	20	19.8
1-3 BOOKS	27	26.7	4	4.0	23	22.8
4-9 BOOKS	19	18.8	1	1.0	18	17.8
10-25 BOOKS	12	11.9	0	0.0	12	11.9
MORE THAN 25						
BOOKS	12	11.9	1	1.0	11	10.9
TOTAL	101	100.0	16	15.8	85	84.2

Purpose for Reading

For the previous period in respondents' lives (ages 40-55), the overwhelming majority (N=95) identified their basic purpose for reading as being pleasure; that is, they responded affirmatively to the question "Did you usually read because you enjoyed reading?" Only a few (N=6) respondents indicated that they read for information,

responding affirmatively to the question "Did you usually read mainly for information necessary in daily life?"

For the present period (ages 65 and over), the overwhelming majority (N=94) again indicated that they regarded reading as a pleasurable activity. Only a few (N=5) respondents indicated that they read for information. Two respondents declined to indicate a purpose for reading, since they did not read in the present.

The basic pattern for the sample as a whole would be one of consistency in terms of purpose for reading. That is, there seem to be few instances of change in purpose for reading from the past period to the present. Similar results were noted in The Consumer Research Study on Reading and Book Purchasing. "A pleasure . . . orientation is the key reading motivation of book readers. . . . The pleasure orientation is strongly associated with consistently heavy reading."³³⁵ Watson, noting that his study developed a different approach to the measurement of motivation, nevertheless cited consistency as a factor. ". . . old people are twice as likely to cite habit [as a reason for leisure-time book reading] as do young people."³³⁶ (Table 7)

³³⁵Yankelovich, Skelly, and White, Consumer Research Study, 30.

³³⁶Watson, Leisure Reading Habits, 27.

Table 7.--Past and present purpose for reading

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
DID NOT READ	0	0.0	0	0.0	0	0.0
READ FOR INFORMATION	6	5.9	3	3.0	3	3.0
READ FOR PLEASURE	95	94.1	13	12.9	82	81.2
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
DO NOT READ	2	2.0	2	2.0	0	0.0
READ FOR INFORMATION	5	5.0	2	2.0	3	3.0
READ FOR PLEASURE	94	93.1	12	11.9	82	81.2
TOTAL	101	100.0	16	15.8	85	84.2

Reading Activity and Purpose for Reading

When the types of material read (newspapers, magazines, and books) were analyzed according to the purpose for reading for the previous period in respondents' lives (ages 40-55), no one was identified as a non-reader, and it can be noted that those who indicated that they read only newspapers and magazines (N=13) in the earlier period (ages 40-55), were almost evenly divided between those who read for information (N=5) and those who read for pleasure (N=8).

Only one individual responding in the "lightest" category of "Read 1-3 books" in an average six-month period during ages 40-55 indicated reading principally for infor-

mation. The remainder (N=39) responding in the "Read 1-3 books" category, and all remaining categories for the past period, indicated that reading was regarded as a pleasurable activity.

The same pattern was generally continued for the later time period (ages 65 and over). However, three respondents indicated that they "do not read," with two indicating that they never read, and one indicating that reading, if done, was for information, only out of necessity. Thus, technically, a respondent "Did not read books, newspapers or magazines," but could still choose a purpose for reading. A respondent was allowed to state that they "Did/do not read" if they read so seldom that the response seemed appropriate. Analysis of these cases (see table 11) indicated that poor vision was the cause for these responses, rather than a lack of motivation.

The number of those indicating that they read only newspapers and magazines had increased (N=28), but the purpose for reading was more likely to be pleasure (N=25) than information (N=3). Only one individual responding in the "lightest" category of "Reading 1-3 books" in the previous six-month period, indicated reading for information, with the remainder (N=26) in that category indicating that they regarded reading as a pleasurable activity.

The number reading books declined from the past period for every category, except the "heaviest" category, "Read

more than 25 books." Activity in this category more than doubled from the previous time period (from 5 to 12), with all of those reading in this category for the present period indicating that they regarded reading as a pleasurable activity. (Table 8)

Generally, this was somewhat in contrast to the results of the Consumer Research Study on Reading and Book Purchasing, which indicated that a pleasure orientation was more often associated with reading in the "heaviest" categories, and that reading declines with age.³³⁷ However, that study was based on a representative sample of the population, while the current study is not.³³⁸ The results of the current study indicate a tendency for decline in level of reading activity, but overall, the pattern was one of continuation of reading activity, and reading continued to be regarded as a pleasurable activity for both time periods.

Increase in Reading Activity with Age

While the general pattern was for the level of reading activity to decline from the past period (ages 40-55) to the present (ages 65 and over), there were quite a few exceptions to the pattern. In order to examine how frequently this pattern was represented in the sample, the past

³³⁷Yankelovich, Skelly, and White, Consumer Research Study, 33.

³³⁸Ibid., 5-6.

Table 8.--Reading activity and purpose for reading

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
DID NOT READ						
READ FOR INFORMATION	0	0.0	0	0.0	0	0.0
READ FOR PLEASURE	0	0.0	0	0.0	0	0.0
NEWSPAPERS AND MAGAZINES						
READ FOR INFORMATION	5	5.0	3	3.0	2	2.0
READ FOR PLEASURE	8	7.9	4	4.0	4	4.0
1-3 BOOKS						
READ FOR INFORMATION	1	1.0	0	0.0	1	1.0
READ FOR PLEASURE	39	38.6	5	5.0	34	33.7
4-9 BOOKS						
READ FOR INFORMATION	0	0.0	0	0.0	0	0.0
READ FOR PLEASURE	27	26.7	4	4.0	23	22.8
10-25 BOOKS						
READ FOR INFORMATION	0	0.0	0	0.0	0	0.0
READ FOR PLEASURE	16	15.8	0	0.0	16	15.8
MORE THAN 25 BOOKS						
READ FOR INFORMATION	0	0.0	0	0.0	0	0.0
READ FOR PLEASURE	5	5.0	0	0.0	5	5.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
DO NOT READ						
DO NOT READ	2	2.0	2	2.0	0	0.0
READ FOR INFORMATION	1	1.0	0	0.0	1	1.0
READ FOR PLEASURE	0	0.0	0	0.0	0	0.0

Table 8.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
NEWSPAPERS AND MAGAZINES						
READ FOR INFORMATION	3	3.0	1	1.0	2	2.0
READ FOR PLEASURE	25	24.8	7	6.9	18	17.8
1-3 BOOKS						
READ FOR INFORMATION	1	1.0	1	1.0	0	0.0
READ FOR PLEASURE	26	25.7	3	3.0	23	22.8
4-9 BOOKS						
READ FOR INFORMATION	0	0.0	0	0.0	0	0.0
READ FOR PLEASURE	19	18.8	1	1.0	18	17.8
10-25 BOOKS						
READ FOR INFORMATION	0	0.0	0	0.0	0	0.0
READ FOR PLEASURE	12	11.9	0	0.0	12	11.9
MORE THAN 25 BOOKS						
READ FOR INFORMATION	0	0.0	0	0.0	0	0.0
READ FOR PLEASURE	12	11.9	1	1.0	11	10.9
TOTAL	101	100.0	16	15.8	85	84.2

period was compared to the present. For one-quarter of the respondents (N=25), the level of reading activity increased from the past period (ages 40-55) to the present (ages 65 and over). The majority of the respondents were female (N=23); two were males.

For the majority (N=13) of the group where reading increased from the past (ages 40-55) to the present (ages 65 and over), reading had increased by an increment of one. The next largest group of respondents (N=7) had increased their reading by an increment of two. Next in number (N=5) were those for whom reading had increased by an increment of three.

For one respondent, whose reading had been in one of the "lighter" categories for the past period (ages 40-55), reading had increased by an increment of four. Interestingly, in the present period (ages 65 and over) this respondent also used and was very enthusiastic about, the National Library Service for the Blind and Physically Handicapped, rather than regular print from other channels of distribution.

This partially confirms the results of the Consumer Study on Reading and Book Purchasing, which noted that book readers may have a tendency to increase their level of reading over the years, but proves the exception to the finding of the same study that older adults tend to read less than they did when they were younger.³³⁹ Watson found that, generally, when book reading increased with age, it was in instances of those having a university education.³⁴⁰

³³⁹Ibid., 29, 50-51.

³⁴⁰Watson, Leisure Reading Habits, 24.

Personal Constraints

Health Characteristics

General Health

For the past period in respondents' lives (ages 40-55), the pattern was one of an absence of health problems; general health, as might be expected for this sample, was generally good. Only a few (N=3) respondents indicated that their health was "very poor" (N=1) or "poor" (N=2). One respondent, who indicated "very poor" general health for the past period, had suffered from a difficult-to-diagnose chronic illness during ages 40-55. Diagnosis and treatment of the illness eventually allowed the respondent to live a normal lifestyle. At the time of the interview, that respondent was over 80 years of age, and indicated that general health was "fair." The other two respondents indicating "poor" health had suffered from fatigue and severe headaches, respectively. A few (N=7) noted that their health had been "fair." The majority, in the remaining categories, indicated that their general health had been "good" (N=32) or "very good" (N=59).

For the present period (ages 65 and over), however, a general decline could be noted, although no one reported "very poor" health. In fact, the number reporting "poor" health remained at two. There were sizable increases in the "fair" (N=33) and "good" (N=44) categories, with the largest increase in the "fair" category. However, those reporting

"very good" health declined by over half (N=24). (Table 9)
 This correlates with studies of the general population where 65 percent reported their health as excellent, very good, or good, compared with 35 percent who reported their health as fair or poor.³⁴¹ (Table 9)

Table 9.-- Past and present level of general health

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
VERY POOR	1	1.0	0	0.0	1	1.0
POOR	2	2.0	0	0.0	2	2.0
FAIR	7	6.9	1	1.0	6	5.9
GOOD	32	31.7	4	4.0	28	27.7
VERY GOOD	59	58.4	11	10.9	48	47.5
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
VERY POOR	0	0.0	0	0.0	0	0.0
POOR	2	2.0	0	0.0	2	2.0
FAIR	33	32.7	3	3.0	30	29.7
GOOD	42	41.6	7	6.9	35	34.7
VERY GOOD	24	23.8	6	5.9	18	17.8
TOTAL	101	100.0	16	5.8	85	84.2

Vision

For the past period in respondents' lives (ages 40-55), the pattern was one of an absence of visual difficulties.

³⁴¹Senate, Special Committee on Aging, America in Transition 1984-85, 63.

No one reported having "a great deal of difficulty," and only a total of three respondents reported having "a little difficulty" (N=2), or "some difficulty" (N=1). The overwhelming majority of the respondents (N=98) reported being able to read newspaper print with "no difficulty."

For the present period (ages 65 and over), however, the pattern was one of general decline. A few (N=3) reported that they "cannot read." There were increases in all other categories, except "no difficulty." Several (N=8) respondents noted that they had "a great deal of difficulty" reading newspaper print. Similarly, those reporting "some difficulty" increased (N=15), as did those reporting "a little difficulty" (N=25). The number reporting that they had "no difficulty" reading newspaper print had declined by almost half (N=50). The pattern of increased visual difficulty in later life has been commonly noted.³⁴² (Table 10)

Level of visual difficulty and level of reading activity

When the level of reading activity was cross-tabulated with the level of visual difficulty in reading newspaper print for both time periods, the following results were obtained. For the previous period (ages 40-55), the majority (N=98) read newspaper print with "no difficulty," and were distributed across all categories of reading

³⁴²Shanas and Maddox, "Utilization of Care," 708.

Table 10.--Past and present level of difficulty in reading newspaper print

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
COULD NOT READ	0	0.0	0	0.0	0	0.0
GREAT DEAL OF DIFFICULTY	0	0.0	0	0.0	0	0.0
SOME DIFFICULTY	1	1.0	1	1.0	0	0.0
A LITTLE DIFFICULTY	2	2.0	0	0.0	2	2.0
NO DIFFICULTY	98	97.0	15	14.9	83	82.2
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
CANNOT READ	3	3.0	1	1.0	2	2.0
GREAT DEAL OF DIFFICULTY	8	7.9	1	1.0	7	6.9
SOME DIFFICULTY	15	14.9	1	1.0	14	13.9
A LITTLE DIFFICULTY	25	24.8	5	5.0	20	19.8
NO DIFFICULTY	50	49.5	8	7.9	42	41.6
TOTAL	101	100.0	16	15.8	85	84.2

activity. The three respondents who reported difficulty in reading newspaper print (N=3), all reported reading books at different levels of reading activity, with none reporting reading newspapers and magazines exclusively. Conversely, all those reading newspapers and magazines exclusively read newspaper print with "no difficulty."

The pattern for the later time period (ages 65 and over) is much different. Three respondents report that they "do not read" in stating their level of reading activity and state that they "cannot read" newspaper print (N=1), or read

newspaper print with "a great deal of difficulty" (N=1), or "some difficulty" (N=1). This seeming discrepancy can be explained as an artifact of the design of the interview schedule. Respondents were allowed to state that they "do not read," if they had read so seldom during the previous six months that they equated it with "not reading," and they preferred not to choose one of the reading activity categories.

All categories of reading activity, whether newspapers and magazines only, or all of the categories of book reading, had respondents who reported difficulty in reading "newspaper print" of various degrees. One respondent identified in the category "cannot read" used the alternative of the National Library Service for the Blind and Physically Handicapped, and listed one of the highest volume reading activity categories, "Read 10-25 books" for the previous six-month period. One who responded with "cannot read" and one who read with a "great deal of difficulty" read "More than 25 books" in the previous six-month period and also used the National Library Service for the Blind and Physically Handicapped as an alternative. (Table 11)

Again, this would seem to indicate that poor vision does not necessarily lead to a decline in book reading activity, especially if alternative formats are available, such as books recorded on disc or tape, and that other factors may influence the desire to read books or to read at

Table 11.--Past and present level of reading activity and level of difficulty in reading newspaper print

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NEWSPAPERS AND MAGAZINES						
COULD NOT READ	0	0.0	0	0.0	0	0.0
GREAT DEAL	0	0.0	0	0.0	0	0.0
SOME	0	0.0	0	0.0	0	0.0
A LITTLE	0	0.0	0	0.0	0	0.0
NO DIFFICULTY	13	12.9	7	6.9	6	5.9
1-3 BOOKS						
COULD NOT READ	0	0.0	0	0.0	0	0.0
GREAT DEAL	0	0.0	0	0.0	0	0.0
SOME	0	0.0	0	0.0	0	0.0
A LITTLE	1	1.0	0	0.0	1	1.0
NO DIFFICULTY	39	38.6	5	5.0	34	33.7
4-9 BOOKS						
COULD NOT READ	0	0.0	0	0.0	0	0.0
GREAT DEAL	0	0.0	0	0.0	0	0.0
SOME DIFFICULTY	1	1.0	1	1.0	0	0.0
A LITTLE	0	0.0	0	0.0	0	0.0
NO DIFFICULTY	26	25.7	3	3.0	23	22.8
10-25 BOOKS						
COULD NOT READ	0	0.0	0	0.0	0	0.0
GREAT DEAL	0	0.0	0	0.0	0	0.0
SOME	0	0.0	0	0.0	0	0.0
A LITTLE	1	1.0	0	0.0	1	1.0
NO DIFFICULTY	15	14.9	0	0.0	15	14.9
MORE THAN 25 BOOKS						
COULD NOT READ	0	0.0	0	0.0	0	0.0
GREAT DEAL	0	0.0	0	0.0	0	0.0
SOME	0	0.0	0	0.0	0	0.0
A LITTLE	0	0.0	0	0.0	0	0.0
NO DIFFICULTY	5	5.0	0	0.0	5	5.0
TOTAL	101	100.0	16	15.8	85	84.2

Table 11.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
DO NOT READ						
CANNOT READ	1	1.0	1	1.0	0	0.0
GREAT DEAL	1	1.0	1	1.0	0	0.0
SOME	0	0.0	0	0.0	0	0.0
A LITTLE	1	1.0	0	0.0	1	1.0
NO DIFFICULTY	0	0.0	0	0.0	0	0.0
NEWSPAPERS AND MAGAZINES						
CANNOT READ	0	0.0	0	0.0	0	0.0
GREAT DEAL	5	5.0	0	0.0	5	5.0
SOME	6	5.9	1	1.0	5	5.0
A LITTLE	7	6.9	3	3.0	4	4.0
NO DIFFICULTY	10	9.9	4	4.0	6	5.9
1-3 BOOKS						
CANNOT READ	0	0.0	0	0.0	0	0.0
GREAT DEAL	1	1.0	0	0.0	1	1.0
SOME	2	2.0	0	0.0	2	2.0
A LITTLE	8	7.9	1	1.0	7	6.9
NO DIFFICULTY	16	15.8	3	3.0	13	12.9
4-9 BOOKS						
CANNOT READ	0	0.0	0	0.0	0	0.0
GREAT DEAL	0	0.0	0	0.0	0	0.0
SOME	5	5.0	0	0.0	5	5.0
A LITTLE	5	5.0	1	1.0	4	4.0
NO DIFFICULTY	9	8.9	0	0.0	9	8.9
10-25 BOOKS						
CANNOT READ	1	1.0	0	0.0	1	1.0
GREAT DEAL	0	0.0	0	0.0	0	0.0
SOME	2	2.0	0	0.0	2	2.0
A LITTLE	2	2.0	0	0.0	2	2.0
NO DIFFICULTY	7	6.9	0	0.0	7	6.9

Table 11.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
MORE THAN 25 BOOKS						
CANNOT READ	1	1.0	0	0.0	1	1.0
GREAT DEAL	1	1.0	0	0.0	1	1.0
SOME	0	0.0	0	0.0	0	0.0
A LITTLE	2	2.0	0	0.0	2	2.0
NO DIFFICULTY	8	7.9	1	1.0	7	6.9
TOTAL	101	100.0	16	15.8	85	84.2

higher levels of activity. In fact, for one respondent whose reading had increased significantly, as noted in the discussion of increased reading activity from the past to the present, visual problems were severe, and the respondent presently read only "books" in the formats provided by the National Library Service for the Blind and Physically Handicapped (books recorded on disc and tape).

Hearing

For the past period in respondents' lives (ages 40-55), the pattern was one of an absence of hearing difficulties. No one reported having a "great deal of difficulty." One reported having "some difficulty" in hearing and only a few (N=3) respondents reported having a "little difficulty." The majority of respondents (N=97) reported "no difficulty"

with "hearing everyday conversations" in the past.

For the present period (ages 65 and over), the pattern was one of general decline. Several (N=7) now reported a "great deal of difficulty" in hearing. Those reporting "some difficulty" had also increased (N=13). Those reporting "a little difficulty" had increased considerably (N=36). The number reporting "no difficulty" in "hearing everyday conversations" had declined by more than half (N=45). The pattern of increased hearing difficulty in later life has been noted by others.³⁴³ (Table 12)

Table 12.--Past and present level of difficulty in hearing everyday conversations

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
GREAT DEAL	0	0.0	0	0.0	0	0.0
SOME	1	1.0	1	1.0	0	0.0
A LITTLE	3	3.0	1	1.0	2	2.0
NO DIFFICULTY	97	96.0	14	13.9	83	82.2
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
GREAT DEAL	7	6.9	0	0.0	7	6.9
SOME	13	12.9	3	3.0	10	9.9
A LITTLE	36	35.6	11	10.9	25	24.8
NO DIFFICULTY	45	44.6	2	2.0	43	42.6
TOTAL	101	100.0	16	15.8	85	84.2

³⁴³Ibid., 708-709.

Mobility

For the past period in respondents' lives (ages 40-55), the pattern was one of an absence of difficulties with physical mobility. No one reported having a "great deal of difficulty." Two respondents reported "some difficulty." One had polio as a young adult and one had spinal meningitis in childhood. Several (N=6) respondents reported having "a little difficulty" with mobility. The overwhelming majority of respondents (N=93) reported "no difficulty" in moving around to perform everyday activities.

The pattern for the later time period (ages 65 and over) followed the pattern of general decline already noted. Although only a few (N=3) respondents reported having "a great deal of difficulty," larger numbers reported having "some difficulty" (N=19), and "a little difficulty," (N=25). The number of respondents reporting "no difficulty" had declined by almost half (N=54), with corresponding increases in all other categories. Again, this pattern has been noted in the population as a whole.³⁴⁴ (Table 13)

Environmental Constraints

Transportation

Most Used Form of Transportation

The responses for these questions, for past and present time periods, were designed to gauge which form of trans-

³⁴⁴Ibid., 709-710.

Table 13.--Past and present level of difficulty in moving around to perform everyday activities

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
GREAT DEAL	0	0.0	0	0.0	0	0.0
SOME	2	2.0	0	0.0	2	2.0
A LITTLE	6	5.9	0	0.0	6	5.9
NO DIFFICULTY	93	92.1	16	15.8	77	76.2
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
GREAT DEAL	3	3.0	0	0.0	3	3.0
SOME	19	18.8	2	2.0	17	16.8
A LITTLE	25	24.8	3	3.0	22	21.8
NO DIFFICULTY	54	53.5	11	10.9	43	42.6
TOTAL	101	100.0	16	15.8	85	84.2

portation was "most used" by respondents, regardless of perceived convenience. For instance, out of necessity, perhaps because of inability to afford a second car, a respondent may have satisfied most transportation requirements in the past by riding with a friend or relative. Yet, if given a preference, the respondent may have preferred owning and driving a personal car. Similarly, for the present, a respondent may no longer own a personal car because of visual difficulties and may satisfy transportation needs by riding with friends and relatives. However, if given a preference, the respondent may still prefer

owning and driving a personal car.

For the previous period in respondents' lives (ages 40-55), driving oneself was the "most used" source of transportation for a majority of respondents (N=81). All other forms of transportation received much less use. After driving oneself, public transportation was the second "most used" form of transportation for respondents (N=12).

Being driven in the family car was the "most used" for several respondents (N=7), and riding with another relative or friend was the "most used" by only one. Walking was not rated as "most used" by anyone.

For the present period in respondents' lives (ages 65 and over), driving oneself remained the "most used" form of transportation, used by a slight majority of respondents (N=57), but declining considerably from the previous period. Being driven by a friend or relative had increased in use (N=21), and was the next "most used" after driving oneself.

SPAN was the "most used" form of transportation for several respondents (N=12). Using a van provided by the residence, although available to only 34 at Denton Good Samaritan Village, was "most used" by a few less (N=6) than the number using SPAN. Being driven in the family car was "most used" by only a few (N=5). Walking, or the use of local public transportation was mentioned as "most used" by no one. (Table 14)

Table 14.--Past and present reports of most used form of transportation by sex

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
WALKING						
NOT USED	101	100.0	16	15.8	85	84.2
MOST USED	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2
PUBLIC TRANSPORTATION						
NOT USED	89	88.1	14	13.9	75	74.3
MOST USED	12	11.9	2	2.0	10	9.9
TOTAL	101	100.0	16	15.8	85	84.2
FRIEND/RELATIVE						
NOT USED	100	99.0	16	15.8	84	83.2
MOST USED	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2
FAMILY CAR						
NOT USED	94	93.1	16	15.8	78	77.2
MOST USED	7	6.9	0	0.0	7	6.9
TOTAL	101	100.0	16	15.8	85	84.2
DROVE SELF						
NOT USED	20	19.8	2	2.0	18	17.8
MOST USED	81	80.2	14	13.9	67	66.3
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
WALKING						
NOT USED	101	100.0	16	15.8	85	84.2
MOST USED	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2

Table 14.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
PUBLIC TRANSPORTATION						
NOT USED	101	100.0	16	15.8	85	84.2
MOST USED	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2
FRIEND/RELATIVE						
NOT USED	80	79.2	14	13.9	66	65.3
MOST USED	21	20.8	2	2.0	19	18.8
TOTAL	101	100.0	16	15.8	85	84.2
FAMILY CAR						
NOT USED	96	95.0	16	15.8	80	79.2
MOST USED	5	5.0	0	0.0	5	5.0
TOTAL	101	100.0	16	15.8	85	84.2
DRIVE SELF						
NOT USED	44	43.6	3	3.0	41	40.6
MOST USED	57	56.4	13	12.9	44	43.6
TOTAL	101	100.0	16	15.8	85	84.2
USE SPAN						
NOT USED	89	88.1	16	15.8	73	72.3
MOST USED	12	11.9	0	0.0	12	11.9
TOTAL	101	100.0	16	15.8	85	84.2
USE VAN						
NOT USED	95	94.1	15	14.9	80	79.2
MOST USED	6	5.9	1	1.0	5	5.0
TOTAL	101	100.0	16	15.8	85	84.2

Convenience of Forms of Transportation

The responses for these questions for the past and present were designed to rank the perceived convenience of forms of transportation whether or not the form of transportation was actually used. Answers do not necessarily correlate with previous answers. For instance, respondents might have indicated that riding with a friend or relative was the most used form of transportation, if they were unable, due to any number of circumstances, to drive themselves. However, respondents might rather have driven themselves in their own car, if given a preference. Then, in order of preference, they would have given "riding with a friend or relative" a lower ranking, and although they did not own a car, given that a higher ranking.

For the past period in respondents' lives (ages 40-55), answers to these questions offer a different perspective on popularity. Driving oneself was still very popular, given a ranking of convenience by an overwhelming number of respondents (N=88), and was "most convenient" for 84. Being driven by a friend or relative was next, given a ranking of convenience by over half (N=67), but was "most convenient" for no one.

Next was walking (N=66), which was "most convenient" for only one. Being driven in the family car was also given a ranking of convenience by over half the respondents (N=56), but it was "most convenient" for only 6. Public

transportation was also fairly popular (N=42), but was "most convenient" for only 10. However, driving oneself was the only method ranked as "most convenient" (N=84), by an overwhelming majority of all those using it (N=88).

Overall, there was a wide range of rankings of convenience given for each method of transportation except driving oneself. (Table 15)

For the later period in respondents' lives (ages 65 and over), driving oneself gains in convenience. This method is either the "most convenient" (N=91), or it is not used. Being driven by a friend or family member was given a ranking of convenience by a large number (N=91), but was "most convenient" for only 4. SPAN was given a ranking of convenience as a method of transportation by over half (N=60), but was "most convenient" for only 2.

Walking was given a ranking of convenience by almost half (N=49), but was "most convenient" for only 6. Being driven in the family car shows a decline from the previous period, being given a ranking of convenience by slightly over one-third (N=35), and was "most convenient" for only 4. Public transportation was given a ranking of convenience by one-quarter (N=25), but was "most convenient" for no one. Using a van provided by the residence was given a ranking of convenience by one quarter (N=25) and was quite popular, considering that van service was available only to the 34 respondents at Denton Good Samaritan Village, but was "most

Table 15.--Past and present ranking of convenience of forms of transportation by sex

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
WALKED						
NOT USED	35	34.7	8	7.9	27	26.7
LEAST	0	0.0	0	0.0	0	0.0
SELDOM	6	5.9	0	0.0	6	5.9
SOMETIMES	33	32.7	6	5.9	27	26.7
OFTEN	26	25.7	2	2.0	24	23.8
MOST	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2
PUBLIC TRANSPORTATION						
NOT USED	59	58.4	10	9.9	49	48.5
LEAST	2	2.0	0	0.0	2	2.0
SELDOM	7	6.9	0	0.0	7	6.9
SOMETIMES	5	5.0	2	2.0	3	3.0
OFTEN	18	17.8	2	2.0	16	15.8
MOST	10	9.9	2	2.0	8	7.9
TOTAL	101	100.0	16	15.8	85	84.2
FRIEND/RELATIVE						
NOT USED	34	33.7	9	8.9	25	24.8
LEAST	1	1.0	0	0.0	1	1.0
SELDOM	14	13.9	1	1.0	13	12.9
SOMETIMES	23	22.8	0	0.0	23	22.8
OFTEN	29	28.7	6	5.9	23	22.8
MOST	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2
FAMILY CAR						
NOT USED	45	44.6	9	8.9	36	35.6
LEAST	4	4.0	0	0.0	4	4.0
SELDOM	11	10.9	3	3.0	8	7.9
SOMETIMES	15	14.9	1	1.0	14	13.9
OFTEN	20	19.8	2	2.0	18	17.8
MOST	6	5.9	1	1.0	5	5.0
TOTAL	101	100.0	16	15.8	85	84.2

Table 15.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
DROVE SELF						
NOT USED	13	12.9	0	0.0	13	12.9
LEAST	0	0.0	0	0.0	0	0.0
SELDOM	1	1.0	1	1.0	0	0.0
SOMETIMES	0	0.0	0	0.0	0	0.0
OFTEN	3	3.0	2	2.0	1	1.0
MOST	84	83.2	13	12.9	71	70.3
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
WALK						
NOT USED	52	51.5	7	6.9	45	44.6
LEAST	7	6.9	0	0.0	7	6.9
SELDOM	20	19.8	4	4.0	16	15.8
SOMETIMES	16	15.8	3	3.0	13	12.9
OFTEN	6	5.9	2	2.0	4	4.0
MOST						
TOTAL	101	100.0	16	15.8	85	84.2
PUBLIC TRANSPORTATION						
NOT USED	76	75.2	14	13.9	62	61.4
LEAST	9	8.9	0	0.0	9	8.9
SELDOM	12	11.9	1	1.0	11	10.9
SOMETIMES	2	2.0	0	0.0	2	2.0
OFTEN	2	2.0	1	1.0	1	1.0
MOST	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2
FRIEND/RELATIVE						
NOT USED	10	9.9	3	3.0	7	6.9
LEAST	1	1.0	0	0.0	1	1.0
SELDOM	8	7.9	1	1.0	7	6.9
SOMETIMES	34	33.7	5	5.0	29	28.7
OFTEN	44	43.6	7	6.9	37	36.6
MOST	4	4.0	0	0.0	4	4.0
TOTAL	101	100.0	16	15.8	85	84.2

Table 15.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
FAMILY CAR						
NOT USED	66	65.3	11	10.9	55	54.5
LEAST	4	4.0	1	1.0	3	3.0
SELDOM	4	4.0	0	0.0	4	4.0
SOMETIMES	7	6.9	1	1.0	6	5.9
OFTEN	16	15.8	3	3.0	13	12.9
MOST	4	4.0	0	0.0	4	4.0
TOTAL	101	100.0	16	15.8	85	84.2
DRIVE SELF						
NOT USED	10	9.9	0	0.0	10	9.9
LEAST	0	0.0	0	0.0	0	0.0
SELDOM	0	0.0	0	0.0	0	0.0
SOMETIMES	0	0.0	0	0.0	0	0.0
OFTEN	0	0.0	0	0.0	0	0.0
MOST	91	90.1	16	15.8	75	74.3
TOTAL	101	100.0	16	15.8	85	84.2
USE SPAN						
NOT USED	41	40.6	14	13.9	27	26.7
LEAST	3	3.0	0	0.0	3	3.0
SELDOM	13	12.9	1	1.0	12	11.9
SOMETIMES	22	21.8	1	1.0	21	20.8
OFTEN	20	19.8	0	0.0	20	19.8
MOST	2	2.0	0	0.0	2	2.0
TOTAL	101	100.0	16	15.8	85	84.2
USE VAN						
NOT USED	9	8.9	4	4.0	5	5.0
LEAST	1	1.0	0	0.0	1	1.0
SELDOM	4	4.0	1	1.0	3	3.0
SOMETIMES	9	8.9	3	3.0	6	5.9
OFTEN	11	10.9	3	3.0	8	7.9
MOST	0	0.0	0	0.0	0	0.0
NOT AVAILABLE	67	66.3	5	5.0	62	61.4
TOTAL	101	100.0	16	15.8	85	84.2

convenient" for no one. As in the past, there was a wide range of rankings convenience for every type of transportation, except driving oneself.

The use of various forms of transportation corresponds generally with Carp's assessment. While Carp did not rank methods of transportation, driving oneself and being driven by friends or a family member were described as the most likely methods of transportation to be popular with older adults.³⁴⁵ (Table 15)

Income Satisfaction

In terms of income satisfaction, for the previous period in respondents' lives (ages 40-55), slightly over half (N=59) either "disagreed" (N=47) or "strongly disagreed" (N=12) with the statement "I had enough money to do all the things I wanted to do," indicating that they perceived that their income was less than adequate in this period. This was also true for females (N=52), but for males, the balance tipped in the opposite direction; a slight majority (N=9) "agreed" that their income was adequate, although no one "strongly agreed." For the total sample, over one-third (N=38) "agreed," and a few (N=4) "strongly agreed" with the statement, indicating that they felt their income was adequate during the past period.

³⁴⁵Carp, "Improving the Functional Quality of . . . Environments Through Transportation," 130-132.

For the present time period (ages 65 and over), slightly less than one-third "disagreed" (N=30) and a few (N=4) "strongly disagreed," with the statement "I have enough money to do all the things that I want to do," indicating that they have less than adequate income. A majority of respondents (N=67), either "agreed" (N=54) or "strongly agreed" (N=13) with the statement, indicating that they felt their income was adequate for the present period. This pattern held true for males (N=13) as well as for females (N=54), a change from the previous period, indicating increased income satisfaction during the present. (Table 16)

Table 16.--Past and present responses to "Did/Do You have enough money to do all the things you want to do?"

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
STRONGLY DISAGREE	12	11.9	2	2.0	10	9.9
DISAGREE	47	46.5	5	5.0	42	41.6
AGREE	38	37.6	9	8.9	29	28.7
STRONGLY AGREE	4	4.0	0	0.0	4	4.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
STRONGLY DISAGREE	4	4.0	0	0.0	4	4.0
DISAGREE	30	29.7	3	3.0	27	26.7
AGREE	54	53.5	10	9.9	44	43.6
STRONGLY AGREE	13	12.9	3	3.0	10	9.9
TOTAL	101	100.0	16	15.8	85	84.2

Book Purchasing

In answer to the question "Do you purchase books more or less frequently now than you did at ages 40-55?", a majority of respondents (N=63) indicated that they purchase books "less frequently" for the present period (ages 65 and over), than for the past period (ages 40-55). Several (N=15) indicated that they purchase books "about the same" as in the past. Less than one quarter (N=23) reported that they purchased books "more frequently" than in the past. The tendency to purchase books "less frequently" or "about the same" as in the past was noted despite the general increase in income adequacy reported in table 16. The Consumer Research Study on Reading and Book Purchasing reported that ". . . moderately light spenders (\$10-25) [for book purchases] are most likely of all groups to be 50 and over."³⁴⁶ (Table 17)

Table 17.--Responses to "Do you purchase books more or less frequently now than you did at ages 40-55?"

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
LESS FREQUENTLY	63	62.4	9	8.9	54	53.5
ABOUT THE SAME	15	14.9	4	4.0	11	10.9
MORE FREQUENTLY	23	22.8	3	3.0	20	19.8
TOTAL	101	100.0	16	15.8	85	84.2

³⁴⁶Yankelovich, Skelly, and White, Consumer Research Study, 116.

Importance of Price in Book Purchasing

In response to the statement "Price is a more important consideration when I buy reading materials now that when I was 40-55," the respondents were almost evenly divided in terms of the importance of price in purchasing reading materials for the present period. Half (N=50) expressed some level of agreement, and the other half (N=49) expressed some level of disagreement. Two respondents indicated that the question was not applicable because they no longer bought materials because of poor eyesight. (Table 18)

The number of respondents in each category of disagreement were "strongly disagree" (N=12), "disagree" (N=22), and "slightly disagree" (N=15). The number of respondents in each category of agreement were "slightly agree" (N=20), "agree" (N=12), and "strongly agree" (N=18).

The Consumer Research Study on Reading and Book Purchasing noted that ". . . the price of books is not a major factor . . . contrary to popular belief. . . . Price has a comparative importance (e.g., [the purchase of] paperback versus hardcover books), but it is not a deterrent to book reading in general."³⁴⁷ However, this was noted for the study in general, not for older book purchasers as a sub-group. (Table 18)

³⁴⁷Ibid., 22.

Table 18.--Responses to "Price is a more important consideration when I buy reading materials now than when I was 40-55."

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
NOT APPLICABLE	2	2.0	0	0.0	2	2.0
STRONGLY DISAGREE	12	11.9	2	2.0	10	9.9
DISAGREE	22	21.8	5	5.0	17	16.8
SLIGHTLY DISAGREE	15	14.9	3	3.0	12	11.9
SLIGHTLY AGREE	20	19.8	2	2.0	18	17.8
AGREE	12	11.9	2	2.0	10	9.9
STRONGLY AGREE	18	17.8	2	2.0	16	15.8
TOTAL	101	100.0	16	15.8	85	84.2

External Channels of Distribution

Bookstore

For the previous period in respondents' lives (ages 40-55), bookstore use, at some level of frequency, was fairly popular (N=48). However, for the present period (ages 65 and over), the number using this channel of distribution for reading materials had declined by more than half (N=20).

Respondents who continued to use a bookstore tended to rank it in one of the higher categories. The Consumer Research Study on Reading and Book Purchasing notes that "bookstore purchasers are more likely to be under 30 than nonbookstore purchasers."³⁴⁸ (Table 19)

³⁴⁸Ibid., 185.

Table 19.--Past and present use of bookstore

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	53	52.5	8	7.9	5	44.6
SELDOM USED	1	1.0	0	0.0	1	1.0
INFREQUENTLY USED	5	5.0	0	0.0	5	5.0
SOMETIMES USED	4	4.0	0	0.0	4	4.0
FREQUENTLY USED	5	5.0	1	1.0	4	4.0
OFTEN USED	12	11.9	2	2.0	10	9.9
VERY OFTEN USED	12	11.9	2	2.0	10	9.9
MOST USED	9	8.9	3	3.0	6	5.9
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	81	80.2	14	13.9	67	66.3
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	1	1.0	0	0.0	1	1.0
FREQUENTLY USED	1	1.0	0	0.0	1	1.0
OFTEN USED	4	4.0	0	0.0	4	4.0
VERY OFTEN USED	6	5.9	1	1.0	5	5.0
MOST USED	8	7.9	1	1.0	7	6.9
TOTAL	101	100.0	16	15.8	85	84.2

Used/Secondhand Bookstore

In the past period (ages 40-55), the used/secondhand bookstore was a popular channel of distribution for reading materials with almost one-quarter of respondents (N=21). For the present period (ages 65 and over), use declined (N=9) by more than half. When used, it tends to receive a higher ranking. The Consumer Research Study on Reading and

Book Purchasing reported that relative to book purchasers as a group, the used/secondhand bookstore was one of the channels of distribution more likely to be used by those over 50.³⁴⁹ (Table 20)

Table 20.--Past and present use of used/secondhand bookstore

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	80	79.2	13	12.9	67	66.3
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	1	1.0	0	0.0	1	1.0
FREQUENTLY USED	8	7.9	1	1.0	7	6.9
OFTEN USED	3	3.0	2	2.0	1	1.0
VERY OFTEN USED	5	5.0	0	0.0	5	5.0
MOST USED	4	4.0	0	0.0	4	4.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	92	91.1	16	15.8	76	75.2
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	0	0.0	0	0.0	0	0.0
FREQUENTLY USED	0	0.0	0	0.0	0	0.0
VERY OFTEN USED	2	2.0	0	0.0	2	2.0
MOST USED	7	6.9	0	0.0	7	6.9
TOTAL	101	100.0	16	15.8	85	84.2

³⁴⁹Ibid., 183-185, 194.

Newsstand

In the past period (ages 40-55), the newsstand was a fairly popular channel of distribution for reading materials (N=45). However, for the present period (ages 65 and over), use has declined considerably (N=11). When used in the present, the newsstand tends to receive a higher ranking. (Table 21)

Table 21.--Past and present use of the newsstand

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	56	55.4	7	6.9	49	48.5
LEAST USED	1	1.0	0	0.0	1	1.0
SELDOM USED	1	1.0	1	1.0	0	0.0
INFREQUENTLY USED	3	3.0	0	0.0	3	3.0
SOMETIMES USED	6	5.9	2	2.0	4	4.0
FREQUENTLY USED	5	5.0	0	0.0	5	5.0
OFTEN USED	8	7.9	0	0.0	8	7.9
VERY OFTEN USED	12	11.9	4	4.0	8	7.9
MOST USED	9	8.9	2	2.0	7	6.9
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	90	89.1	12	11.9	78	77.2
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	1	1.0	0	0.0	1	1.0
FREQUENTLY USED	2	2.0	0	0.0	2	2.0
OFTEN USED	1	1.0	0	0.0	1	1.0
VERY OFTEN USED	4	4.0	3	3.0	1	1.0
MOST USED	3	3.0	1	1.0	2	2.0
TOTAL	101	100.0	16	15.8	85	84.2

Department Store

For the past period in respondents' lives (ages 40-55), the department store was a popular channel of distribution for reading materials only with a minority (N=16). For the present (ages 65 and over), use has declined considerably (N=1), but the department store was ranked as the most important outlet by the respondent who used it. As noted in The Consumer Research Study on Reading and Book Purchasing, this type of outlet is more likely to be used by those over 50.³⁵⁰ (Table 22)

Table 22.--Past and present use of the department store book section

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	85	84.2	14	13.9	71	70.3
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	3	3.0	0	0.0	3	3.0
INFREQUENTLY USED	1	1.0	0	0.0	1	1.0
SOMETIMES USED	2	2.0	0	0.0	2	2.0
FREQUENTLY USED	1	1.0	0	0.0	1	1.0
OFTEN USED	4	4.0	1	1.0	3	3.0
VERY OFTEN USED	4	4.0	1	1.0	3	3.0
MOST USED	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2

³⁵⁰Ibid., 183-185, 194.

Table 22.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
NOT USED	100	99.0	16	15.8	84	83.2
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	0	0.0	0	0.0	0	0.0
FREQUENTLY USED	0	0.0	0	0.0	0	0.0
OFTEN USED	0	0.0	0	0.0	0	0.0
VERY OFTEN USED	0	0.0	0	0.0	0	0.0
MOST USED	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2

Discount Store

In the past period (ages 40-55), the discount store as a channel of distribution was used by only a minority (N=12) for the acquisition of reading materials. For the present period (ages 65 and over), this was still the case, and use had declined (N=4). When used in the present, the discount store tended to receive a higher ranking. (Table 23)

As noted in the Consumer Research Study on Reading and Book Purchasing, for the study in general, price was not necessarily a deterrent to book purchasing.³⁵¹ For the respondents in this study as well, there was a tendency (see table 16) for income satisfaction to increase from the past period (ages 40-55) to the present period (ages 65 and

³⁵¹Ibid., 22.

over). Thus, factors other than price discounts for reading materials may influence the use or nonuse of the discount store by older adults.

Table 23.--Past and present use of the discount store

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	89	88.1	15	14.9	74	73.3
LEAST USED	1	1.0	0	0.0	1	1.0
SELDOM USED	1	1.0	0	0.0	1	1.0
INFREQUENTLY USED	3	3.0	0	0.0	3	3.0
SOMETIMES USED	2	2.0	0	0.0	2	2.0
FREQUENTLY USED	1	1.0	1	1.0	0	0.0
OFTEN USED	1	1.0	0	0.0	1	1.0
VERY OFTEN USED	1	1.0	0	0.0	1	1.0
MOST USED	2	2.0	0	0.0	2	2.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	97	96.0	16	15.8	81	80.2
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	0	0.0	0	0.0	0	0.0
FREQUENTLY USED	0	0.0	0	0.0	0	0.0
OFTEN USED	0	0.0	0	0.0	0	0.0
VERY OFTEN USED	3	3.0	0	0.0	3	3.0
MOST USED	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2

Grocery Store

For the previous period in respondents' lives (ages 40-55), the grocery store was a popular channel of distribution

(N=53) for the acquisition of reading materials. For the present period (ages 65 and over), it remains a fairly popular channel of distribution, although use has declined (N=33). When used, the grocery store tends to receive a higher ranking. As noted in The Consumer Research Study on Reading and Book Purchasing, this type of outlet is more

Table 24.--Past and present use of the grocery store

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	48	47.5	12	11.9	36	35.6
LEAST USED	2	2.0	0	0.0	2	2.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	5	5.0	1	1.0	4	4.0
SOMETIMES USED	4	4.0	0	0.0	4	4.0
FREQUENTLY USED	12	11.9	0	0.0	12	11.9
OFTEN USED	14	13.9	0	0.0	14	13.9
VERY OFTEN USED	10	9.9	2	2.0	8	7.9
MOST USED	6	5.9	1	1.0	5	5.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	68	67.3	16	15.8	52	51.5
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	0	0.0	0	0.0	0	0.0
FREQUENTLY USED	2	2.0	0	0.0	2	2.0
OFTEN USED	9	8.9	0	0.0	9	8.9
VERY OFTEN USED	9	8.9	0	0.0	9	8.9
MOST USED	13	12.9	0	0.0	13	12.9
TOTAL	101	100.0	16	15.8	85	84.2

likely to be used by those over 50.³⁵² (Table 24)

Garage Sale/Flea Market

For the past period (ages 40-55), the garage sale/flea market was used as a distribution channel by a small minority (N=7) for acquiring reading materials. For the present (ages 65 and over), this was still the case (N=4). However, when used in the present, it tended to receive a high ranking. The Consumer Research Study on Reading and Book Purchasing noted that price alone did not deter book reading in general, but also noted a tendency for this source to be used by those over 50.³⁵³ Since there was a

Table 25.--Past and present use of the garage sale/flea market

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	94	93.1	15	14.9	79	78.2
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	1	1.0	0	0.0	1	1.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	1	1.0	1	1.0	0	0.0
FREQUENTLY USED	3	3.0	0	0.0	3	3.0
OFTEN USED	0	0.0	0	0.0	0	0.0
VERY OFTEN USED	1	1.0	0	0.0	1	1.0
MOST USED	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2

³⁵²Ibid., 183-185, 194.

³⁵³Ibid., 22, 183-185, 194.

Table 25.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
NOT USED	97	96.0	16	15.8	81	80.2
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	0	0.0	0	0.0	0	0.0
FREQUENTLY USED	0	0.0	0	0.0	0	0.0
OFTEN USED	0	0.0	0	0.0	0	0.0
VERY OFTEN USED	3	3.0	0	0.0	3	3.0
MOST USED	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2

tendency (see table 16) for income satisfaction to increase from the past to the present period, factors other than price may influence the use or nonuse of the garage sale/flea market by older adults.

Public Library

For the past period in respondents' lives (ages 40-55), the public library was the second most popular channel of distribution for the acquisition of reading materials (N=63). For the present period (ages 65 and over), use had declined sharply, by two-thirds (N=17). When used in the present period, the public library was usually given a higher ranking. This confirms the results of many previously cited studies, which note a decline in library

use with increasing age. (Table 26)

Table 26.--Past and present use of the public library

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	38	37.6	8	7.9	30	29.7
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	1	1.0	0	0.0	1	1.0
SOMETIMES USED	1	1.0	0	0.0	1	1.0
FREQUENTLY USED	2	2.0	1	1.0	1	1.0
OFTEN USED	10	9.9	3	3.0	7	6.9
VERY OFTEN USED	17	16.8	2	2.0	15	14.9
MOST USED	32	31.7	2	2.0	30	29.7
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	84	83.2	11	10.9	73	72.3
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	0	0.0	0	0.0	0	0.0
FREQUENTLY USED	1	1.0	0	0.0	1	1.0
OFTEN USED	0	0.0	0	0.0	0	0.0
VERY OFTEN USED	4	4.0	0	0.0	4	4.0
MOST USED	12	11.9	5	5.0	7	6.9
TOTAL	101	100.0	16	15.8	85	84.2

The Consumer Research Study on Reading and Book Purchasing, Watson's Canadian study, studies by the National Council on the Aging in 1975 and 1981, and Shaughnessy, all

reported low utilization of libraries by older adults.³⁵⁴ However, Watson noted the tendency that the public library, when used, was relatively more important for older adults.³⁵⁵

Academic Library

For the past period in respondents' lives (ages 40-55), the academic library as a channel of distribution for reading materials was used by almost one-quarter of the respondents (N=23). For the present period (ages 65 and over), use had declined sharply (N=2). When used in the present, the academic library tended to be given a higher ranking.

Since the educational levels of the sample were higher than those in the population as a whole, and there were two academic libraries in the community, the low utilization of academic libraries by the older adults in this study seems to indicate a need for further investigation of the reasons for the use and non-use of academic libraries by older adults. Kennedy's study suggested that one group of older adults who may tend to utilize academic libraries more intensively are those who participate in Elderhostel

³⁵⁴Yankelovich, Skelly, and White, Consumer Research Study, 213; Watson, Leisure Reading Habits, 70; National Council on the Aging, Myth and Reality of Aging, 177; National Council on the Aging, Aging in the Eighties, 24; Shaugnessy, "Influence of Distance and Travel Time," 128-132.

³⁵⁵Watson, Leisure Reading Habits, 72.

programs on college campuses.³⁵⁶

Table 27.--Past and present use of the academic library

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	78	77.2	12	11.9	66	65.3
LEAST USED	1	1.0	1	1.0	0	0.0
SELDOM USED	1	1.0	0	0.0	1	1.0
INFREQUENTLY USED	1	1.0	0	0.0	1	1.0
SOMETIMES USED	4	4.0	1	1.0	3	3.0
FREQUENTLY USED	0	0.0	0	0.0	0	0.0
OFTEN USED	2	2.0	0	0.0	2	2.0
VERY OFTEN USED	3	3.0	0	0.0	3	3.0
MOST USED	11	10.9	2	2.0	9	8.9
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	99	98.0	16	15.8	83	82.2
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	0	0.0	0	0.0	0	0.0
FREQUENTLY USED	0	0.0	0	0.0	0	0.0
OFTEN USED	1	1.0	0	0.0	1	1.0
VERY OFTEN USED	1	1.0	0	0.0	1	1.0
MOST USED	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2

³⁵⁶Mary Ellen Kennedy. "Older Adult Users of Academic Libraries," 12-13.

Church Library

In the previous period (ages 40-55), the church library was a moderately popular channel of distribution for reading materials (N=39). For the present period (ages 65 and over), this is still the case, although the number using it declines by almost half (N=22). The church library, when used in the present, tends to be given a higher ranking. (Table 28)

Table 28.--Past and present use of the church library

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	62	61.4	12	11.9	50	49.5
LEAST USED	1	1.0	0	0.0	1	1.0
SELDOM USED	1	1.0	0	0.0	1	1.0
INFREQUENTLY USED	2	2.0	1	1.0	1	1.0
SOMETIMES USED	4	4.0	0	0.0	4	4.0
FREQUENTLY USED	6	5.9	1	1.0	5	5.0
OFTEN USED	5	5.0	0	0.0	5	5.0
VERY OFTEN USED	12	11.9	1	1.0	11	10.9
MOST USED	8	7.9	1	1.0	7	6.9
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	79	78.2	14	13.9	65	64.4
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	0	0.0	0	0.0	0	0.0
FREQUENTLY USED	4	4.0	1	1.0	3	3.0
OFTEN USED	3	3.0	0	0.0	3	3.0
VERY OFTEN USED	6	5.9	1	1.0	5	5.0
MOST USED	9	8.9	0	0.0	9	8.9
TOTAL	101	100.0	16	15.8	85	84.2

Going to Visit Friends and Relatives
and Borrowing Reading Materials

For the past period in respondents' lives (ages 40-55), going to visit friends and relatives and borrowing reading materials was the most used external channel of distribution (N=76). For the present period (ages 65 and over), this

Table 29.--Past and present use of borrowing from friends and relatives

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	25	24.8	8	7.9	17	16.8
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	5	5.0	0	0.0	5	5.0
INFREQUENTLY USED	3	3.0	1	1.0	2	2.0
SOMETIMES USED	9	8.9	0	0.0	9	8.9
FREQUENTLY USED	10	9.9	1	1.0	9	8.9
OFTEN USED	20	19.8	2	2.0	18	17.8
VERY OFTEN USED	14	13.9	1	1.0	13	12.9
MOST USED	15	14.9	3	3.0	12	11.9
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	48	47.5	10	9.9	38	37.6
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	1	1.0	0	0.0	1	1.0
SOMETIMES USED	2	2.0	0	0.0	2	2.0
FREQUENTLY USED	3	3.0	0	0.0	3	3.0
OFTEN USED	10	9.9	1	1.0	9	8.9
VERY OFTEN USED	15	14.9	2	2.0	13	12.9
MOST USED	22	21.8	3	3.0	19	18.8
TOTAL	101	100.0	16	15.8	85	84.2

method is still very popular, although the number using it has declined (N=53). This would tend to confirm the results of other studies, such as The Consumer Research Study on Reading and Book Purchasing, Watson's Canadian study, and Wolf's study, on the importance of interaction with friends and relatives for the acquisition of reading materials.³⁵⁷ (Table 29)

Relative Rankings of External Channels of Distribution

Using the total number of respondents reporting use for each external channel of distribution, the rankings for the past (ages 40-55) and present (ages 65 and over) could be compared. The numbers in parentheses are the total number reporting use for each external channel of distribution in each time period.

It can be observed that overall, the number of respondents using each external channel of distribution declined from the past to the present. The relative popularity of each external channel of distribution changed also. Only going to visit friends and relatives and borrowing materials and the bookstore retained the same ranking. The public library fell from second position in the past to fifth position in the present, and the grocery store rose from third position in the past to second position in the

³⁵⁷Yankelovich, Skelly, and White, Consumer Research Study, 205-206; Watson, Leisure Reading Habits, 60-64; Wolf, "Leisure-Time Reading Behaviors," 48-52.

present. (Table 30)

Table 30.--Relative rankings of external channels of distribution for past and present

Age Range 40-55	Age range 65+
1. Borrowing from friends and relatives (76)*	1. Borrowing from friends and relatives (53)*
2. Public library (63)	2. Grocery store (33)
3. Grocery store (53)	3. Church library (22)
4. Bookstore (48)	4. Bookstore (20)
5. Newsstand (45)	5. Public library (17)
6. Church library (39)	6. Newsstand (11)
7. Academic library (23)	7. Used/secondhand bookstore (9)
8. Used/secondhand bookstore (21)	8. Discount store (4)
9. Department store (16)	9. Garage sale/flea market (4)
10. Discount store (12)	10. Academic library (2)
11. Garage sale/flea market (7)	11. Department store (1)

*Refers to going out to visit a friend or relative and borrowing reading materials.

Total Number of External Channels of Distribution Used

The pattern for the use of external channels of distribution was one of decline from the past to the present. For the previous period in respondents' lives, (ages 40-55), a very small number (N=3) reported using no external channels of distribution. Only a few (N=7) used one, but several (N=12) used two, and almost one-third (N=27) used three. In each remaining category, several used four (N=14), five (N=14), six (N=9), seven (N=9), and eight (N=6). The majority (N=91) used more than one external channel of distribution.

For the present period (ages 65 and over), there is a general pattern of decline. The number of respondents using no external channels of distribution had increased dramatically (N=24), as had the number of respondents using only one (N=24). One-quarter (N=25) use two, while several (N=15) use three. Slightly fewer (N=9) use four, still fewer (N=3) use five and only one uses six. No one reported using seven or the maximum number of outlets, eight. Only a few more than half (N=53) use more than one external channel of distribution in the present, a definite decline. A considerable number (N=40) use only two or three. The pattern of use for external channels of distribution was one of fairly dramatic decline, with respondents in the present using fewer external channels of distribution than in the past, and with the total number of external channels of distribution used declining considerably. (Table 31)

This might indicate that the decline in library use with increasing age is part of a larger pattern of decline in use of a variety of types of external channels of distribution. Since each external channel of distribution continues to be used by some of the respondents (see table 30), further investigation would determine factors which encourage continued use of a particular external channel of distribution, and conversely, which factors discourage use by older adults of specific external channels of distribution.

Table 31.--Comparison of total number of external channels of distribution used for past and present

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
0	3	3.0	2	2.0	1	1.0
1	7	6.9	1	1.0	6	5.9
2	12	11.9	3	3.0	9	8.9
3	27	26.7	4	4.0	23	22.8
4	14	13.9	2	2.0	12	11.9
5	14	13.9	1	1.0	13	12.9
6	9	8.9	2	2.0	7	6.9
7	9	8.9	0	0.0	9	8.9
8	6	5.9	1	1.0	5	5.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
0	24	23.8	6	5.9	18	17.8
1	24	23.8	3	3.0	21	20.8
2	25	24.8	6	5.9	19	18.8
3	15	14.9	0	0.0	15	14.9
4	9	8.9	1	1.0	8	7.9
5	3	3.0	0	0.0	3	3.0
6	1	1.0	0	0.0	1	1.0
7	0	0.0	0	0.0	0	0.0
8	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2

Proximate Channels of Distribution

Postal Delivery

For the past period in respondents' lives (ages 40-55), the great majority of respondents reported using postal delivery as a channel of distribution for the acquisition of reading materials (N=98). Only a few (N=3) respondents did

not use this channel of distribution, and two of them reported in conversation that they lived in rural areas and preferred to pick up their mail at the local post office in town. The remaining respondent in this category did not comment on the reason for not using postal delivery as a channel of distribution. Most of the respondents ranked postal delivery in categories from "frequently used" to "most used" (N=87).

For the present period (ages 65 and over), the use of postal delivery as a channel of distribution for acquiring reading materials increased (N=100). Only one respondent did not use it, and preferred to pick up mail at the post office. Most respondents continued to rank postal delivery in the categories of "frequently used" to "most used" (N=91). The category in which the greatest increase occurred was "often used," which showed an increase of 15, from 26 to 41. Postal delivery was a consistently important channel of distribution, tending to become more important in the present period. (Table 32)

Several types of materials used by the respondents in this study are available through postal delivery. Books from book clubs and mail order sources (tables 106 and 11 in Appendix C), magazines and out-of-town newspapers (Appendix D), and materials in the formats supplied by the National Library Service for the Blind and Physically Handicapped (see table 51), are all available through this channel of

distribution.

Table 32.--Past and present use of postal delivery

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	3	3.0	1	1.0	2	2.0
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	2	2.0	1	1.0	1	1.0
SOMETIMES USED	9	8.9	0	0.0	9	8.9
FREQUENTLY USED	28	27.7	4	4.0	24	23.8
OFTEN USED	26	25.7	6	5.9	20	19.8
VERY OFTEN USED	18	17.8	3	3.0	15	14.9
MOST USED	15	14.9	1	1.0	14	13.9
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	1	1.0	0	0.0	1	1.0
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	1	1.0	0	0.0	1	1.0
INFREQUENTLY USED	3	3.0	0	0.0	3	3.0
SOMETIMES USED	5	5.0	1	1.0	4	4.0
FREQUENTLY USED	23	22.8	8	7.9	15	14.9
OFTEN USED	41	40.6	5	5.0	36	35.6
VERY OFTEN USED	14	13.9	0	0.0	14	13.9
MOST USED	13	12.9	2	2.0	11	10.9
TOTAL	101	100.0	16	15.8	85	84.2

Newspaper Delivery

For the past period in respondents' lives (ages 40-55), newspaper delivery was a popular channel of distribution for information with the great majority of respondents (N=99).

It was ranked as "often used" to "most used" by the

overwhelming majority of those who used it (N=96).

For the present period (ages 65 and over), newspaper delivery was still an important channel of distribution, although the number using it dropped slightly (N=82). Those using newspaper delivery tended to rank it highly; the number reporting it as "often used" to "most used" was the same as the number reporting use (N=82). The most significant change was a loss of 37 for those regarding newspaper delivery as a "most used" source and an increase of 20 for those reporting it as "very often used." Watson noted a tendency for interest in serious newspaper reading for news items to increase with age.³⁵⁸ (Table 33)

Table 33.--Past and present use of newspaper delivery

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	2	2.0	0	0.0	2	2.0
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	1	1.0	0	0.0	1	1.0
SOMETIMES USED	1	1.0	1	1.0	0	0.0
FREQUENTLY USED	1	1.0	0	0.0	1	1.0
OFTEN USED	9	8.9	1	1.0	8	7.9
VERY OFTEN USED	27	26.7	3	3.0	24	23.8
MOST USED	60	59.4	11	10.9	49	48.5
TOTAL	101	100.0	16	15.8	85	84.2

³⁵⁸Watson, Leisure Reading Habits, 53-54.

Table 33.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
NOT USED	19	18.8	3	3.0	16	15.8
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	0	0.0	0	0.0	0	0.0
FREQUENTLY USED	0	0.0	0	0.0	0	0.0
OFTEN USED	12	11.9	3	3.0	9	8.9
VERY OFTEN USED	47	46.5	5	5.0	42	41.6
MOST USED	23	22.8	5	5.0	18	17.8
TOTAL	101	100.0	16	15.8	85	84.2

Personal Collection

For the past period in respondents' lives (ages 40-55), the use of a personal collection was important to a majority of respondents (N=81). Although a personal collection was seldom ranked as "most used" (N=2) or "very often used" (N=2), it was still important. Most of those reporting use ranked a personal collection in categories from "sometimes used" through "often used" (N=68).

For the present period (ages 65 and over), changes were minimal, with a slightly smaller number reporting use of a personal collection (N=72). It was seldom ranked as a "most used" (N=1) or "very often used" (N=2) way of utilizing reading materials. Most of those reporting use of a personal collection in the present ranked it from "infrequently

used" through "often used" (N=69). (Table 34)

Table 34.--Past and present use of a personal collection

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	20	19.8	4	4.0	16	15.8
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	1	1.0	0	0.0	1	1.0
INFREQUENTLY USED	8	7.9	2	2.0	6	5.9
SOMETIMES USED	32	31.7	4	4.0	28	27.7
FREQUENTLY USED	23	22.8	4	4.0	19	18.8
OFTEN USED	13	12.9	2	2.0	11	10.9
VERY OFTEN USED	2	2.0	0	0.0	2	2.0
MOST USED	2	2.0	0	0.0	2	2.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	29	28.7	7	6.9	22	21.8
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	10	9.9	2	2.0	8	7.9
SOMETIMES USED	21	20.8	2	2.0	19	18.8
FREQUENTLY USED	29	28.7	4	4.0	25	24.8
OFTEN USED	9	8.9	0	0.0	9	8.9
VERY OFTEN USED	2	2.0	1	1.0	1	1.0
MOST USED	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2

Residential Collection

The term "residential collection" for the past period in respondents' lives (ages 40-55) was used to refer to materials at the respondent's residence which were not a part of the respondent's personal collection, but instead

belonged to other individuals at the residence, or were shared by all the people living at the residence, such as encyclopedias or other reference books. Use of a residential collection for the past period was concentrated in the categories "infrequently used" (N=31), "sometimes used" (N=24), and "frequently used" (N=17). Overall, the use of a residential collection was popular in the past (N=78). Though not ranked as a "most used" method of obtaining reading materials, it was still basically popular.

The term "residential collection" for the present period (ages 65 and over) was used to refer to the separate reading collections maintained at each residential location for use by all the residents. Use of a residential collection was concentrated in the categories "infrequently used" (N=17), "sometimes used" (N=13), and "frequently used" (N=15), with the categories of "infrequently used," and "sometimes used" showing the largest declines.

There was a minimal increase reporting use of the residential collection as "most used" (N=1) or "very often used" (N=1). Overall, the use of a residential collection remains popular although use declines in the present (N=56). (Table 35)

The decline for use of this channel of distribution in the present may relate to the currency of materials. In the past, respondents may have had access to recent materials obtained by themselves or others, while the residential

collections of the present are composed for the most part of donated materials (see Appendix B), some of which are quite dated. Wolf and Sibold comment on the use of such collections in their studies.³⁵⁹

Table 35.--Past and present use of residential collection

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	23	22.8	4	4.0	19	18.8
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	2	2.0	0	0.0	2	2.0
INFREQUENTLY USED	31	30.7	1	1.0	30	29.7
SOMETIMES USED	24	23.8	7	6.9	17	16.8
FREQUENTLY USED	17	16.8	4	4.0	13	12.9
OFTEN USED	4	4.0	0	0.0	4	4.0
VERY OFTEN USED	0	0.0	0	0.0	0	0.0
MOST USED	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	45	44.6	8	7.9	37	36.6
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	4	4.0	0	0.0	4	4.0
INFREQUENTLY USED	17	16.8	2	2.0	15	14.9
SOMETIMES USED	13	12.9	4	4.0	9	3.0
FREQUENTLY USED	15	14.9	0	0.0	15	1.0
OFTEN USED	5	5.0	2	2.0	3	3.0
VERY OFTEN USED	1	1.0	0	0.0	1	1.0
MOST USED	1	1.0	0	0.0	1	1.0
TOTAL	101	100.0	16	15.8	85	84.2

³⁵⁹Wolf, "Leisure Reading Habits," 48-50; Sibold, "Reading and Televiewing Habits," 60.

Radio

Radio Ownership

Radio ownership remained constant for both past (ages 40-55), and present (ages 65 and over) periods in respondents' lives. For each period, the great majority (N=99) owned radios, while only two did not. (Table 36)

Table 36.--Past and present radio ownership

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
<u>Ages 40-55</u>						
NO	2	2.0	0	0.0	2	2.0
YES	99	98.0	16	15.8	83	82.2
TOTAL	101	100.0	16	15.8	85	84.2
<u>Ages 65+</u>						
NO	2	2.0	0	0.0	2	2.0
YES	99	98.0	16	15.8	83	82.2
TOTAL	101	100.0	16	15.8	85	84.2

Radio Ownership and Purpose for Listening to the Radio

For the previous period in respondents' lives (ages 40-55), the majority, noted in table 36, owned a radio (N=99). The respondents divided almost evenly in their purpose for listening, with almost half answering affirmatively to "I listened to the radio to find out what was going on in the world," (N=46), and half answering affirmatively to "I

listened to the radio for pleasure or entertainment," (N=51). About half of the males (N=8) listened for information and half (N=7) listened for pleasure. Among the females somewhat less than half (N=38) listened for information, and almost half (N=44) listened for pleasure. A small minority (N=4) did not listen; two did not own a radio, and two owned a radio but did not listen.

For the present period in respondents' lives (ages 65 and over), the great majority, noted in table 36, still own a radio (N=99). Division of the sample according to purpose for listening is more uneven; slightly more than half (N=53) listen for information, and somewhat less than half listen for pleasure (N=38). Males are still almost evenly divided in their purpose for listening; approximately half (N=6) listen for information and approximately half (N=8) listen for pleasure. Among the females, there is a slight increase in the number (N=47) who listen for information, and a slight decrease (N=30) in those who listen for pleasure. There is a slight increase in the number who do not listen (N=7). Two do not own a radio, and five own a radio but do not listen. Additional information on radio listening habits for the past and present time periods is presented in Appendix F. Rebottini also noted that listening to news and information on the radio was popular, since musical offerings often did not appeal to the older

adults in her study.³⁶⁰ (Table 37)

Table 37.--Past and present radio ownership and reason for listening to the radio, by sex

	RADIO OWNERSHIP					
	TOTAL		NO		YES	
	N	%	N	%	N	%
Age range 40-55						
MALE						
DID NOT LISTEN	1	1.0	0	0.0	1	1.0
WHAT WAS GOING ON	8	7.9	0	0.0	8	7.9
PLEASURE	7	6.9	0	0.0	7	6.9
FEMALE						
DID NOT LISTEN	3	3.0	2	2.0	1	1.0
WHAT WAS GOING ON	38	37.6	0	0.0	38	37.6
PLEASURE	44	43.6	0	0.0	44	43.6
TOTAL	101	100.0	2	2.0	99	98.0
Age range 65+						
MALE						
DO NOT LISTEN	2	2.0	0	0.0	2	2.0
WHAT IS GOING ON	6	6.0	0	0.0	6	6.0
PLEASURE	8	8.0	0	0.0	8	8.0
FEMALE						
DO NOT LISTEN	7	7.0	2	2.0	5	5.0
WHAT IS GOING ON	47	47.0	0	0.0	47	47.0
PLEASURE	30	30.0	0	0.0	30	30.0
TOTAL*	100	100.0	2	2.0	98	98.0

*one respondent declined to list any purpose for listening

³⁶⁰Rebottini, "Reading Interests and Habits," 93.

Use of Radio as a Proximate Channel of Distribution

For the previous period in respondents' lives, the majority (N=99), as noted in table 36, owned a radio, but it was a popular channel of distribution for information for slightly less (N=97), since as noted in table 37, since two did not own a radio and two owned radios and did not listen. Even fewer respondents (N=69) ranked the radio in one of the higher use categories, from "frequently used" to "most used."

For the present period in respondents' lives (ages 65 and over), the number reporting radio ownership, as noted in table 36, remained the same (N=99), but it was ranked as a popular channel of distribution by a few less (N=92), not surprising since the number indicating that they did not listen (N=7), as noted in table 37, had also increased. The number reporting use in almost all categories declined; those ranking the radio from "frequently used" to "most used" (N=51) also declined. The category "seldom used," increased somewhat (N=16). (Table 38)

Crosstabulations of the number of hours daily spent listening to the radio by sex for past and present time periods are in Appendix F. Additional information on radio listening habits for the past and present is also discussed in Appendix F. Watson, in the Canadian study, noted a tendency for radio listening to increase with increasing age, but noted no clear pattern for listening to increase

with increased education.³⁶¹

Table 38.--Past and present use of radio as a proximate channel of distribution

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	4	4.0	1	1.0	3	3.0
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	4	4.0	0	0.0	4	4.0
INFREQUENTLY USED	13	12.9	1	1.0	12	11.9
SOMETIMES USED	11	10.9	3	3.0	8	7.9
FREQUENTLY USED	16	15.8	2	2.0	14	13.9
OFTEN USED	25	24.8	4	4.0	21	20.8
VERY OFTEN USED	22	21.8	4	4.0	18	17.8
MOST USED	6	5.9	1	1.0	5	5.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	9	8.9	1	1.0	8	7.9
LEAST USED	1	1.0	0	0.0	1	1.0
SELDOM USED	16	15.8	2	2.0	14	13.9
INFREQUENTLY USED	12	11.9	0	0.0	12	11.9
SOMETIMES USED	12	11.9	2	2.0	10	9.9
FREQUENTLY USED	13	12.9	1	1.0	12	11.9
OFTEN USED	19	18.8	5	5.0	14	13.9
VERY OFTEN USED	16	15.8	4	4.0	12	11.9
MOST USED	3	3.0	1	1.0	2	2.0
TOTAL	101	100.0	16	15.8	85	84.2

Radio Reading Service

The Radio Reading Service was not used, either in the past or present. Lack of use in the past is not surprising, since respondents generally reported "no difficulty" (N=98)

³⁶¹Watson, Leisure Reading Habits, 109.

with their vision in table 10. However, those who reported increased difficulty with vision in the present did not use this service as a channel of distribution, including those who used the National Library Service for the Blind and Physically Handicapped. A small number reported in conversation (see Appendix F) that they were aware of the service. (Table 39)

Table 39.--Past and present use of Radio Reading Service

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	101	100.0	16	15.8	85	84.2
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	101	100.0	16	15.8	85	84.2
TOTAL	101	100.0	16	15.8	85	84.2

Television

Television Ownership

Television ownership was the norm for the past (N=87) although a minority in the past (N=14) indicated that they did not own a television. Conversation during the interview often revealed that the reason for non-ownership was that individuals lived in rural areas in the past period (N=12)

which did not have adequate television reception, rather than not owning because of a dislike for the medium. In the present, the number owning a television increased (N=98) and the number not owning a television declined considerably (N=3). (Table 40)

Table 40.--Past and present ownership of television

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NO	14	13.9	2	2.0	12	11.9
YES	87	86.1	14	13.9	73	72.3
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NO	3	3.0	1	1.0	2	2.0
YES	98	97.0	15	14.9	83	82.2
TOTAL	101	100.0	16	15.8	85	84.2

Television Ownership and Purpose for Watching Television

For the past period in respondents' lives (ages 40-55), most, as noted in table 40, owned a television (N=87). The majority (N=53) answered affirmatively that "I watched television to find out what was going on in the world," while a smaller number (N=33) answered affirmatively that "I watched television for pleasure or entertainment." Males indicated a preference for information (N=10), while only a

few (N=3) preferred viewing for pleasure. Females followed the same pattern, preferring information (N=43) over pleasure (N=30). Only one individual, a male, reported having a television but not watching it, stating in conversation that the television was for family use, but he preferred other activities.

For the present period in respondents' lives (ages 65 and over), the number owning a television has increased (N=98) as noted in table 40. The majority watch for information (N=71), with a minority (N=26) watching for pleasure. Both males (N=15) and females (N=56) prefer watching for information rather than pleasure. None of the males, and a minority of females (N=26), watched for pleasure. Only one individual has a television and does not watch. (Table 41)

This confirms patterns reported by Davis, who noted the popularity of television with older adults as a source for news and information, and also noted the popularity of some other types of programming.³⁶² Additional information on the types of television programming popular with the respondents for the past and present time periods is discussed in Appendix E. Crosstabulations of the number of hours daily spent watching television by sex are also noted in Appendix E.

³⁶²Davis, Television and the Aging Audience, 47-49.

Table 41.--Past and present television ownership and reason for watching television, by sex

	TELEVISION OWNERSHIP					
	TOTAL		NO		YES	
	N	%	N	%	N	%
Age range 40-55						
MALE						
DID NOT WATCH	3	3.0	2	2.0	1	1.0
WHAT WAS GOING ON	10	9.9	0	0.0	10	9.9
PLEASURE	3	3.0	0	0.0	3	3.0
FEMALE						
DID NOT WATCH	12	11.9	12	11.9	0	0.0
WHAT WAS GOING ON	43	42.6	0	0.0	43	42.6
PLEASURE	30	29.7	0	0.0	30	29.7
TOTAL	101	100.0	14	13.9	87	86.1
Age range 65+						
MALE						
DO NOT WATCH	1	1.0	1	1.0	0	0.0
WHAT IS GOING ON	15	14.9	0	0.0	15	14.9
PLEASURE	0	0.0	0	0.0	0	0.0
FEMALE						
DO NOT WATCH	3	3.0	2	2.0	1	1.0
WHAT IS GOING ON	56	55.4	0	0.0	56	55.4
PLEASURE	26	25.7	0	0.0	26	25.7
TOTAL	101	100.0	3	3.0	98	97.0

Use of Television as a Proximate Channel of Distribution

For the previous period in respondents' lives (ages 40-55), with a majority (N=87) reporting ownership as noted in table 40, television ranked as one of the most popular

channels of distribution for information (N=85). It was also an important channel of distribution, with almost half the sample (N=49) reporting that it was a "most used" (N=17) or "very often used" (N=32) source. With the next category, "often used," (N=20) added, the number increased (N=69).

For the present period (ages 65 and over), television is owned by more respondents (N=98), as noted in table 40, and is ranked even more often as a channel of distribution (N=97). It has also become an important channel of distribution for a larger portion of the sample. Those citing it as the "most used" source increased substantially (N=60), those citing it as "very often used" source declined (N=20), and the next category, "often used" (N=7), declined from the previous time period; however, when added, the total for those three categories (N=87) is a large part of the total reporting use (N=97). (Table 42)

Crosstabulations of the number of hours daily spent watching television by sex are in Appendix E. Additional information on the types of programming reported by the respondents for each time period is also discussed in Appendix E. Davis cites a number of reasons why television is a popular means for the acquisition of information, and Watson notes a tendency for television viewing to increase with increasing age, while noting a tendency for use to

decrease with increased education.³⁶³

Table 42.--Past and present use of television as a proximate channel of distribution

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED*	16	15.8	3	3.0	13	12.9
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	2	2.0	1	1.0	1	1.0
SOMETIMES USED	5	5.0	0	0.0	5	5.0
FREQUENTLY USED	9	8.9	2	2.0	7	6.9
OFTEN USED	20	19.8	2	2.0	18	17.8
VERY OFTEN USED	32	31.7	6	5.9	26	25.7
MOST USED	17	16.8	2	2.0	15	14.9
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	4	4.0	1	1.0	3	3.0
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	0	0.0	0	0.0	0	0.0
INFREQUENTLY USED	1	1.0	0	0.0	1	1.0
SOMETIMES USED	5	5.0	0	0.0	5	5.0
FREQUENTLY USED	4	4.0	1	1.0	3	3.0
OFTEN USED	7	6.9	1	1.0	6	5.9
VERY OFTEN USED	20	19.8	5	5.0	15	14.9
MOST USED	60	59.4	8	7.9	52	51.5
TOTAL	101	100.0	16	15.8	85	84.2

*Table 40 indicates that 14 in the past and 3 in the present did not own a television; in table 41 for past and present time periods, one owned a television but did not watch; in this table, someone may have owned a television but did not consider it one of the eight most important channels of distribution during the past period.

³⁶³Davis, Television and the Aging Audience, 42; Watson, Leisure Reading Habits, 109.

Being Read To

One method of acquiring information or gaining access to reading materials is to be read to by another. For the previous period in respondents' lives (ages 40-55), being read to was not popular with the respondents; a minority (N=9) used this as a channel of distribution for reading materials. Only one reported it as a "most used" source, and the great majority (N=92) did not use it. When used, being read to was generally given a lower ranking. This was not too surprising, since this method might be more popular with those suffering visual difficulties, which was not the case in this period for the majority of respondents, as noted in table 10.

For the present period in respondents' lives (ages 65 and over), there was no increase in popularity (N=7) for being read to, and this method even suffered a minimal decline. The great majority (N=94) did not use it. The pattern continued in that, when used, being read to was given one of the lower rankings.

Again, this is not surprising, since even though visual difficulties increased, as noted in table 10, so did the number of respondents who were single, primarily through widowhood, as noted in table 2. Therefore, a spouse, one of the most likely individuals to read to another person

Table 43.--Past and present use of being read to

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	92	91.1	13	12.9	79	78.2
LEAST USED	4	4.0	1	1.0	3	3.0
SELDOM USED	2	2.0	1	1.0	1	1.0
INFREQUENTLY USED	0	0.0	0	0.0	0	0.0
SOMETIMES USED	2	2.0	0	0.0	2	2.0
FREQUENTLY USED	0	0.0	0	0.0	0	0.0
OFTEN USED	0	0.0	0	0.0	0	0.0
VERY OFTEN USED	0	0.0	0	0.0	0	0.0
MOST USED	1	1.0	1	1.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	94	93.1	12	11.9	82	81.2
LEAST USED	2	2.0	1	1.0	1	1.0
SELDOM USED	1	1.0	0	0.0	1	1.0
INFREQUENTLY USED	2	2.0	2	2.0	0	0.0
SOMETIMES USED	1	1.0	1	1.0	0	0.0
FREQUENTLY USED	1	1.0	0	0.0	1	1.0
OFTEN USED	0	0.0	0	0.0	0	0.0
VERY OFTEN USED	0	0.0	0	0.0	0	0.0
MOST USED	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2

consistently, was not available to many of the respondents.

(Table 43)

Having Materials Brought by Friends and Relatives

If an individual has limited mobility because of lack of transportation or personal physical reasons, having reading materials brought by friends and relatives may be one way to obtain such materials. For the past period (ages

40-55), this was a popular channel of distribution for reading materials (N=71), although the majority of users (N=62) ranked it from "seldom used" to "sometimes used." Only a few (N=9) ranked having materials brought by friends and relatives as "frequently used" (N=7) or "often used" (N=2), and no one ranked it as "very often used" or "most used."

For the present time period (ages 65 and over), having materials brought by friends and relatives remained a popular channel of distribution with a minimal increase (N=78). However, there were changes in those giving it higher and lower rankings. The greater number (N=59) ranked having materials brought by friends and relatives from "seldom used" to "sometimes used." Several more (N=19) gave it a higher ranking, ranging from "frequently used" (N=12) and "often used" (N=6) to one who ranked it as "very often used." No one ranked having materials brought by friends and relatives as "most used." (Table 44)

Although the emphasis here is on having materials brought to the individual by friends and relatives, the responses indicate that social interaction with friends and relatives plays an important role in the information acquisition process for older adults. Similar importance for social interaction can be noted in table 29, where the emphasis is placed on the ability of the individual to go out for social interaction. The Consumer Research Study on

Reading and Book Purchasing, Watson's Canadian study, Wolf, and Sibold, also noted the importance of social interaction with friends and relatives for information acquisition.³⁶⁴

Table 44.--Past and present use of having materials brought by friends and relatives

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NOT USED	30	29.7	6	5.9	24	23.8
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	29	28.7	4	4.0	25	24.8
INFREQUENTLY USED	21	20.8	5	5.0	16	15.8
SOMETIMES USED	12	11.9	1	1.0	11	10.9
FREQUENTLY USED	7	6.9	0	0.0	7	6.9
OFTEN USED	2	2.0	0	0.0	2	2.0
VERY OFTEN USED	0	0.0	0	0.0	0	0.0
MOST USED	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NOT USED	23	22.8	6	5.9	17	16.8
LEAST USED	0	0.0	0	0.0	0	0.0
SELDOM USED	10	9.9	1	1.0	9	8.9
INFREQUENTLY USED	14	13.9	1	1.0	13	12.9
SOMETIMES USED	35	34.7	5	5.0	30	29.7
FREQUENTLY USED	12	11.9	2	2.0	10	9.9
OFTEN USED	6	5.9	0	0.0	6	5.9
VERY OFTEN USED	1	1.0	1	1.0	0	0.0
MOST USED	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2

³⁶⁴Yankelovich, Skelly, and White, Consumer Research Study, 205; Watson, Leisure Reading Habits, 60; Wolf, "Leisure-Time Reading Behaviors," 49-50; Sibold, "Reading and Televiewing Habits," 61.

Relative Rankings of Proximate Channels of Distribution for Past and Present

Using the total reporting use for each proximate channel of distribution for each time period, it was possible to rank the use of these channels of distribution. The rankings for the past and present could then be compared. The numbers in parentheses are the total number reporting use for the proximate channel of distribution for each time period. The Radio Reading Service was not used in either time period. (Table 45)

Table 45.--Relative rankings of proximate channels of
distribution for past and present

Age range 40-55	Age range 65+
1. Newspaper delivery (99)	1. Postal delivery (100)
2. Postal delivery (98)	2. Television (97)
3. Radio (97)	3. Radio (92)
4. Television (85)	4. Newspaper delivery (85)
5. Personal collection (80)	5. Brought by friends and relatives (78)*
6. Residential collection (78)	6. Personal collection (72)
7. Brought by friends and relatives (71)*	7. Residential collection (56)
8. Being read to (9)	8. Being read to (7)
9. Radio Reading Service (0)	9. Radio Reading Service (0)

*Materials are brought to an individual by friends and relatives

Total Number of Proximate Channels of Distribution Used

For the past period in respondents' lives (ages 40-55), all respondents (N=101) indicated some use of proximate channels of distribution, and used at least two. Most (N=100) used four or more. The majority of those using

proximate channels of distribution (N=96), used five, six, seven or eight.

For the present period (ages 65 and over), all (N=101) continued to use at least two proximate channels of distribution. Most (N=97) used four or more. The majority (N=91) used five, six, seven, or eight. There were slight declines in the higher categories six, seven, and eight. Categories two, three, four and five indicated increases. The pattern for proximate channels of distribution seems to show more stability than the pattern for external channels of distribution, since majorities still use multiple proximate channels of distribution, and use remained relatively stable in the higher categories of the total number of proximate channels used. (Table 46)

Table 46.--Past and present use of the total number of proximate channels of distribution

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
0	0	0.0	0	0.0	0	0.0
1	0	0.0	0	0.0	0	0.0
2	1	1.0	0	0.0	1	2.0
3	0	0.0	0	0.0	0	0.0
4	4	4.0	0	0.0	4	4.0
5	24	23.8	6	5.9	18	17.8
6	30	29.7	5	5.0	25	24.8
7	38	37.6	4	4.0	34	33.7
8	4	4.0	1	1.0	3	3.0
TOTAL	101	100.0	16	15.8	85	84.2

Table 46.--Continued.

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 65+						
0	0	0.0	0	0.0	0	0.0
1	0	0.0	0	0.0	0	0.0
2	2	2.0	0	0.0	2	2.0
3	2	2.0	0	0.0	2	2.0
4	6	5.9	1	1.0	5	5.0
5	31	30.7	8	7.9	23	22.8
6	28	27.7	4	4.0	24	23.8
7	29	28.7	2	2.0	27	26.7
8	3	3.0	1	1.0	2	2.0
TOTAL	101	100.0	16	15.8	85	84.2

Other Proximate Channels of Distribution

Respondents were also asked about the use of some additional methods of access to information--players--for other media, such as records and tapes, for both past and present periods. It was hoped that this would provide data about older adults' preferences for alternative means of access to print. That is, the use of records or tapes either for music or spoken word recordings might indicate a willingness to use them as alternatives to print in case of visual difficulties in later life.

Record Players

Record players seemed to be more popular in the past (ages 40-55) than in the present (ages 65 and over). A

slight majority (N=63) reported having a record player for their personal use in the past, while slightly less than half (N=42) reported having a record player for their personal use in the present. This was true for both males and females. (Table 47)

Table 47.--Past and present access to a record player

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NO	38	37.6	7	6.9	31	30.7
YES	63	62.4	9	8.9	54	53.5
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NO	59	58.4	10	9.9	49	48.5
YES	42	41.6	6	5.9	36	35.6
TOTAL	101	100.0	16	15.8	85	84.2

Tape Recorders

Tape recorders seemed to be less popular with respondents in the past than in the present. A minority (N=20) reported having one in the past. However, in the present, a majority, (N=65) with a significant increase, reported having a tape recorder or cassette player. (Table 48)

Table 48.--Past and present access to a tape recorder

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NO	81	80.2	12	11.9	69	68.3
YES	20	19.8	4	4.0	16	15.8
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NO	36	35.6	3	3.0	33	32.7
YES	65	64.4	13	12.9	52	51.5
TOTAL	101	100.0	16	15.8	85	84.2

Knowledge of Availability of Various Resources by Residence Location

Since, in the present, all the residence locations provided a television for residents in an accessible location, it was decided to explore the respondents' knowledge of various alternatives to personal ownership of television, radio, and a tape recorder or cassette player. The administrator at each residence was asked whether each type of source was available to the residents at that location, and each administrator's knowledge of availability for that location constitutes the correct answer for each source. Appendix B includes a description of most of these sources and their locations in each residence. (Table 49)

Table 49.--Availability of television, radio, and
tape/cassette at residences

	TELEVISION	RADIO	TAPE/CASSETTE
Fairhaven	Yes	Yes	Yes
Heritage Oaks	Yes	Yes	Yes
Good Samaritan	Yes	No	No

Television

Television was available at all the residences, and all respondents with one exception (N=100), were aware that a television was available for their use. This respondent had only recently moved to the residence, and so might not have had time to determine the availability of television. This nearly universal knowledge of availability, however, indicates that television viewing occupies an important position in the lives of older adults. (Table 50)

Radio

A radio was available at Fairhaven and Heritage Oaks, but not at Denton Good Samaritan Village. Overall, respondents were less aware of the availability of a radio. Fairhaven residents were the most well informed, perhaps due to the central location of the radio in the "Library Lounge." Residents at Heritage Oaks were the next most well-informed, although more residents indicated that they did not know that a radio was available (N=29), than did know that a radio was available (N=14). However, no one

incorrectly said that a radio was unavailable, when one was. The radio was located in the manager's office, where all residents would have an opportunity to be aware of it.

Residents at Denton Good Samaritan Village were fairly well informed; only a few (N=3) answered incorrectly, stating that a radio was available when one was not. Again, more respondents indicated that they did not know whether a radio was available (N=18), than knew correctly that a radio was not available (N=13). The radio, although important to older adults, seems to assume a less important position than television in the lives of older adults. (Table 50)

Tape Recorder or Cassette Player/Recorder

A tape recorder or cassette player/recorder was available at Fairhaven and Heritage Oaks, but not at Denton Good Samaritan Village. Residents seemed to be less aware of this source than either television or radio.

Approximately the same number of respondents indicated that they did not know whether a tape recorder or cassette player was available at Fairhaven and Heritage Oaks, as indicated they did not know about the availability of a radio at those residences. The number giving incorrect answers at Fairhaven and Heritage Oaks, stating that a tape recorder or cassette player was not available, when one was available at these residences, increased slightly when compared to those who gave incorrect answers about radio

availability.

Residents at Denton Good Samaritan Village were not as well informed; several (N=10) answered incorrectly, stating that a tape recorder or cassette player was available when one was not. Again, more respondents indicated that they did not know whether a tape recorder or cassette player was available (N=18), than knew correctly that a tape recorder or cassette player was not available (N=6). This type of source seemed to be less important to older adults than either television or radio. (Table 50)

Table 50.--Knowledge of availability of various resources by residence at age 65 and over

	RESIDENCE LOCATION							
	TOTAL		FAIRHAVEN		HERITAGE		SAMARITAN	
	N	%	N	%	N	%	N	%
Age range 65+								
TELEVISION								
DO NOT KNOW	0	0.0	0	0.0	0	0.0	0	0.0
NO	1	1.0	0	0.0	0	0.0	1	1.0
YES	100	99.0	24	23.8	43	42.6	33	32.7
RADIO								
DO NOT KNOW	51	50.5	4	4.0	29	28.7	18	17.8
NO	13	12.9	0	0.0	0	0.0	13	12.9
YES	37	36.6	20	19.8	14	13.9	3	3.0
TAPE/CASSETTE								
DO NOT KNOW	52	51.5	5	5.0	29	28.7	18	17.8
NO	12	11.9	2	2.0	4	4.0	6	5.9
YES	37	36.6	17	16.8	10	9.9	10	9.9

National Library Service for the Blind and Physically Handicapped

Since the sample was chosen from functionally independent older adults, few were expected to have severe visual difficulties, although visual decline as a decrement of "normal" aging, was to be expected, as noted in table 10. However, to allow for the possibility of more serious declines, questions were included on the use of the National Library Service for the Blind and Physically Handicapped (NLSBPH). Since the National Library Service for the Blind and Physically Handicapped is provided through postal delivery, respondents who indicated use (N=3) were included in the answers to table 32.

Table 51.--Past and present use of the National Library Service for the Blind and Physically Handicapped

	SEX					
	TOTAL		MALE		FEMALE	
	N	%	N	%	N	%
Age range 40-55						
NO	101	100.0	16	15.8	85	84.2
YES	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	16	15.8	85	84.2
Age range 65+						
NO	98	97.0	16	15.8	82	81.2
YES	3	3.0	0	0.0	3	3.0
TOTAL	101	100.0	16	15.8	85	84.2

For the previous period in respondents' lives (ages 40-55), no one used the National Library Service for the Blind and Physically Handicapped, either in taped or recorded formats. For the present period in respondents' lives (ages 65 and over), very few (N=3) indicated that they use both tape recorders and record players. (Table 51)

Only a few of the respondents indicating that they had severe visual difficulties used the National Library Service for the Blind and Physically Handicapped. More surprising was the finding that users of the National Library Service for the Blind and Physically Handicapped were among the avid readers, reading more books in the higher categories. In conversation, it was possible to determine that the users of the National Library Service for the Blind and Physically Handicapped considered it a very important source. Conversely, those reporting more severe visual difficulties ("cannot read" or "great deal of difficulty") who did not use the National Library Service for the Blind and Physically Handicapped, either "did not read" or read in the lighter categories of "newspapers and magazines" and "Read 1-3 books." (Table 52)

Although it is not surprising, it can also be seen from table 53 that users of the National Library Service for the Blind and Physically Handicapped in this sample use no external channels of distribution. This probably reflects the visual difficulties of these respondents and the loss of

Table 52.--Level of visual difficulty at age 65 and over,
level of reading activity, and use of the National Library
Service for the Blind and Physically Handicapped

	USE OF THE NLSBPH					
	TOTAL		NO		YES	
	N	%	N	%	N	%
Age range 65+						
CANNOT READ						
DO NOT READ	1	1.0	1	1.0	0	0.0
NEWSPAPERS AND						
MAGAZINES	0	0.0	0	0.0	0	0.0
1-3 BOOKS	0	0.0	0	0.0	0	0.0
4-9 BOOKS	0	0.0	0	0.0	0	0.0
10-25 BOOKS	1	1.0	0	0.0	1	1.0
MORE THAN 25 BOOKS	1	1.0	0	0.0	1	1.0
GREAT DEAL						
DO NOT READ	1	1.0	1	1.0	0	0.0
NEWSPAPERS AND						
MAGAZINES	5	5.0	5	5.0	0	0.0
1-3 BOOKS	1	1.0	1	1.0	0	0.0
4-9 BOOKS	0	0.0	0	0.0	0	0.0
10-25 BOOKS	0	0.0	0	0.0	0	0.0
MORE THAN 25 BOOKS	1	1.0	0	0.0	1	1.0
SOME						
DO NOT READ	0	0.0	0	0.0	0	0.0
NEWSPAPERS AND						
MAGAZINES	6	5.9	6	5.9	0	0.0
1-3 BOOKS	2	2.0	2	2.0	0	0.0
4-9 BOOKS	5	5.0	5	5.0	0	0.0
10-25 BOOKS	2	2.0	2	2.0	0	0.0
MORE THAN 25 BOOKS	0	0.0	0	0.0	0	0.0
A LITTLE						
DO NOT READ	1	1.0	1	1.0	0	0.0
NEWSPAPERS AND						
MAGAZINES	7	6.9	7	6.9	0	0.0
1-3 BOOKS	8	7.9	8	7.9	0	0.0
4-9 BOOKS	5	5.0	5	5.0	0	0.0
10-25 BOOKS	2	2.0	2	2.0	0	0.0
MORE THAN 25 BOOKS	2	2.0	2	2.0	0	0.0

Table 52.--Continued.

	USE OF THE NLSBPH					
	TOTAL		NO		YES	
	N	%	N	%	N	%
NO DIFFICULTY						
DO NOT READ NEWSPAPERS AND MAGAZINES	0	0.0	0	0.0	0	0.0
1-3 BOOKS	16	15.8	16	15.8	0	0.0
4-9 BOOKS	9	8.9	9	8.9	0	0.0
10-25 BOOKS	7	6.9	7	6.9	0	0.0
MORE THAN 25 BOOKS	8	7.9	8	7.9	0	0.0
TOTAL	101	100.0	98	97.0	3	3.0

Table 53.--Use of external channels of distribution at age 65 and over and use of record players and tape recorders from the National Library Service for the Blind and Physically Handicapped

	USE OF THE NLSBPH					
	TOTAL		NO		YES	
	N	%	N	%	N	%
0	24	23.8	21	20.8	3	3.0
1	24	23.8	24	23.8	0	0.0
2	25	24.8	25	24.8	0	0.0
3	15	14.9	15	14.9	0	0.0
4	9	8.9	9	8.9	0	0.0
5	3	3.0	3	3.0	0	0.0
6	1	1.0	1	1.0	0	0.0
7	0	0.0	0	0.0	0	0.0
8	0	0.0	0	0.0	0	0.0
TOTAL	101	100.0	98	97.0	3	3.0

the threshold visual ability needed to utilize print. These severe visual difficulties diminish the necessity for utilizing external channels of distribution where print can be obtained and also result in a loss of access to flexible means of transportation, such as a personal car.

Summary

This chapter presented a summary of responses to the interview questions. Where appropriate, confirmatory results from other studies were noted. From this general description, a reader should have an overview of the variables that were used in the hypothesis testing section of this study, to be reported in the next chapter.

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CHAPTER 5

TESTING OF HYPOTHESES

In this section, the four hypotheses proposed for this study will be tested. Each hypothesis will be stated, the method of analysis reviewed, and the results of analysis displayed. Specific factors influencing the outcome of each analysis will be discussed.

Hypothesis One

H₁ As health, environmental, and economic constraints increase, there will be a decrease in use of information sources that require movement outside the home.

Hypothesis 1 was analyzed by using the following procedure:

Health Constraints: Responses to questions on the interview schedule about past conditions (#14, with a possible score of 1-5 and #15, #16, and #17, each with a possible score of 0-4) were subtracted from questions about present conditions (#40, with a possible score of 1-5 and #41, #42, and #43 each with a possible score of 0-4). These four values were then added together to provide a composite value for "differences in health constraints." For example, a person who reported that from ages forty to fifty-five general health was very good, that newspaper-size print was

read with no difficulty, that everyday conversations were heard with no difficulty, and who could move around to perform everyday activities with no difficulty would have a score of 17 for past health constraints. If the same person reported that at present general health was very poor, that newspaper-size print could not be read at all, that everyday conversations could not be heard at all, and that moving around to perform everyday activities could not be accomplished at all, the present score for health constraints would be 1. The past score subtracted from the present would produce the value of -16 for "differences in health constraints." Obviously, a person who reported better health conditions now than in the past, would have a positive score, up to a possible (but unlikely) high of +16.

Environmental Constraints: Those constraints that affect access to modes of transportation and ownership (or access to) radio and television are considered to be environmental. Again, answers for past conditions were subtracted from answers for present conditions. The response to question #13 was used to assign points to question #12 (highest possible score: 5). In the same way, #39 was used to assign points to #38. Responses to past questions about television ownership (#3 and #27) and radio ownership (#6 and #31) were treated the same way as scores for health constraints, with past responses subtracted from the present. After all the subtractions were made, the

values were added together to obtain a composite value for "differences in environmental constraints." A person who had easiest access to the most-favored mode of transportation and also owned a radio and television would present the highest scores for past environmental constraints and would have a possible value of +7 for past conditions. If that person no longer had access to any of these, the present composite score would be 0. The difference would be -7, the lowest possible value for this variable. In a similar way, the highest possible value would be +7 for a person who had no access in the past and now has easy access to everything.

Economic Constraints: This variable was measured by a question for the past (#18) and questions #44, #45, and #46 for the present. The response for question #18 was subtracted from the response for #44. The final score was obtained by adding the result of questions #45 and #46 to that difference.

Channels of Distribution: The channels of distribution that were analyzed in terms of use were grouped according to whether they were centralized-external channels which required movement outside the residence or were decentralized-proximate channels which were located at the residence or were delivered directly to the residence by some method.

Channels of Distribution

External	Proximate
Bookstore	Postal delivery
Newsstand	Newspaper delivery
Department store	Brought by friend/relative
Discount store	Personal collection
Grocery store	Residential collection
Garage sale/Flea market	Radio
Public library	Radio Reading Service
Academic library	Television
Church library	Item read to individual
Borrowed by individual	

External Channels of Distribution

For Hypothesis 1, the questions on the interview schedule listing external channels of distribution (#23 and #52) were used. To determine the value of the dependent variable, respondents were asked to rank the eight most-used channels of distribution for reading materials or information sources in that category. Two methods were used to compute the dependent variable.

Method 1

For Hypothesis 1, the dependent variable was measured in two ways. The first method, using the dependent variable EXT, involved adding the rankings for all the external channels of distribution listed in #23 for the past period and #52 for the present. The total of the rankings for the past was subtracted from the total for the present. If an individual used 8 external channels of distribution in the

past, with a total of 36 and 8 in the present, with the same total, the difference would be 0. However, if an individual used 8 external channels of distribution in the past, with a total of 36 and 0 in the present, the total would be -36. Conversely, in the possible (but unlikely) event that an individual had used no external channels of distribution in the past with a score of 0, but had increased use to 8 channels in the present with a score of 36, the change from past to present would be +36.

Method 2

For Hypothesis 1, the second way of looking at the dependent variable, (called TOTEXT in this case), was to measure it by taking the total number of external channels of distribution reported used for question #23 for the past period and question #52 for the present. The total number for the past was subtracted from the total number for the present. If an individual used 8 external channels of distribution in the past and 8 in the present, the difference would be 0. However, if an individual used 8 external channels of distribution in the past, and 0 in the present, the total score there would be -8. Conversely, in the possible (but unlikely) event that an individual had used no external channels of distribution in the past, but had increased use to 8 channels in the present, the change from past to present would be +8.

Multiple regression was used, with the score for "channels of distribution that require movement outside the home" representing Y (possible range: -36 to +36 (EXT) or -8 to +8 (TOTEXT); the score for differences between past and present health constraints" representing X1 (possible range: -16 to +17); the score for "differences between past and present environmental constraints" representing X2 (possible range: -7 to +7); and the score for "differences between past and present economic constraints" representing X3 (possible range: -1 to +11).

Analysis of Hypothesis 1 by Method 1

Three composite variables, HEALTH, the difference for the past and present values of scores of general health, vision, hearing, and mobility added together; ENVIR, the difference for the past and present values for the scores of the ranking for transportation convenience, access to a television, and access to a radio added together; and ECON, the difference for the past and present values for the score for income satisfaction, added to the score for book purchasing and the importance of price, were used to predict the dependent variable, EXT, the difference for the rankings for the total number of external channels of distribution used in the past and present added together. As previously mentioned, when a respondent indicated use of an external channel of distribution, the channel was ranked, with 8 for

a most-used channel, 7 for the channel ranked next, and so on, until the respondent ranked all of the channels used. The rankings were added (8 + 7 etc.) to compute the score for EXT. This gave a range of -36 to +36 for the dependent variable EXT.

The means and standard deviations are given in table 54. HEALTH, the composite variable, has a negative value. General health (Table 9), vision (Table 10), hearing (Table 12), and mobility (Table 13), all declined from the past (ages 40-55) to the present (ages 65 and over). ENVIR, another composite variable, also has a negative value. There was a loss in flexibility of transportation access (Table 14), although radio ownership (Table 36) and television ownership (Table 40) remained relatively constant from the past period to the present.

ECON, the final composite variable, has a positive value. From the past period (ages 40-55) to the present (ages 65 and over), income satisfaction (Table 16) has increased. Despite this, a majority (Table 17) indicate that they purchase books less frequently or about the same as in the past. There was an even division on the importance of price (Table 18). Finally, the use of external channels of distribution (Table 31) declined considerably from the past to the present.

Table 54.--Means and standard deviations for variables
HEALTH, ENVIR, ECON, and EXT

	Mean	Std Dev
HEALTH	-2.822	3.545
ENVIR	-.218	.856
ECON	5.475	5.707
EXT	-11.673	15.837
N of Cases = 101		

The correlations for this equation are presented in table 55. As noted, the negative correlation of HEALTH with the dependent variable EXT (-.2765) is significant at $p < .01$. No other significant correlations are observed.

Table 55.--Correlations for variables HEALTH, ENVIR, ECON,
and EXT

Correlations:	HEALTH	ENVIR	ECON
HEALTH			
ENVIR	.1947		
ECON	.0095	.0474	
EXT	-.2765*	-.1388	.1288
N of cases: 101			

* $p < .01$

The statistics for the regression equation are noted in table 56. The multiple R for this equation, .74199, is close to 1, indicating that the correlation coefficient for the predicted and observed values of the equation is high. The R^2 is .55055, indicating that a little more than half of the variation in the dependent variable can be explained by

the three independent variables. The adjusted R^2 is .53679, indicating that when R^2 is adjusted for the sample values, the equation still explains over half of the variability in the dependent variable.³⁶⁵

The regression mean square, 4648.67352, is much larger than the residual mean square, 116.17326, indicating that there is a linear relationship among the independent variables and the dependent variable. The F-value for the equation is 40.01500 and the observed significance level is less than .00005, indicating that Hypothesis 1 is supported.³⁶⁶

The regression coefficients, the standard error for the sampling distribution, the F-value, and the significance level for each F-value, are given in table 56 for each of the independent variables.³⁶⁷ Using the significance levels for the F-values, it would seem that HEALTH and ECON contribute more to the predictive value of the equation than does ENVIR. On the whole, however, Hypothesis 1 is supported.

³⁶⁵Marija J. Norusis, "Testing Regression Hypotheses," chap. in The SPSS Guide to Data Analysis (Chicago, Ill.: SPSS, 1986), 344, 346.

³⁶⁶Ibid., 345.

³⁶⁷Ibid., 341-345.

Table 56.--Regression statistics for HEALTH, ENVIR, ECON, and EXT

Multiple R	.74199			
R Square	.55055			
Adjusted R Square	.53679			
Standard Error	10.77837			
<hr/>				
Analysis of Variance	DF	Sum of Squares	Mean Square	
Regression	3	13946.02056	4648.67352	
Residual	98	11384.97944	116.17326	
F = 40.01500				
Signif F = .0000				
<hr/>				
Variable	Coefficient	Standard Error	F	Sig F
ECON	-1.00667	.28515	12.464	.0006
ENVIR	.86832	1.32358	.430	.5133
HEALTH	1.84361	.46491	15.725	.0001

Analysis of Hypothesis 1 by Method 2

For Hypothesis 1, this analysis is concerned with the predictive value of three composite variables: HEALTH, the difference for the past and present values of scores of general health, vision, hearing, and mobility added together; ENVIR, the difference for the past and present values for the scores of the ranking for transportation convenience, access to a television, and access to a radio, added together; and ECON, the difference for the past and present values for the score for income satisfaction, added to the score for book purchasing and the importance of price. These variables were used to predict the dependent variable, TOTEXT, the difference for the total number of

external channels of distribution used in the past and present. As previously mentioned, an alternative method for computing the dependent variable was simply to count the number of external channels of distribution used; each channel of distribution counted as 1. This gave a range of -8 to +8 for the dependent variable TOTEXT.

The means and standard deviations are in table 57. HEALTH, the composite variable, has a negative value. General health (Table 9), vision (Table 10), hearing (Table 12), and mobility (Table 13), all declined from the past (ages 40-55) to the present (ages 65 and over). ENVIR, another composite variable, also has a negative value. There was a loss in flexibility of transportation access (Table 14), although radio ownership (Table 36) and television ownership (Table 40) remained relatively constant from the past period to the present.

ECON, the final composite variable, has a positive value. From the past period (ages 40-55) to the present (ages 65 and over), income satisfaction (Table 16) has increased. Despite this, a majority (Table 17) indicate that they purchase books less frequently or about the same as in the past. There was an even division on the importance of price (Table 18). Finally, the use of external channels of distribution (Table 31) declined considerably from the past to the present.

Table 57.--Means and standard deviations for HEALTH, ENVIR, ECON, and TOTEXT

	Mean	Std Dev
HEALTH	-2.822	3.545
ENVIR	-.218	.856
ECON	5.475	5.707
TOTEXT	-2.248	3.020
N of Cases = 101		

The correlations for the variables are reported in table 58. None of the variables is significantly correlated at the $p < .01$ level, using TOTEXT as the dependent variable.

Table 58.--Correlations for variables HEALTH, ENVIR, ECON, and TOTEXT

Correlations:	HEALTH	ENVIR	ECON
HEALTH			
ENVIR	.1947		
ECON	.0095	.0474	
TOTEXT	.1887	.1278	-.0706
N of cases:	101		

The statistics for the regression equation are reported in table 59. The multiple R for this equation, .73687, is close to 1, indicating that the correlation coefficient for the predicted and observed values of the equation is high. The R^2 is .54298, indicating that over half of the variation in the dependent variable can be explained by the three

independent variables. The adjusted R^2 is .52899, indicating that, when R^2 is adjusted for the sample values, the equation still explains over half of the variability in the dependent variable.³⁶⁸

The regression mean square, 166.69483, is much larger than the residual mean square, 4.29506, indicating that there is a linear relationship among the independent variables and the dependent variable. The F-value for the equation is 38.81086, and the observed significance level is less than .00005, indicating that Hypothesis 1 is supported.³⁶⁹

The regression coefficients, the standard error for the sampling distribution, the F-value, and the significance level for each F-value, are given in table 59 for each of the independent variables.³⁷⁰ Using the significance levels for the F-values, it would seem that ECON contributes more significantly to the predictive value of the equation than does ENVIR, while HEALTH also contributes somewhat. On the whole, however, Hypothesis 1 is also supported by this method of analysis.

³⁶⁸Ibid., 344, 346.

³⁶⁹Ibid., 345.

³⁷⁰Ibid., 341-345.

Table 59.--Regression statistics for HEALTH, ENVIR, ECON, and TOTEXT

Multiple R	.73687			
R Square	.54298			
Adjusted R Square	.52899			
Standard Error	2.07245			
<hr/>				
Analysis of Variance	DF	Sum of Squares	Mean Square	
Regression	3	500.08449	166.69483	
Residual	98	420.91551	4.29506	
<hr/>				
F =	38.81086			
Signif F =	.0000			
<hr/>				
Variable	Coefficient	Standard Error	F	Sig F
ECON	-.24311	.05483	19.661	.0000
ENVIR	.16423	.25450	.416	.5202
HEALTH	.26331	.08939	8.677	.0040

Hypothesis 2

H₀2 As health, environmental, and economic constraints increase, there will be no decrease in use of information sources that are delivered to the home.

Hypothesis 2 was tested by the following procedure:

Health Constraints: Responses to questions on the interview schedule about past conditions (#14, with a possible score of 1-5 and #15, #16, and #17, each with a possible score of 0-4) were subtracted from questions about present conditions (#40, with a possible score of 1-5 and #41, #42, and #43 each with a possible score of 0-4). These four values were then added together to provide a composite value for "differences in health constraints." For example,

a person who reported that from ages forty to fifty-five general health was very good, that newspaper-size print was read with no difficulty, that everyday conversations were heard with no difficulty, and who could move around to perform everyday activities with no difficulty would have a score of 17 for past health constraints. If the same person reported that at present general health was very poor and that newspaper-size print could not be read at all, that everyday conversations could not be heard at all, and that moving around to perform everyday activities could not be accomplished at all, the present score for health constraints would be 1. The past score subtracted from the present would produce the value of -16 for "differences in health constraints." Obviously, a person who reported better health conditions now than in the past, would have a positive score, up to a possible (but unlikely) high of +16.

Environmental Constraints: Those constraints that affect access to modes of transportation and ownership (or access to) radio and television are considered to be environmental. Again, answers for past conditions were subtracted from answers for present conditions. The response to question #13 was used to assign points to question #12 (highest possible score: 5). In the same way, #39 was used to assign points to #38. Responses to past questions about television ownership (#3 and #27) and radio ownership (#6 and #31) were treated the same way as scores

for health constraints, with past responses subtracted from the present. After all the subtractions were made, the values were added together to obtain a composite value for "differences in environmental constraints." A person who had easiest access to the most-favored mode of transportation and also owned a radio and television would present the highest scores for past environmental constraints and would have a possible value of +7 for past conditions. If that person no longer had access to any of these, the present composite score would be 0. The difference would be -7, the lowest possible value for this variable. In a similar way, the highest possible value would be +7 for a person who had no access in the past and now has easy access to everything.

Economic Constraints: This variable was measured by a question for the past (#18) and questions #44, #45, and #46 for the present. The response for question #18 was subtracted from the response for #44. The final score was obtained by adding the result of questions #45 and #46 to that difference.

Channels of Distribution: The channels of distribution that were analyzed in terms of use were grouped according to whether they were centralized-external channels which required movement outside the residence or were decentralized-proximate channels which were located at the resi-

dence or were delivered directly to the residence by some method.

Channels of Distribution

External	Proximate
Bookstore	Postal delivery
Newsstand	Newspaper delivery
Department store	Brought by friend/relative
Discount store	Personal collection
Grocery store	Residential collection
Garage sale/Flea market	Radio
Public library	Radio Reading Service
Academic library	Television
Church library	Item read to individual
Borrowed by individual	

Proximate Channels of Distribution

For Hypothesis 2, the questions on the interview schedule listing proximate channels of distribution (#24 and #53) were used. To determine the value of the dependent variable, respondents were asked to rank the eight most-used channels of distribution or information sources in that category. Two methods were used to compute the dependent variable.

Method 1

For Hypothesis 2, the dependent variable was measured in two ways. The first method, using the dependent variable PROX, involved adding the rankings for all the proximate channels of distribution listed in #24 for the past period and #53 for the present. The total of the rankings for the

past was subtracted from the total for the present. If an individual used 8 proximate channels of distribution in the past, with a total of 36 and 8 in the present, with the same total, the difference would be 0. However, if an individual used 8 proximate channels of distribution in the past, with a total of 36 and 0 in the present, the total would be -36. Conversely, in the possible (but unlikely) event that an individual had used no proximate channels of distribution in the past with a score of 0, but had increased use to 8 channels in the present with a score of 36, the change from past to present would be +36.

Method 2

For Hypothesis 2, the second way of looking at the dependent variable, (called TOTPROX in this case), was to measure it by taking the total number of proximate channels of distribution reported used for question #24 for the past period and question #53 for the present. The total number for the past was subtracted from the total number for the present. If an individual used 8 proximate channels of distribution in the past and 8 in the present, the difference would be 0. However, if an individual used 8 proximate channels of distribution in the past, and 0 in the present, the total score there would be -8. Conversely, in the possible (but unlikely) event that an individual had used no proximate channels of distribution in the past, but

had increased use to 8 channels in the present, the change from past to present would be +8.

Multiple regression was used, with the score for "channels of distribution that are delivered to the home" representing Y (possible range: -36 to +36 (PROX) or -8 to +8 (TOTPROX)); the score for differences between past and present health constraints" representing X1 (possible range: -16 to +17); the score for "differences between past and present environmental constraints" representing X2 (possible range: -7 to +7); and the score for "differences between past and present economic constraints" representing X3 (possible range: -1 to +11).

Analysis of Hypothesis 2 by Method 1

Hypothesis 2 is concerned with the predictive value of three composite variables: HEALTH, the difference for the past and present values of scores of general health, vision, hearing, and mobility added together; ENVIR, the difference for the past and present values for the scores of the ranking for transportation convenience, access to a television, and access to a radio added together; and ECON, the difference for the past and present values for the score for income satisfaction, added to the scores for book purchasing and the importance of price.

These variables (HEALTH, ENVIR, and ECON) were used to predict the dependent variable, PROX, the difference for the

rankings for the total number of proximate sources used in the past and present added together. As previously mentioned, when a respondent indicated use of a proximate channel of distribution, the channel was ranked, with 8 for a most-used channel, 7 for the channel ranked next, and so on, until the respondent ranked all of the channels used. The rankings were added (8 + 7 etc.) to compute the score for PROX. This gave a range of -36 to +36 for the dependent variable PROX.

Means and standard deviations are reported in table 60. HEALTH, the composite variable, has a negative value. General health (Table 9), vision (Table 10), hearing (Table 12), and mobility (Table 13), all declined from the past (ages 40-55) to the present (ages 65 and over). ENVIR, another composite variable, also has a negative value. There was a loss in flexibility of transportation access (Table 14), although radio ownership (Table 36) and television ownership (Table 40) remained relatively constant from the past period to the present.

ECON, the final composite variable, has a positive value. From the past period (ages 40-55) to the present (ages 65 and over), income satisfaction (Table 16) has increased. Despite this, a majority (Table 17) indicate that they purchase books less frequently or about the same as in the past. There was an even division on the importance of price (Table 18). PROX has a negative value.

As indicated in table 46, the use of proximate channels of distribution remained relatively constant, with only a marginal decline.

Table 60.--Means and standard deviations for variables HEALTH, ENVIR, ECON, and PROX

	Mean	Std Dev
HEALTH	-2.822	3.545
ENVIR	-.218	.856
ECON	5.475	5.707
PROX	-1.030	4.735
N of Cases = 101		

The correlations are given in table 61. As can be seen, ENVIR and the dependent variable PROX are negatively correlated (-.2494) at the $p < .01$ level.

Table 61.--Correlations for variables HEALTH, ENVIR, ECON, and PROX

Correlations:	HEALTH	ENVIR	ECON
HEALTH			
ENVIR	.1947		
ECON	.0095	.0474	
PROX	-.0704	-.2494*	-.0193
N of cases: 101			

* $p < .01$

The statistics for the regression equation are given in table 62. The multiple R for this equation, .31850, is not very close to 1, indicating that the correlation coefficient

for the predicted and observed values of the equation is not particularly high. The R^2 is .10144, indicating that a little more than 10 percent of the variation in the dependent variable can be explained by the three independent variables. The adjusted R_2 is .07393, indicating that, when R^2 is adjusted for the sample values, the equation still explains very little of the variability in the dependent variable.³⁷¹

The regression mean square, 76.55355, is larger than the residual mean square, 20.75856, indicating that there may be a linear relationship among the independent variables and the dependent variable. However, the F-value for the equation is 3.68781, and the observed significance level, .0145, is larger than .00005, indicating that there is no demonstrable linear relationship.³⁷²

The regression coefficients, the standard error for the sampling distribution, the F-values, and the significance level for each F-value, are given in table 62 for each of the independent variables.³⁷³ Using the significance levels for the F-values, it would seem that none of the variables contribute appreciably to the predictive value of the equation. However, the F-value of ENVIR is much smaller

³⁷¹Ibid., 344, 346.

³⁷²Ibid., 345.

³⁷³Ibid., 341-345.

than the others, and so may contribute slightly to the overall value.

On the whole, however, the hypothesis is supported, since, essentially, the following null or research hypothesis for Hypothesis 2 is only a restatement of the original hypothesis:

There is no difference in the use of information sources that are delivered to the home as health, environmental, and economic constraints increase.

Therefore, the original hypothesis predicted the absence of a linear relationship.

Table 62.--Regression statistics for variables HEALTH, ENVIR, ECON, and PROX

Multiple R	.31850			
R Square	.10144			
Adjusted R Square	.07393			
Standard Error	4.55616			
<hr/>				
Analysis of Variance	DF	Sum of Squares	Mean Square	
Regression	3	229.66065	76.55355	
Residual	98	2034.33935	20.75856	
F =	3.68781			
Signif F =	.0145			
<hr/>				
Variable	Coefficient	Standard Error	F	Sig F
ECON	-.01676	.12053	.019	.8897
ENVIR	1.36434	.55950	5.946	.0165
HEALTH	.16229	.19652	.682	.4109

Analysis of Hypothesis 2 by Method 2

Hypothesis 2 is concerned with the predictive value of three composite variables: HEALTH, the difference for the

past and present values of scores of general health, vision, hearing, and mobility added together; ENVIR, the difference for the past and present values for the scores of the ranking for transportation convenience, access to a television, and access to a radio added together; and ECON, the difference for the past and present values for the score for income satisfaction, added to the scores for book purchasing and the importance of price. These variables were used to predict the dependent variable, TOTPROX, the difference for the total number of proximate sources used in the past and present. As previously mentioned, an alternative method for computing the dependent variable was simply to count the number of proximate channels of distribution used; each channel of distribution counted as 1. This gave a range of -8 to +8 for the dependent variable TOTPROX.

The means and standard deviations are reported in table 63. HEALTH, the composite variable, has a negative value. General health (Table 9), vision (Table 10), hearing (Table 12), and mobility (Table 13), all declined from the past (ages 40-55) to the present (ages 65 and over). ENVIR, another composite variable, also has a negative value. There was a loss in flexibility of transportation access (Table 14), although radio ownership (Table 36) and television ownership (Table 40) remained relatively constant from the past period to the present.

ECON, the final composite variable, has a positive value. From the past period (ages 40-55) to the present (ages 65 and over), income satisfaction (Table 16) has increased. Despite this, a majority (Table 17) indicate that they purchase books less frequently or about the same as in the past. There was an even division on the importance of price (Table 18). TOTPROX also has a negative value. As indicated in table 46, the use of proximate channels of distribution remained relatively constant, with only a marginal decline.

Table 63.--Means and standard deviations for variables
HEALTH, ENVIR, ECON, and TOTPROX

	Mean	Std Dev
HEALTH	-2.822	3.545
ENVIR	-.218	.856
ECON	5.475	5.707
TOTPROX	-.317	1.442
N of Cases = 101		

The correlations are in table 64. As can be seen, none of the independent variables are significantly correlated with the dependent variable TOTPROX.

The statistics for the regression equation are given in table 65. The multiple R for this equation, .28429, is not very close to 1, indicating that the correlation coefficient for the predicted and observed values of the equation is not particularly high. The R^2 is .08082, indicating that less

Table 64.--Correlations for variables HEALTH, ENVIR, ECON, and TOTPROX

	HEALTH	ENVIR	ECON
HEALTH			
ENVIR	.1947		
ECON	.0095	.0474	
TOTPROX	.0712	.1958	.0612
N of cases:	101		

than 10 percent of the variation in the dependent variable can be explained by the three independent variables. The adjusted R^2 is .05268, indicating that when R^2 is adjusted for the sample values, the equation still explains very little of the variability in the dependent variable.³⁷⁴

The regression mean square, 5.65756, is only slightly larger than the residual mean square, 1.96967, indicating that there is not likely to be a linear relationship among the independent variables and the dependent variable. The F-value for the equation is 2.87234, and the observed significance level, .0402, is larger than .00005.³⁷⁵

The regression coefficients, the standard error for the sampling distribution, the F-value, and the significance level for each F-value, are given in table 65 for each of the independent variables.³⁷⁶ Using the significance levels

³⁷⁴Ibid., 344, 346.

³⁷⁵Ibid., 345.

³⁷⁶Ibid., 341-345.

for the F-values, it would seem that none of the variables contributes appreciably to the predictive value of the equation. However, the F-value of ENVIR is much smaller than the others, and so may contribute slightly to the overall value.

On the whole, however, the hypothesis is supported, since, essentially, the following null or research hypothesis for Hypothesis 2 is only a restatement of the original hypothesis:

There is no difference in the use of information sources that are delivered to the home as health, environmental, and economic constraints increase.

Therefore, the original hypothesis predicted the absence of a linear relationship.

Table 65.--Regression statistics for variables HEALTH, ENVIR, ECON, and TOTPROX

Multiple R	.28429			
R Square	.08082			
Adjusted R Square	.05268			
Standard Error	1.40345			
<hr/>				
Analysis of Variance	DF	Sum of Squares	Mean Square	
Regression	3	16.97268	5.65756	
Residual	98	193.02732	1.96967	
F =	2.87234			
Signif F =	.0402			
<hr/>				
Variable	Coefficient	Standard Error	F	Sig F
ECON	-.01138	.03713	.094	.7599
ENVIR	.31860	.17234	3.418	.0675
HEALTH	.05015	.06054	.686	.4094

Hypothesis 3

H₃ Among older adults who identified pleasure as their primary motivation for reading earlier in life, health, environmental, and economic constraints will show a greater effect on present use of information sources than for the group who identified information as their primary motivation.

A variety of statistical tests were used to analyze Hypothesis 3. The t-test, regression analysis, and analysis of variance were used.

Analysis of Hypothesis 3 by T-Test

The sample was divided into two groups on the basis of answers to question #2, which could be answered by responding affirmatively to "Did you usually read mainly for information in daily life?", which was recorded as value 1 (information), or "Did you usually read because you enjoyed reading?", which was recorded as value 2 (pleasure). The variable name used in SPSS for question 2 was RSNA. The two groups were compared, using the t-test, on differences in health, environmental, and economic constraints, which were the variables HEALTH, ENVIR, and ECON originally computed for Hypotheses 1 and 2.

Analysis of Hypothesis 3 by Regression

Second, multiple regression using the present health scores (#40, #41, #42, #43) added together, environmental

scores (#27, #31, #38) added together, and economic scores (#44, #45, #46) added together, was performed in order to estimate the change in reading score (the difference between the answer to #1 subtracted from the answer to #25. The present health scores added together formed composite variable HEALTH2 with a possible range of +3 to +17; the present environmental scores added together formed composite variable ENVIR2 with a possible range of +3 to +9; and the present economic scores added together formed composite variable ECON2 with a possible range of +3 to +13. HEALTH2, ENVIR2, and ECON2 as independent variables were used to predict dependent variable READ, with a possible range of -5 to +5, and with the sample divided on the basis of answers to question #2.

In a similar way, regression using HEALTH2, ENVIR2, and ECON2 as the independent variables was used to try to explain the change in hours of television viewing (#5 and #30)--that variable was named TVHRS, while the sample was divided on the basis of answers to question #4. Likewise, regression using the same independent variables (HEALTH2, ENVIR2, and ECON2) was used to try to explain the change in hours of radio listening (#8 and #34)--with the variable named RHRS, while the sample was divided on the basis of answers to question #7. Variable RHRS was computed by converting the responses for all those who answered that they listened to the radio less than fifteen minutes a day

to a response equalling ten minutes, and adding those cases to the remaining cases.³⁷⁷

Analysis of Hypothesis 3 by Analysis of Variance

In addition, the sample was divided into three parts on the basis of answers to questions #2 and #26. The first subgroup was those who had the same purpose for reading as in the past, the second group was those who had shifted from information to pleasure, and the third was those who had shifted from pleasure to information. These three subgroups were compared on differences in health constraints, environmental constraints, economic constraints, and educational level, using the variables HEALTH, ENVIR, and ECON computed in the same way as they were for Hypothesis 1 and 2.

Reading Activity Level

Analysis of Hypothesis 3 by T-Test

Using the t-test, the respondents were divided into two groups on the basis of their responses to question 2: group 1 (N=6) consisted of those who responded that their basic purpose for reading earlier in life was for information, only out of necessity (value 1); group 2 (N=95) consisted of those who responded that their basic purpose for reading earlier in life was pleasure, because reading was regarded

³⁷⁷Marija J. Norusis, "Data Transformations," chap. in SPSSPC+ V2.0 Base Manual for the IBM PC/XT/AT and PS/2. Chicago: SPSS, 1988), B-28.

as a pleasurable activity (value 2). The results of this test are in table 66.

The two groups were then compared for the variables of HEALTH, ENVIR, and ECON. Since the two groups were unequal in number, a test for homogeneity of variance was performed. For variable HEALTH, the F-value was 1.74, and the two-tailed probability was .560. For variable ENVIR, the F-value was 2.06, and the two-tailed probability was .155. For variable ECON, the F-value was 1.84, and the two-tailed probability was .514.

For variable HEALTH, the probability for the t value in the pooled variance estimate, .076, indicates that the variable may contribute to a difference between the means of the two groups.³⁷⁸ Since the groups are numerically unequal, application of the test under conditions where the groups are more nearly equal in number may yield a more precise indication of significance.

For variable ENVIR, the F-value, 2.06, was not close to 1, and its two-tailed probability, .155, was rather small, so the t -value (.11) and two-tailed probability (.915) for the separate variance estimate was used, rather than the pooled variance estimate.³⁷⁹ For variable ECON, the

³⁷⁸Marija J. Norusis, "Testing Hypotheses about Two Independent Means," chap. in The SPSS Guide to Data Analysis, (Chicago, Ill.: SPSS, 1986), 201.

³⁷⁹Ibid., 203.

probability level of the t-value in the pooled variance estimate, $-.22$, was very high, and indicates that the variable makes little contribution. Further, the probability level for the t-value ($.826$) confirms this. Overall, Hypothesis 3 is not supported by this test.

Table 66.--t-test for comparison of two groups according to reason for reading for variables HEALTH, ENVIR, and ECON

	Groups					
	Information = 1 (N=6)		Pleasure = 2 (N=95)		t	p
	m	sd	m	sd		
HEALTH	-4.3333	1.633	-2.7263	2.156	-1.79	.076*!
ENVIR	-.1667	1.169	-.2211	.814	.11	.915!!
ECON	5.3333	1.211	5.4842	1.643	-.22	.826!

*p < .08

! pooled variance estimate

!! separate variance estimate

Analysis of Hypothesis 3 by Regression

Hypothesis 3 is concerned with the predictive value of three composite variables, the present scores for HEALTH, ENVIR, and ECON. These were named HEALTH2, ENVIR2, and ECON2 to indicate that they represented only the present (or second time period studied). These variables were used to predict the dependent variable, READ, the difference for the level of reading activity in the past and present, after the sample was divided into two groups on the basis of their answers to question 2. For question 2, respondents were to

answer affirmatively to one the following reasons for reading: "Did you usually read mainly for information necessary in daily life?", (value 1 = information), or "Did you usually read because you enjoyed reading?", (value 2=pleasure). The value used for this equation was RSNA = 1 (information), consisting of only 6 cases.

Means and standard deviations are reported in table 67. The three composite variables used as predictors (HEALTH2, ENVIR2, and ECON2) have positive values. READ, the dependent variable, also has a positive value.

Table 67.--Means and standard deviations for variables HEALTH2, ENVIR2, ECON2, and READ, selected for RSNA = 1

	Mean	Std Dev
HEALTH2	12.500	12.576
ENVIR2	8.333	8.367
ECON2	7.667	7.767
READ	.333	1.000
N of Cases = 6		

The correlations are in table 68. As can be noted, none of the correlations are significant. However, HEALTH2 and ENVIR2 have a negative correlation (-.4845), ENVIR2 and ECON2 are negatively correlated (-.7769), and ECON2 and READ are negatively correlated (-.2362).

The statistics for the regression equation are given in table 69. For this equation, the variable for question 2 was the answer RSNA = 1, information, meaning that reading

Table 68.--Correlations for variables HEALTH2, ENVIR2, ECON2, and READ, selected for RSNA = 1

	HEALTH2	ENVIR2	ECON2
HEALTH2			
ENVIR2	-.4845		
ECON2	.3861	-.7769	
READ	.5108	.3953	-.2362
N of cases:	6		

was undertaken only out of necessity, consisting of only 6 cases. The multiple R for this equation, .66415, is relatively close to 1, indicating that the correlation coefficient for the predicted and observed values of the equation is high. The R^2 is .44109, indicating that over 40 percent of the variation in the dependent variable can be explained by the three independent variables. However, the adjusted R_2 is -.11782, indicating that, when R^2 is adjusted for the sample values, the equation explains only a little over ten percent of the variability in the dependent variable.³⁸⁰

The regression mean square, .88218, is smaller than the residual mean square, 1.11782, indicating that there is not likely to be a linear relationship among the independent variables and the dependent variable. The F-value for the equation is .78920, and the observed significance level,

³⁸⁰Norusis, "Testing Regression Hypotheses," 344, 346.

.5748, is larger than .00005.³⁸¹

The regression coefficients, the standard error for the sampling distribution, the F-value, and the significance level for each F-value, are given in table 69 for each of the independent variables.³⁸² Using the significance levels for the F-values, it would seem that none of the variables contribute appreciably to the predictive value of the equation.

Table 69.--Regression statistics for HEALTH2, ENVIR2, ECON2, and READ, selected for RSNA = 1

Multiple R	.66415			
R Square	.44109			
Adjusted R Square	-.11782			
Standard Error	1.05727			
Analysis of Variance		DF	Sum of Squares	Mean Square
Regression		3	2.64655	.88218
Residual		3	3.35345	1.11782
F =	.78920			
Signif F =	.5748			
Variable	Coefficient	Standard error	F	Sig F
ECON2	-.48570	.35797	1.841	.2679
ENVIR2	-.11968	.30150	.158	.7180
HEALTH2	.35265	.30335	1.351	.3291

³⁸¹Ibid., 345.

³⁸²Ibid., 341-345.

In order to completely evaluate Hypothesis 3, it was necessary to observe the results when an equation was computed selecting the cases for the second value for RSNA. Again, the present scores for HEALTH, ENVIR, and ECON, named HEALTH2, ENVIR2, and ECON2, were used to predict the dependent variable, READ, the difference for the level of reading activity in the past and present. After the sample was divided into two groups on the basis of their answers to question 2, when the value for the variable was RSNA = 2, pleasure, the cases numbered 95.

The means and standard deviations are reported in table 70. HEALTH2, ENVIR2, and ECON2, the independent variables, all have positive values. READ, the dependent variable, also has a positive value.

Table 70.--Means and standard deviations for variables HEALTH2, ENVIR2, ECON2, and READ, selected for RSNA = 2

	Mean	Std Dev
HEALTH2	13.495	13.681
ENVIR2	8.537	8.564
ECON2	7.821	7.981
READ	.189	1.429
N of Cases = 95		

The correlations are in table 71. As can be noted, HEALTH2 and ENVIR2 are positively correlated (.4192) at the $p < .01$ level. None of the other correlations are significant.

Table 71.--Correlations for variables HEALTH2, ENVIR2, ECON2, and READ, selected for RSNA = 2

	HEALTH2	ENVIR2	ECON2
HEALTH2			
ENVIR2	.4192**		
ECON2	.1483	.0403	
READ	-.1746	-.0073	-.2374
N of cases:	95		

**p < - .001

The statistics for the regression equation are in table 72. For this equation, the variable was the second answer for question 2 (RSNA = 2, pleasure), consisting of 95 cases. The multiple R for this equation, .29621, is not very close to 1, indicating that the correlation coefficient for the predicted and observed values of the equation is not particularly high. The R^2 is .08774, indicating that less than 10 percent of the variation in the dependent variable can be explained by the three independent variables. The adjusted R_2 is .05800, indicating that, when R^2 is adjusted for the sample values, the equation still explains only slightly over 5 percent of the variability in the dependent variable.³⁸³

The regression mean square, 5.67402, is slightly larger than the residual mean square, 1.92367, indicating that there is only a slight possibility that there may be a

³⁸³Ibid., 344, 346.

linear relationship among the independent variables and the dependent variable. Finally, the F-value for the equation is 2.94958, and the observed significance level, .0368, is larger than .00005.³⁸⁴

The regression coefficients, the standard error for the sampling distribution, the F-value, and the significance level for each F-value, are given in table 72 for each of the independent variables.³⁸⁵ Using the significance levels for the F-values, it would seem that none of the variables contribute appreciably to the predictive value of the

Table 72.--Regression statistics for HEALTH2, ENVIR2, ECON2, and READ, selected for RSNA = 2

Multiple R	.29621			
R Square	.08774			
Adjusted R Square	.05800			
Standard Error	1.38697			
<hr/>				
Analysis of Variance	DF	Sum of Squares	Mean Square	
Regression	3	17.02206	5.67402	
Residual	92	176.97794	1.92367	
F =	2.94958			
Signif F =	.0368			
<hr/>				
Variable	Coefficient	Standard error	F	Sig F
ECON2	-.16295	.08565	3.619	.0602
HEALTH2	-.10865	.07034	2.386	.1259
ENVIR2	.34204	.12645	7.316	.0081

³⁸⁴Ibid., 345.

³⁸⁵Ibid., 341-345.

equation, although ENVIR2 may have more influence than the others.

On the whole, Hypothesis 3 is not supported by the test reported in table 69, or the test reported in table 72. For the hypothesis to have been supported, the first equation for value 1 (information) of variable RSNA, should not have been significant, while the second equation for value 2 (pleasure) for variable RSNA, should have been significant. Since the equation for value 2 (pleasure) was not significant, Hypothesis 3 was not supported.

Television Viewing Level

Analysis of Hypothesis 3 by Regression

Since Hypothesis 3 is concerned with the influence of the purpose for using a source on the level of use of a source, it was decided that it might be worthwhile to investigate the use of other means of information acquisition besides reading. The present scores for HEALTH, ENVIR, and ECON, named HEALTH2, ENVIR2, and ECON2 were also used to predict the dependent variable, TVHRS, the difference for the level of television viewing activity in the past and present, after the sample was divided into two groups on the basis of their answers to question 4.

The choices of response for question 4 were "I watched television to find out what was going on in the world" (value 1 = information), or "I watched television for pleasure

or entertainment" (value 2 = pleasure). The name of the variable for analysis by SPSSPC+ V2.0 was TVRSNA. The value for the variable for the first equation was TVRSNA = 1, information.

The means and standard deviations are reported in table 73. HEALTH2, ENVIR2, ECON2, the composite variables for the present scores of HEALTH, ENVIR, and ECON, all have positive values. TVHRS, the difference for number of hours spent daily television viewing in the past and present was negative. (See Appendix E for a comparison of daily television viewing for the past and present). A slight majority, numbering 53, watched television for information in the past as reported in table 44.

Table 73.--Means and standard deviations for variables HEALTH2, ENVIR2, ECON2, and TVHRS, selected for TVRSNA = 1

	Mean	Std Dev
HEALTH2	13.962	14.117
ENVIR2	8.566	8.589
ECON2	7.868	8.053
TVHRS	-2.137	3.208
N of Cases = 53		

The correlations are in table 74. As can be noted ECON2 and TVHRS are negatively correlated at the $p < .01$ level. None of the other correlations are significant, although HEALTH2 and TVHRS are negatively correlated and ENVIR2 and TVHRS are negatively correlated.

Table 74.--Correlations for variables for variables HEALTH2, ENVIR2, ECON2, and TVHRS, selected for TVRSNA = 1

	HEALTH2	ENVIR2	ECON2
HEALTH2			
ENVIR2	.2033		
ECON2	.3153	.0866	
TVHRS	-.0275	-.2648	-.3284*
N of cases:	53		

*p < - .01

The statistics for the regression equation are in table 75. For this equation, the variable for question 4 was TVRSNA = 1 , information, consisting of 53 cases, indicating that viewers watched to find out what was going on in the world. The multiple R for this equation, .71671, is fairly close to 1, indicating that the correlation coefficient for the predicted and observed values of the equation is fairly high. The R^2 is .51368, indicating that slightly over half of the variation in the dependent variable can be explained by the three independent variables. The adjusted R_2 is .48450, indicating that, when R^2 is adjusted for the sample values, the equation still explains almost half the variability in the dependent variable.³⁸⁶

The regression mean square, 93.37135, is larger than the residual mean square, 5.30397, indicating that there may be a linear relationship among the independent and the

³⁸⁶Ibid., 344, 346.

dependent variables. The F-value for the equation is 17.60405, and the observed significance level is smaller than .00005.³⁸⁷

The regression coefficients, the standard error for the sampling distribution, the F-value, and the significance level for each F-value, are given in table 75 for each of the independent variables.³⁸⁸ Using the significance levels for the F-values, it would seem that only ECON2 makes some contribution to the predictive value of the equation. It is not surprising that HEALTH2 would make so little contribution, since even poor health would still allow an individual to continue to watch television.

Table 75.--Regression statistics for HEALTH2, ENVIR2, ECON2, and TVHRS, selected for TVRSNA = 1

Multiple R	.71671			
R Square	.51368			
Adjusted R Square	.48450			
Standard Error	2.30303			
<hr/>				
Analysis of Variance	DF	Sum of Squares	Mean Square	
Regression	3	280.11406	93.37135	
Residual	50	265.19844	5.30397	
F =	17.60405			
Signif F =	.0000			
<hr/>				
Variable	Coefficient	Standard error	F	Sig F
ECON2	-.43101	.19182	5.049	.0291
ENVIR2	-.21381	.25868	.683	.4124
HEALTH2	.21824	.15901	1.884	.1760

³⁸⁷Ibid., 345.

³⁸⁸Ibid., 341-345.

In order to completely evaluate Hypothesis 3 in terms of the level of television viewing it was necessary to compute an equation based on the second value for variable TVRSNA, (value 2 = pleasure). Again the present scores for HEALTH, ENVIR, and ECON named HEALTH2, ENVIR2, and ECON2 were used to predict the dependent variable, TVHRS, the difference for the level of television viewing activity in the past and present, after the sample was divided into two groups on the basis of their answers to question 4. The group selected were those who answered pleasure, with a value of 2, numbering 32 cases. The number is smaller than might be expected because during the past period when they were ages 40-55, a number of respondents indicated that they did not own a television.

Means and standard deviations are reported in table 76. HEALTH2, ENVIR2, and ECON2 all have positive values, but TVHRS has a negative value. For a comparison of the number of hours spent daily viewing television in the past and present, see Appendix E.

Table 76.--Means and standard deviations for variables ENVIR2, ECON2, HEALTH2, and TVHRS selected for TVRSNA = 2

	Mean	Std Dev
HEALTH2	12.875	13.081
ENVIR2	8.531	8.557
ECON2	8.000	8.109
TVHRS	-3.695	4.464

N of Cases = 32

The correlations are in table 77. As can be seen, ECON2 and TVHRS are negatively correlated (-.4293) at the $p < .01$ level, and HEALTH2 and ENVIR2 are positively correlated (.4725) at the same level.

Table 77.--Correlations for variables HEALTH2, ENVIR2, ECON2, and TVHRS, selected for TVRSNA = 2

	HEALTH2	ENVIR2	ECON2
HEALTH2			
ENVIR2	.4725*		
ECON2	.0000	-.1788	
TVHRS	-.0878	.1241	-.4293*
N of cases:	32		

* $p < .01$

The statistics for the regression equation are in table 78. For this equation, the variable for question 4 was TVRSNA = 2, pleasure, consisting of 32 cases. The multiple R for this equation, .86547, is fairly close to 1, indicating that the correlation coefficient for the predicted and observed values of the equation is fairly high. The R^2 is .74904, indicating that almost 75 percent of the variation in the dependent variable can be explained by the three independent variables. The adjusted R^2 is .72308, indicating that, when R^2 is adjusted for the sample values, the equation still explains slightly over 70 percent of the variability in the dependent variable.³⁸⁹

³⁸⁹Ibid., 344, 346.

The regression mean square, 159.18609, is much larger than the residual mean square, 5.51739, indicating that there may be a linear relationship among the independent variables and the dependent variable. The F-value for the equation is 28.85172, and the observed significance level is less than .00005.³⁹⁰

The regression coefficients, the standard error for the sampling distribution, the F-value, and the significance level for each F-value, are given in table 78 for each of the independent variables.³⁹¹ Using the significance levels for the F-values, it would seem that only ECON2 makes some contribution to the predictive value of the equation. It is not surprising that HEALTH2 would make so little contribution, since even poor health would still allow an individual to continue to watch television.

On the whole, however, Hypothesis 3 is not supported by the test reported in table 75 or the test reported in table 78. For the hypothesis to have been supported, the first equation for value 1 (information) of variable TVRSNA, should not have been significant, while the second equation for value 2 (pleasure) for variable TVRSNA, should have been significant. Since the equation for value 1 was significant, Hypothesis 3 was not supported.

³⁹⁰Ibid., 345.

³⁹¹Ibid., 341-345.

Table 78.--Regression statistics for HEALTH2, ENVIR2, ECON2, and TVHRS, selected for TVRSNA = 2

Multiple R	.86547			
R Square	.74904			
Adjusted R Square	.72308			
Standard Error	2.34891			
<hr/>				
Analysis of Variance	DF	Sum of Squares	Mean Square	
Regression	3	477.55828	159.18609	
Residual	29	160.00422	5.51739	
F =	28.85172			
Signif F =	.0000			
<hr/>				
Variable	Coefficient	Standard error	F	Sig F
ECON2	-.75480	.26719	7.980	.0085
HEALTH2	-.15775	.20360	.600	.4447
ENVIR2	.51241	.38748	1.749	.1964

Radio Listening Activity Level

Analysis of Hypothesis 3 by Regression

Since Hypothesis 3 is concerned with the influence of the purpose for using a source on the level of use of a source, it was decided to investigate the use of the remaining means of information acquisition explored in the interview schedule, radio listening. The present scores for HEALTH, ENVIR, and ECON, named HEALTH2, ENVIR2, and ECON2 were also used to predict the dependent variable, RHRS, the difference for the level of radio listening activity in the past and present, after the sample was divided into two groups on the basis of their answers to question 7. The choices of response for question 7 were "I listened to the radio to find out what was going on in the world" (value 1 =

information), or "I listened to the radio for pleasure or entertainment" (value 2 = pleasure). The name of the variable for analysis by SPSSPC+ V2.0 was RDRSNA. The value for the variable for the first equation was RDRSNA = 1, information, numbering 45 cases.

The means and standard deviations are reported in table 79. HEALTH2, ENVIR2, and ECON2 all have positive values, but RHRS has a negative value. The number of radio hours listened to, RHRS, tended to decline from the past to the present, as noted in Appendix F.

Table 79.--Means and standard deviations for variables HEALTH2, ENVIR2, ECON2, and RHRS, selected for RDRSNA = 1

	Mean	Std Dev
HEALTH2	13.244	13.476
ENVIR2	8.489	8.524
ECON2	7.756	7.884
RHRS	-3.917	6.670
N of Cases = 45		

The correlations are in table 80. As can be noted, none of the variables is significantly correlated.

Table 80.--Correlations for variables HEALTH2, ENVIR2, ECON2, and RHRS, selected for RDRSNA = 1

	HEALTH2	ENVIR2	ECON2
HEALTH2			
ENVIR2	.3287		
ECON2	.0359	-.0125	
RHRS	-.0932	.1386	-.0517
N of cases: 45			

The statistics for the regression equation are given in table 81. For this equation, the variable for question 4 was RDRSNA = 1, information (N=45). The multiple R for this equation, .60025, is fairly close to 1, indicating that the correlation coefficient for the predicted and observed values of the equation is fairly high. The R^2 is .36031, indicating that over 30 percent of the variation in the dependent variable can be explained by the three independent variables. The adjusted R^2 is .31461, indicating that, when R^2 is adjusted for the sample values, the equation still explains a little over 30 percent of the variability in the dependent variable.³⁹²

The regression mean square, 240.42017, is much larger than the residual mean square, 30.48911, indicating that there may be a linear relationship among the independent variables and the dependent variable. However, the F-value for the equation is 7.88544, and the observed significance level is .0003, which is larger than .00005.³⁹³

The regression coefficients, the standard error for the sampling distribution, the F-value, and the significance level for each F-value, are given in table 81 for each of the independent variables. Using the significance levels for the F-values, it would seem that none of the variables

³⁹²Ibid., 344, 346.

³⁹³Ibid., 345.

makes a significant contribution to the predictive value of the equation.

Table 81.--Regression statistics for HEALTH2, ENVIR2, ECON2, and RHRS, selected for RDRSNA = 1

Multiple R	.60025			
R Square	.36031			
Adjusted R Square	.31461			
Standard Error	5.52169			
<hr/>				
Analysis of Variance	DF	Sum of Squares	Mean Square	
Regression	3	721.26051	240.42017	
Residual	42	1280.54249	30.48911	
<hr/>				
F =	7.88544			
Signif F =	.0003			
<hr/>				
Variable	Coefficient	Standard error	F	Sig F
ECON2	-.40345	.52050	.601	.4426
HEALTH2	-.37484	.34783	1.161	.2873
ENVIR2	.49907	.68335	.533	.4692

Complete analysis of Hypothesis 3 in terms of the level of radio listening could only be accomplished by evaluating an equation based on the second value for RDRSNA, pleasure. As in previous analyses, the present scores for HEALTH, ENVIR, and ECON named HEALTH2, ENVIR2, and ECON2 were used to predict the dependent variable, RHRS, the difference for the level of radio listening activity in the past and present, after the sample was divided into two groups on the basis of their answers to question 7. The group selected were those who answered pleasure, with a value of 2, numbering 51 cases.

Means and standard deviations are reported in table 82. HEALTH2, ENVIR2, and ECON2 all have positive values, but RHRS has a negative value. The number of radio hours listened to daily, tended to decline from the past to the present, as noted in Appendix F.

Table 82.--Means and standard deviations for variables HEALTH2, ENVIR2, ECON2, and RHRS, selected for RDRSNA = 2

	Mean	Std Dev
HEALTH2	13.608	13.751
ENVIR2	8.549	8.570
ECON2	7.863	8.033
RHRS	-1.965	6.135
N of Cases = 51		

The correlations are in table 83. As can be noted HEALTH2 and ENVIR2 are correlated positively (.4582) at the $p < .001$ level. None of the other variables are significantly correlated.

Table 83.--Correlations for variables HEALTH2, ENVIR2, ECON2, and RHRS, selected for RDRSNA = 2

	HEALTH2	ENVIR2	ECON2
HEALTH2			
ENVIR2	.4582**		
ECON2	.3144	.0561	
RHRS	.0633	.1509	-.0559
N of cases: 51			

**p < - .001

The statistics for the regression equation are given in table 84. For this equation, the variable for question 4 was RDRSNA = 2, pleasure (N=51). The multiple R for this equation, .32713, is not close to 1, indicating that the correlation coefficient for the predicted and observed values of the equation is not very high. The R^2 is .10701, indicating that only a little over 10 percent of the variation in the dependent variable can be explained by the three independent variables. The adjusted R^2 is .05120, indicating that, when R^2 is adjusted for the sample values, the equation explains only slightly over 5 percent of the variability in the dependent variable.³⁹⁴

The regression mean square, 68.47115, is slightly larger than the residual mean square, 35.71109, indicating that there may be a linear relationship among the independent variables and the dependent variable. However, the F-value for the equation is 1.91736, and the observed significance level, .1393, is larger than .00005.³⁹⁵

The regression coefficients, the standard error for the sampling distribution, the F-value, and the significance level for each F-value, are given in table 84 for each of the independent variables.³⁹⁶ The very small value for the

³⁹⁴Ibid., 344, 346.

³⁹⁵Ibid., 345.

³⁹⁶Ibid., 341-345.

coefficient for ENVIR2 (9.577097E-03) is reported using exponential notation.³⁹⁷ Using the significance levels for the F-values, it would seem that none of the variables makes a significant contribution to the predictive value of the equation.

Table 84.--Regression statistics for HEALTH2, ENVIR2, ECON2, and RHRS, selected for RDRSNA = 2

Multiple R	.32713			
R Square	.10701			
Adjusted R Square	.05120			
Standard Error	5.97588			
<hr/>				
Analysis of Variance	DF	Sum of Squares	Mean Square	
Regression	3	205.41346	68.47115	
Residual	48	1714.13254	35.71109	
F =	1.91736			
Signif F =	.1393			
<hr/>				
Variable	Coefficient	Standard error	F	Sig F
ECON2	-.40064	.51782	.599	.4429
ENVIR2	9.577097E-03	.79266	.000	.9904
HEALTH2	.08538	.50159	.029	.8656

On the whole, Hypothesis 3 is not supported, based on the test reported in table 81 and the test reported in table 84. For the hypothesis to have been supported, the first equation for value 1 (information) of variable RDRSNA, should not have been significant, while the second equation for value 2 (pleasure) for variable RDRSNA, should have been

³⁹⁷Marija J. Norusis, "Multiple Regression: PROCEDURE Regression," chap. in SPSSPC+ V2.0 Base Manual for the IBM PC/XT/AT and PS/2. (Chicago: SPSS, 1988), B-221.

significant. Since the equation for value 2 was not significant, Hypothesis 3 was not supported.

Reading Activity Level

Analysis of Hypothesis 3 by Analysis of Variance

Analysis of variance was performed for variable HEALTH by variable RSN, variable ENVIR by variable RSN, variable ECON by variable RSN, and variable EDUC by variable RSN. RSN was the difference in the purpose for reading from the past to the present. Variable RSN was divided into three groups, based on those who had changed from reading for information in the past to reading for pleasure in the present (Group 1), those who had changed from reading for pleasure in the past to reading for information in the present (Group -1), and those for whom there had been no change (Group 0).

The summary statistics and 95 percent confidence intervals for the means for the analysis of variance for variable HEALTH by variable RSN are in table 85. Since the groups are very unequal, the tests for homogeneity of variance are given in table 86. The results of the analysis of variance for variable HEALTH by variable RSN are in table 87. Significance for the F-value (.2738), was rather high,

Table 85.--Summary statistics for variable HEALTH by variable RSN

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf	Int for Mean
Grp-1	4	-3.7500	1.7078	.8539	-6.4675 To	-1.0325
Grp 0	93	2.6882	2.1314	.2210	2.2492 To	3.1271
Grp 1	-3	4.3333	2.0817	1.2019	-9.5045 To	.8379
Total	100	-2.7800	2.1253	.2125	-3.2017 To	-2.3583

Group	Minimum	Maximum
Grp-1	-6.0000	-2.0000
Grp 0	-9.0000	1.0000
Grp 1	-6.0000	-2.0000
Total	-9.0000	1.0000

Table 86.--Tests for homogeneity of variances for variable HEALTH by variable RSN

Cochrans C = Max. Variance/Sum(Variances) = .3852, P = .657
(Approx.)

Bartlett-Box F = .109 , P = .897

Maximum Variance / Minimum Variance 1.558

Table 87.--Analysis of Variance for variable HEALTH by variable RSN

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	11.7863	5.8932	1.3130	.2738
Within Groups	97	435.3737	4.4884		
Total	99	447.1600			

indicating that Hypothesis 3 was not supported by this test.³⁹⁸

Multiple range tests, including the LSD procedure, modified LSD procedure, Duncan, Student-Newman-Keuls, Tukey-HSD, Tukey-B, and Scheffe, indicated that no two groups were significant at the .050 level, further indicating that the analysis of variance for Hypothesis 3 for variable HEALTH by variable RSN did not support the hypothesis.³⁹⁹

The summary statistics and 95 percent confidence intervals for the means for the analysis of variance for variable ENVIR by variable RSN are in table 88. Since the groups are very unequal, the tests for homogeneity of variance are given in table 89. The results of the analysis of variance for variable ENVIR by variable RSN are in table 90. Significance for the F-value (.2473) was rather high, so Hypothesis 3 could not be supported based on this test.⁴⁰⁰

Multiple range tests, including the LSD procedure, modified LSD procedure, Duncan, Student-Newman-Keuls, Tukey-HSD, Tukey-B, and Scheffe, indicated that no two groups were significant at the .050 level, further indicating that

³⁹⁸Marija J. Norusis, "Comparing Several Means," chap. in The SPSS Guide to Data Analysis (Chicago, Ill.: SPSS, 1986), 252-262.

³⁹⁹Ibid., 263-264.

⁴⁰⁰Ibid., 252-262.

Table 88.--Summary statistics for variable ENVIR by variable RSN

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf	Int for Mean
Grp-1	4	-.2500	1.2583	.6292	-2.2522 To	1.7522
Grp 0	93	-.1828	.8068	.0837	-.3490 To	-.0166
Grp 1	3	-1.0000	1.0000	.5774	-3.4842 To	1.4842
Total	100	-.2100	.8324	.0832	-.3752 To	-.0448

Group	Minimum	Maximum
Grp-1	-2.0000	1.0000
Grp 0	-3.0000	3.0000
Grp 1	-2.0000	.0000
Total	-3.0000	3.0000

Table 89.--Tests for homogeneity of variances for variable ENVIR by variable RSN

Cochrans C = Max. Variance/Sum(Variances) = .4895, P = .041
(Approx.)

Bartlett-Box F = .746 , P = .476

Maximum Variance / Minimum Variance 2.432

Table 90.--Analysis of variance for variable ENVIR by variable RSN

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1.9475	.9738	1.4173	.2473
Within Groups	97	66.6425	.6870		
Total	99	68.5900			

Hypothesis 3, based on an analysis of variable ENVIR by variable RSN, could not be supported.⁴⁰¹

The summary statistics and 95 percent confidence intervals for the means for the analysis of variance for variable ECON by variable RSN are in table 91. Since the groups are very unequal, the tests for homogeneity of variance are given in table 92. The results of the analysis of variance for variable ECON by variable RSN are in table 93. Significance for the F-value (.4119), was rather high, so Hypothesis 3, for variable ECON by variable RSN, was not supported.⁴⁰²

Table 91.--Summary statistics for variable ECON by variable RSN

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf	Int for Mean
Grp-1	4	5.0000	1.1547	.5774	3.1626	To 6.8374
Grp 0	93	5.4624	1.6521	.1731	5.1221	To 5.8026
Grp 1	3	6.0000	1.0000	.5774	3.5158	To 8.4842
Total	100	5.4600	1.6170	.1617	5.1392	To 5.7808
Group	Minimum	Maximum				
Grp-1	4.0000	6.0000				
Grp 0	1.0000	9.0000				
Grp 1	5.0000	7.0000				
Total	1.0000	9.0000				

⁴⁰¹Ibid., 262-264.

⁴⁰²Ibid., 252-262.

Table 92.--Tests for homogeneity of variances for variable
ECON by variable RSN

Cochrans C = Max. Variance/Sum(Variances) = .5391, P = .006 (Approx.)
Bartlett-Box F = .575 , P = .563
Maximum Variance / Minimum Variance 2.730

Table 93.--Analysis of variance variable ECON by variable
RSN

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	1.7217	.8609	.3248	.7235
Within Groups	97	257.1183	2.6507		
Total	99	258.8400			

Multiple range tests, including the LSD procedure, modified LSD procedure, Duncan, Student Newman Keuls, Tukey-HSD, Tukey-B, and Scheffe, indicated that no two groups were significant at the .050 level, further indicating that the Hypothesis 3, based on an analysis of variance for variable ECON by variable RSN, was not supported.⁴⁰³

The summary statistics and 95 percent confidence intervals for the means for the analysis of variance for variable EDUC by variable RSN are in table 94. Since the groups are very unequal, the tests for homogeneity of variance are given in table 95. For this variable, the

⁴⁰³Ibid., 262-264.

assumption of homogeneity of variance seems to be met. The results of the analysis of variance for variable EDUC by variable RSN are in table 96. Significance for the F-value (.0018), was not very high, so this offered some support for Hypothesis 3.⁴⁰⁴

Table 94.--Summary statistics for variable EDUC by variable RSN

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf	Int for Mean
Grp-1	4	12.0000	4.3205	2.1602	5.1252	To 18.8748
Grp 0	93	13.6828	3.1741	.3291	13.0291	To 14.3365
Grp 1	3	7.0000	1.7321	1.0000	2.6973	To 11.3027
Total	100	13.4150	3.3740	.3374	12.7455	To 14.0845
Group		Minimum	Maximum			
Grp-1		8.0000	18.0000			
Grp 0		.0000	21.0000			
Grp 1		5.0000	8.0000			
Total		.0000	21.0000			

Table 95.--Tests for homogeneity of variances for variable EDUC by variable RSN

Cochrans C = Max. Variance/Sum(Variances) = .5881, P = .001 (Approx.)
Bartlett-Box F = .754 , P = .472
Maximum Variance / Minimum Variance 6.222

⁴⁰⁴Ibid., 252-262.

Table 96.--Analysis of variance for variable EDUC by variable RSN

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	138.1350	69.0675	6.7748	.0018
Within Groups	97	988.8925	10.1948		
Total	99	1127.0275			

Multiple range tests were also performed to further evaluate "which pairs of groups appeared to have different means."⁴⁰⁵ A number of such tests are available, and are termed liberal or conservative, depending on whether the procedure

"[makes] it easier for the researcher to find a difference between two means than others which require the two sample means to be farther apart before a significant difference can be said to exist."⁴⁰⁶

Variable RSN was divided into three groups, based on those who had changed from reading for information in the past to reading for pleasure in the present (Group 1), those who had changed from reading for pleasure in the past to reading for information in the present (Group -1), and those for whom there had been no change (Group 0).

The LSD procedure (table 97), a liberal test, and the

⁴⁰⁵Ibid., 262-264.

⁴⁰⁶Schuyler W. Huck, William H. Cormier, and William G. Bounds, Jr., "t-Tests, One-Way Analysis of Variance, and Multiple Comparison Procedures," chap. in Reading Statistics and Research, (New York: Harper & Row, 1974), 69.

Student-Newman-Keuls procedure (table 98), a moderate test, indicated that groups -1 and 1, and groups 1 and 0, were significant at the .050 level. The Scheffe procedure (table 99), a conservative test, indicated only that groups 1 and 0 were significant at the .050 level. However, these procedures further indicated that Hypothesis 3 was supported based on an analysis of variable EDUC by variable RSN.⁴⁰⁷

Table 97.--Results of multiple range test (LSD procedure) for analysis of variance for variable EDUC by variable RSN

Means	Groups		
	1	-1	0
1 7.0000			
-1 12.0000	*		
0 13.6828	*		

*denotes groups significantly different at the .050 level

Table 98.--Results of multiple range test (Student-Newman-Keuls procedure) for analysis of variance for variable EDUC by variable RSN

Means	Groups		
	1	-1	0
1 7.0000			
-1 12.0000	*		
0 13.6828	*		

*denotes groups significantly different at the .050 level

⁴⁰⁷Ibid., 262-264.

Table 99.--Results of multiple range test (Scheffe procedure) for analysis of variance for variable EDUC by variable RSN

Means	Groups		
	1	-1	0
1	7.0000		
-1	12.0000		
0	13.6828	*	

*denotes groups significantly different at the .050 level

Summary of the Analysis for Hypothesis 3

Since the discussion of Hypothesis 3 has been lengthy, a re-statement of the hypothesis may aid the following discussion:

Among older adults who identified pleasure as their primary motivation for reading earlier in life, health, environmental, and economic constraints will show a greater effect on present use of information sources than for the group who identified information as their primary motivation.

Reading is one method of information acquisition, but since the interview schedule also provided the data for evaluating other methods of information acquisition, changes in the level of television viewing and radio listening were also evaluated. All of these methods of information acquisition were evaluated according to whether those who used the method for pleasure in the past would exhibit a greater change in level of reading activity, television viewing activity, or radio listening activity than those in the past who used the method principally for information.

Finally, the level of reading activity was also evaluated according to whether the educational level of respondents would influence the instances of change in their purpose for reading from the past to the present.

The concern was that there would be loss of interest in reading with age, perhaps due to physical difficulties, such as visual problems, and that as a result the purpose for reading would change, from pleasure to information (reading only out of necessity). Those who read for pleasure might have been expected to read at higher levels of reading activity in the past, and if their purpose for reading in the present changed to information, exhibit a greater decline in level of reading activity from the past to present, than someone who read for information or pleasure in both the past and present, or someone who had read for information in the past, but read for pleasure in the present. On the contrary, the purpose for reading tended to remain constant, as other research studies have reported. There was more change from the past to the present period in the purpose for television viewing and radio listening than for reading.

A variety of statistical tests were used to analyze Hypothesis 3. The t-test, regression analysis, and analysis of variance were used. Evaluation of reading activity level by the t-test and regression analysis did not support Hypothesis 3. Analysis by regression for television viewing

activity level and radio listening activity level also failed to provide support for the hypothesis.

However, the analysis of the level of reading activity according to whether educational level would influence changes in purpose for reading from the past to the present did provide some support for the hypothesis. Analysis of variance was used for this portion of the evaluation, and further support was provided by several multiple range tests, which indicated that groups were significantly different at the .050 level.

Variable RSN was divided into three groups, based on those who had changed from reading for information in the past to reading for pleasure in the present (Group 1), those who had changed from reading for pleasure in the past to reading for information in the present (Group -1), and those for whom there had been no change (Group 0). Groups -1 and 1 and groups 1 and 0 were all found to differ significantly from each other.

Hypothesis 4

H₀4 The higher the educational level, the less likely that there will be a difference between past and present purpose for reading.

Hypothesis 4 was tested by the following procedure:

The group was again divided into three parts on the basis of answers to questions #2 and #26. The first

subgroup was those who had the same motivation as in the past (Group 0), the second was those who shifted from information to pleasure (Group 1), and the third was those who shifted from pleasure to information (Group -1). These three subgroups were compared on differences in educational level (#57), using analysis of variance.

The summary statistics and 95 percent confidence intervals for the means for the analysis of variance for variable EDUC by variable RSN are in table 100. Since the groups are very unequal, the tests for homogeneity of variance are given in table 101. For this variable, the assumption of homogeneity of variance seems to be met. The results of the analysis of variance for variable EDUC by variable RSN are in table 102. Probability for the F-value (.0018), was not very high, so this offered some support for Hypothesis 4.⁴⁰⁸

Table 100.--Summary statistics for variable EDUC by variable RSN

Group	Count	Mean	Standard Deviation	Standard Error	95 Pct Conf	Int for Mean
Grp-1	4	12.0000	4.3205	2.1602	5.1252	To 18.8748
Grp 0	93	13.6828	3.1741	.3291	13.0291	To 14.3365
Grp 1	3	7.0000	1.7321	1.0000	2.6973	To 11.3027
Total	100	13.4150	3.3740	.3374	12.7455	To 14.0845

⁴⁰⁸Ibid., 252-262.

Table 100.--Continued.

Group	Minimum	Maximum
Grp-1	8.0000	18.0000
Grp 0	.0000	21.0000
Grp 1	5.0000	8.0000
Total	.0000	21.0000

Table 101.--Tests for homogeneity of variances for variable EDUC by variable RSN

Cochrans C = Max. Variance/Sum(Variances) = .5881, P = .001
(Approx.)

Bartlett-Box F = .754 , P = .472

Maximum Variance / Minimum Variance 6.222

Table 102.--Analysis of variance for variable EDUC by variable RSN

Source	D.F.	Sum of Squares	Mean Squares	F Ratio	F Prob.
Between Groups	2	138.1350	69.0675	6.7748	.0018
Within Groups	97	988.8925	10.1948		
Total	99	1127.0275			

Multiple range tests were also performed to further evaluate "which pairs of groups appeared to have different means."⁴⁰⁹ Variable RSN was divided into three groups, based on those who had changed from reading for information in the past to reading for pleasure in the present (Group 1), those

⁴⁰⁹Ibid., 262-264.

who had changed from reading for pleasure in the past to reading for information in the present (Group -1), and those for whom there had been no change (Group 0).

The LSD procedure (table 103), a liberal test, and the Student-Newman-Keuls procedure (table 104), a moderately stringent test, indicated that groups -1 and 1, and groups 1 and 0, were significant at the .050 level.

Table 103.--Results of multiple range test (LSD procedure) for analysis of variance for variable EDUC by variable RSN

Means	Groups		
	1	-1	0
1 7.0000			
-1 12.0000	*		
0 13.6828	*		

*denotes groups significantly different at the .050 level

Table 104.--Results of multiple range test (Student-Newman-Keuls procedure) for analysis of variance for variable EDUC by variable RSN

Means	Groups		
	1	-1	0
1 7.0000			
-1 12.0000	*		
0 13.6828	*		

*denotes groups significantly different at the .050 level

The Scheffe procedure (table 105), a conservative test, indicated only that groups 1 and 0 were significant at the .050 level. However, these procedures further indicated

that the null hypothesis for Hypothesis 4 could be rejected, and offered support for the hypothesis as stated.⁴¹⁰

Table 105.--Results of multiple range test (Scheffe procedure) for analysis of variance for variable EDUC by variable RSN

Means	Groups		
	1	-1	0
1	7.0000		
-1	12.0000		
0	13.6828	*	

*denotes groups significantly different at the .050 level

Summary

This chapter presented the results of statistical analyses used to test the four hypotheses of the study. Hypothesis one, which predicted a relationship among increases in health, environmental and economic constraints, and the use of external channels of distribution was supported, as was Hypothesis two, which predicted the absence of a relationship among increases in health, environmental, and economic constraints and the use of proximate channels of distribution.

Hypothesis three was only partially supported for education. This hypothesis was based on an assumption that, for the two time periods measured, there would be changes in the purpose for reading, television viewing, and radio

⁴¹⁰Ibid., 263-264.

listening, which would in turn affect levels of reading activity, television viewing, and radio listening. Changes in purpose for using those methods of information acquisition did not have a significant effect on the level of reading activity, television viewing activity, or radio listening activity. Educational level did seem to influence whether respondents changed their purpose for reading, however. Hypothesis four, which predicted that the higher the educational level, the less likely that there would be a difference between past and present purpose for reading, was supported, indicating the influence of education in the reading process.

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CHAPTER 6

CONCLUSIONS AND IMPLICATIONS

Over the last thirty years, demographers have documented an increase in the portion of the population age 65 and over. This pattern is expected to continue well into the next century. The health and educational characteristics of this segment of the population have also been studied. While the majority of older adults may suffer the decrements of "normal" aging in varying degrees, a minority may require institutionalization in nursing homes because of health problems. The educational level of the present group of older adults may fall below that of younger adults, because of limited educational opportunities and a higher proportion of immigrants with limited education. Future generations of older adults may have educational levels comparable to those of younger adults.

This shift in population demographics will have implications for many institutions, including libraries and other information organizations. Patterns of information acquisition evolve, over a lifetime, through interaction with many information sources and channels of distribution. The changes that accompany aging may cause changes in the use of information sources and channels of distribution.

The "normal" decrements of aging may include losses in general health, vision, hearing, and physical mobility, varying only in degree among individuals. There may be losses in flexibility of the type of transportation used, due to declines in health and vision. Income satisfaction may vary for a number of reasons. Over time, attitudes toward book purchasing may change.

In turn, patterns of use of information sources and channels of distribution may change. If there are serious losses in visual capability, for example, which in turn lead to an inability to drive a personal car, the loss of vision may inhibit book reading, as well as the ability to obtain alternatives to regular print, such as large print or books on tape. Television, another means of information acquisition available at the residence, may provide an attractive alternative, and its use may increase, while the use of libraries, bookstores, and similar channels of distribution may decline.

Other changes may occur with age, over time. There are a variety of information sources and channels of distribution available for use. Adults may vary considerably in their selection of specific sources and channels of distribution. The unprecedented growth of the older segment of the population will have many implications for service delivery by libraries as well as other channels of distribution. Efforts to understand variation in use by adults of

information sources and channels of distribution, should provide information necessary in planning for the coming change.

Summary of the Study

Personal interviews were conducted with a group of older adults (N=101) sixty-five years of age and over. The participants were selected from three sites in Denton, Texas. All three sites were retirement residences with apartments, duplexes, or fourplexes, where residents must be capable of living independently.

The interview schedule was designed to collect information on adults' patterns of information acquisition at two points in time: the past (ages 40-55), and the present (ages 65 and over). Comparisons of the data for two periods in time illuminated changes.

Characteristics of the Respondents

Simple frequency counts confirmed that the sample tended to be racially homogeneous, composed primarily of single women, and was distributed fairly evenly among the three residence locations. The age categories indicated that individuals were represented at all ages (within the age range being studied), with the majority (N=85) clustering in the span 75-89. The educational level tended to be somewhat higher than might normally be expected, which

may be explained by the presence of two universities within the city.

Reading Activity and Purpose for Reading

The sample could be characterized as readers, according to the definitions of the study, for both past and present. Similarly, the motivation for reading tended to be one of regarding reading as a pleasurable activity, rather than of reading only out of necessity. There were few instances of change in purpose for reading from the past to the present, with the majority of respondents reporting that reading was a pleasurable activity in the past, and remains so in the present.

Health Characteristics

For each measure of health status--general health, vision, hearing, and mobility--the pattern was one of decline, with approximately half of the sample for each category reporting some measure of decline. Since the sample was deliberately selected from "well elderly," it is not surprising that those reporting the most serious level of decline, "a great deal of difficulty," were in the minority.

Transportation

Changes in transportation tended toward loss of flexibility. Driving one's personal car was the most

popular method of transportation in the past and present, but fewer people age 65 and over still drove a personal car. Riding with a friend or family member was the category that gained the most, while using public transportation was not preferred. SPAN, the local transportation service for the elderly, and the van provided by one of the residences were popular with significant minorities.

Income Satisfaction

There was a tendency for those in the sample to report increased income satisfaction from the past to the present, with this being more notable among females. Despite increased income satisfaction, books did not seem to be a favorite item for purchase, with the majority reporting that they bought books less frequently now than in the past. The sample was almost evenly divided on the importance of price as a factor in book purchasing. Approximately half considered it important, and approximately half did not.

Use of External Channels of Distribution

The pattern for the use of external channels of distribution tended to be one of decline. Each external channel of distribution suffered declines in use, although some used each source. A pattern also emerged for those 65 and over to rank a source that was used highly, indicating a tendency for channels of marginal importance to be dropped, with those that were more important being retained.

The total number of external channels of distribution used tended to decline also, with large increases in the number using only one channel, although a minority used none. In the earlier time period (40-55), more respondents tended to use a larger number of external channels of distribution.

Those external channels continuing to be used by the largest numbers were: borrowing from friends and relatives, the church library, and the grocery store. All of these might be associated with other intrinsically attractive activities.

Use of Proximate Channels of Distribution

Television was a very popular channel of distribution in both the past and present, and ownership and use increased in the present. It tended to be ranked as an important source in both the past and present, but a tendency to increased importance could be noted for the present. Television also was regarded as an important source for news and information, more so in the present than in the past. The shift was noted for both males and females, but was more noticeable for females.

Radio ownership tended to remain stable, but radio use did not, and its importance as a channel of distribution declined. There was not as dramatic a tendency for change in purpose in listening to the radio. The Radio Reading

Service was not used either in the past or present. This was perhaps not surprising, since respondents noted little visual difficulty for the past period, and, although there were instances of severe visual difficulty in the present, few seemed to be aware of this channel of distribution.

The pattern for use of proximate channels of distribution was one of slight, although noticeable, change. For some channels, use decreased slightly, while for others there was a slight increase. Overall, there was more stability in the use of proximate channels of distribution than in the use of external channels of distribution.

The total number of proximate channels of distribution used declined slightly. However, the pattern of decline was not nearly as dramatic as for external channels of distribution. Most respondents still used a variety of sources, with two being the minimum number used.

The National Library Service for the Blind and Physically Handicapped was used by only a few (N=3) of those in the present reporting severe visual difficulties. Those using the service reported reading activity in the largest use categories, and the impact of poor vision could be noted, since those reporting use were also among those that used no external channels of distribution.

Testing of Hypotheses

Four hypotheses were proposed and tested in this study.

1. As health, environmental, and economic constraints increase, there will be a decrease in use of information sources that require movement outside the residence.

2. As health, environmental, and economic constraints increase, there will be no decrease in use of information sources that are delivered to the residence.

3. Among older adults who identified pleasure as their primary purpose for reading earlier in life, health, environmental, and economic constraints will show a greater effect on present use of information sources than for the group that identified information as their primary purpose for reading.

4. The higher the educational level, the less likely that there will be a difference between past and present purpose for reading.

The hypotheses included several concepts that were measured using the following variables: (1) Health constraints were measured by responses to questions concerning general health, vision, hearing, and physical mobility. (2) Environmental constraints were measured by gathering information on respondents' access to television, radio, and transportation. (3) Economic constraints were measured by respondents' ratings of income satisfaction, the level of book purchasing for the present (ages sixty-five

and over), compared to the past (ages forty to fifty-five), and the importance of price in book purchasing for the present (ages sixty-five and over), compared to the past (ages forty to fifty-five).

The purpose for reading was measured by a question asking if reading was regarded as a pleasurable activity or an activity undertaken for information, only out of necessity. Educational level was measured by the respondents' report of years of formal education. Information sources that require movement outside the residence were measured by soliciting rankings of such sources from a list. Information sources that were delivered to the residence were similarly measured.

Hypothesis 1

H₀1. As health, environmental, and economic constraints increase, there will be a decrease in use of information sources that require movement outside the residence.

Hypothesis 1 was supported; simple frequency analyses indicated that there were declines in general health, vision, hearing, and physical mobility. Access to the most flexible means of transportation, a personal car, declined, but access to television receivers increased, and access to radio receivers remained stable. Although there was an increase in income satisfaction, frequency of purchase for

books declined or remained stable, and price, as a factor in book purchasing, was equally likely to be regarded as either important or not important. Finally, a decline was noted for the number of external channels of distribution used.

Regression analysis supported the hypothesis. Two methods were used to measure the dependent variable. The first method added the rankings for all the external channels of distribution used, and subtracted the present from the past. The second method simply counted the number of external channels of distribution used, and subtracted the present from the past. Regression analysis supported the hypothesis, regardless of the method used to compute the dependent variable.

Environmental constraints tended to play a less important role for Hypothesis 1, perhaps because the data collected in this study provided a weak measure for the concept. It was assumed that individuals who no longer drove their personal cars would rate the method of transportation that they did use as less convenient. However, in the interviews, it was evident that individuals tended to rate any method substituted for use of a personal car as "most convenient," perhaps introducing a level of psychological compensation as a coping mechanism for the loss of independence.

Similarly, the presence or absence of a television receiver, noted with a 1 or 0, and the presence or absence

of a radio receiver, noted with a 1 or 0, provided less measurement of difference than might be necessary to measure change in either of the dependent variables for external channels of distribution (EXT, measured by adding the rankings for all external channels of distribution in questions #23 and #52 and subtracting the past score from the present, or TOTEXT, measured by adding the total number of external channels of distribution used in questions #23 and #52 and subtracting the past from the present).

Indeed, inclusion of television and radio in the construct might be less valid for EXT or TOTEXT, than for either of the dependent variables used for proximate channels of distribution (PROX, measured by adding the rankings for all the proximate channels of distribution in questions #24 and #53 and subtracting the past score from the present, or TOTPROX, measured by adding the total number of proximate channels of distribution used in questions #24 and #53 and subtracting the past from the present).

Hypothesis 2

H₀2. As health, environmental, and economic constraints increase, there will be no decrease in use of information sources that are delivered to the residence.

Hypothesis 2 was also supported; the values for the independent variables (health, environmental, and economic constraints) were the same as those for Hypothesis 1; only

the dependent variables differed. The use of sources that were available at the residence, or were delivered to the residence, suffered only slight declines from the past to the present, but overall, a pattern of stability in use from the past to the present prevailed.

Regression analysis supported the hypothesis. Two methods were used to measure the dependent variable. The first method added the rankings for all the proximate channels of distribution used, and subtracted the past from the present. The second method simply counted the number of proximate channels of distribution used, and subtracted the past from the present. Regression analysis supported the hypothesis, regardless of the method used to compute the dependent variable.

Hypothesis 3

H₃. Among older adults who identified pleasure as their primary purpose for reading earlier in life, health, environmental, and economic constraints will show a greater effect on present use of information sources than for the group that identified information as their primary purpose for reading.

In general, Hypothesis 3 was not supported. Simple frequency analyses indicated that only a very small group (N=6) reported that information, or necessity, was their primary purpose for reading earlier in life. The majority

(N=95) indicated that pleasure was their primary purpose for reading earlier in life. Several statistical tests were applied, and none produced significant results.

Similarly, television viewing and radio listening were also analyzed according to the purpose for the activity. In neither instance was there any support for the hypothesis.

One final type of analysis explored the role of education. Here, some support was evident for the hypothesis. The number of years of formal education did seem to influence whether respondents changed their purpose for reading, although the analysis of the hypothesis indicated that the decline in level of reading activity with increasing age was not significantly different for those whose purpose for reading earlier in life was pleasure, rather than information. Since in some instances the groups that were analyzed were very small, conclusive analysis of Hypothesis 3 must wait on replications of the study which analyze the influence of purpose for reading, in particular, and purpose for watching television or listening to the radio with more nearly equal group sizes. On balance, however, the hypothesis was not supported.

Hypothesis 4

H₀4. The higher the educational level, the less likely that there will be a difference between past and present purpose for reading.

Hypothesis 4 was supported; however, the analysis, which divided the sample into groups, produced one small group (N=6) and one very large group (N=95). This meant that results had to be interpreted with caution. Indeed, for this sample, it would seem that the assumption of change was incorrect, and a pattern of stability, rather than change in purpose for reading in adulthood emerges. Alternative hypotheses could be constructed.

As research proceeded, the researcher suspected that measurement of occupational involvement would have added explanatory value to the study. Measurement of this variable would be helpful in future studies.

Limitations of the Study

The limitations of this study are related to the sample selection process. The decision to select the sample from residents of three retirement residences excluded from the sample all those adults over sixty-five living in their own homes, in apartments in the community, or in other types of arrangements. Generalizability was also affected by this decision since the sample population is a small, homogenous group. The results of the study, however, should be generalizable in some respects to similar types of residential settings which are common throughout the United States.

This study is also limited to one geographical area: the city of Denton, in Denton County, Texas. Replications of the study in other geographic areas will be necessary in order adequately to verify the conclusions.

An additional limitation is related to the nature of the research design. A longitudinal design would have been ideal but could not be obtained for this study. Limitations on funding and the fact that such studies require ten or more years caused such a design to be beyond the resources of the researcher. The survey design chosen, however, can prove satisfactory if appropriate caution is exercised in interpreting the results.

Conclusions

This study tended to confirm Hypotheses 1 and 2 and also to confirm the conclusions of other studies that library use, as well as the use of other external channels of information distribution, declines with age. However, reliance on age as an explanatory factor, in and of itself, is fallacious. Instead, it is more beneficial to examine changes in the individual that may vary with age, such as health characteristics, loss of flexibility in use of forms of transportation, and income satisfaction.

Similarly, the relative lack of change in the use of proximate channels of distribution was also confirmed. Again, rather than age, attention should also be paid to

other explanatory factors, such as the features which make proximate channels of information distribution attractive to older adults.

The inability to evaluate thoroughly Hypothesis 3 and the caution needed in interpreting Hypothesis 4 highlighted an alternative assumption, that attitudes toward reading tend to remain stable in adulthood, although the level of reading activity and the use of external channels of distribution may decline due to the influence of a variety of factors.

Further, as the study progressed and data were analyzed, it seemed that some modifications would prove helpful in conducting such research in the future. A tendency was noticed for respondents to rank any alternative method of transportation highly, if a personal car was no longer used. Thus, a different means of measuring that variable might prove more meaningful. The measurement of access to television and radio by a dichotomous variable (0=no, 1=yes) also seemed to limit the ability to measure change. Different means of measuring those variables might also prove valuable.

Also, in conversation, it became apparent that many of the respondents had worked either full-time or part-time during ages 40-55. A measure for occupational participation might add value to further research in this area. Further,

the role of educational level in determining use of channels of distribution needs further exploration.

The results of the tests used to analyze the hypotheses note a decline in the use of external channels of distribution, which require movement outside the residence, but a tendency toward stability in the use of channels of distribution which are available at the residence. The purpose for using an information source, however, seemed to have no particular effect on the use of information sources. The role of educational level does appear to be important, although the results should be interpreted with caution, due to methodological considerations.

Implications of the Study

The results of the literature analysis indicated that library use tended to decline with age. The results of this study indicate that the decline in library use is part of a larger pattern of decline in use of a number of external channels of distribution, due to factors of health, environmental, and economic constraints. Such constraints do not contribute appreciably to a decline in the use of proximate channels of distribution, such as television. Instead, a pattern of stability prevails for those channels of distribution.

The results of this study also indicate that patterns of reading remain stable through adulthood. This is

particularly true of reasons for reading; however, the level of reading activity may decline, although in few cases does reading activity cease entirely. Thus, reading activity continues, although interaction with libraries and other external channels of distribution may decline or cease.

The literature analysis also indicated that what are commonly referred to as library extension services are popular with older adults. Such services include book-mobiles, books by mail, and personal delivery of materials to individual residences or other types of residences for older adults. Some information formats are popular with older adults as well, such as large print, and the recorded formats of the National Library Service for the Blind and Physically Handicapped. However, the review of the literature also indicated that, in general, public libraries do not offer such services in proportion to the number of older adults who might benefit from them. Since little information was available on the use of academic library services or special library services by older adults, the following discussion will concern principally the implications for public libraries.

Demographic projections indicate that, until early in the next century, the aging of the "baby boom" will be felt rather gradually. Then, the numbers of older adults in the population will make an undeniable impact. Should libraries

fail to plan for this, there might be no noticeable impact until early in the next century. Then, however, public libraries might be competing for funds for the provision of service to this group, with a myriad of other types of services, with established records of service to an older adult population (health care services for instance).

As also noted in the literature review and statement of the problem, reading connected with library use is usually a discretionary, not obligatory activity, for older adults. The respondents in this study, however, continued to read and to acquire information through other methods of information acquisition, and are probably not unique in this respect. Indeed, as the results of this study indicate, older adults may choose from a variety of alternatives to the provision of library service to meet their information acquisition needs.

In other areas of service provision (health care, for example), new types of services, like home health care, have developed in the last several years, mainly in response to the needs of older adults. The future will doubtless see the development of innumerable products and services designed to appeal to older adults, including methods of information acquisition and information service provision. Should public libraries not provide services for this growing segment of the population, it is certain that some type of service or agency, either non-profit or for-profit,

will fill the needs of this age group for access to reading materials and methods of information acquisition designed for their unique needs.

In spite of the efforts of a relatively few dedicated professionals, the role to be played by librarians and information science professionals in service provision to older adults largely remains to be determined. At present, the level of interest in the development of services to older adults does not seem commensurate with existing needs in this area, much less future needs. It seems safe to predict that older adults will continue to read and to desire to acquire information; it seems less safe to predict that public libraries, or other types of libraries, will continue to be an important part of that process for older adults, without an increase of efforts in this area by librarians and information scientists.

Suggestions for Further Research

This study provides some information which illuminates the role of several methods of information acquisition, and the use of a variety of channels of distribution for information acquisition by older adults. However, it suffers from a number of limitations, as previously discussed. Further research, utilizing the following suggestions, would provide additional information.

1. Replication of the study, to evaluate its assumptions with larger, more representative samples and in different geographic areas.
2. Replication of the study with minority populations, to ascertain whether there will be differences in outcome.
3. Modification of the study, based on an assumption of stability in the purpose for reading in adulthood.
4. Modification of the study, with different variables, principally occupation (full or part-time work), and selection of new variables used to measure environmental constraints, particularly transportation, access to television, and radio.
5. Modification of the study, with an emphasis on the role of education in the use of methods of information acquisition (reading, television viewing, radio listening), and patterns of use of channels of distribution.

APPENDIX A

INTERVIEW SCHEDULE

INTERVIEW SCHEDULE

PAST PATTERNS

READER IDENTIFICATION AND MOTIVATION--HISTORY

The following questions deal with your patterns of reading and the use of other resources to obtain information from the age of 40 to age 55. Please think carefully only about that period in your life.

1. Complete the following statement by choosing the one phrase which best describes your pattern of reading from age 40 to age 55: During a 6 months' period, I usually _____

Did not read books, newspapers, or magazines. (If answered, skip to Question 3.) (1)

Read newspapers and magazines, but did not read books. (2)

Read 1-3 books. (3)

Read 4-9 books. (4)

Read 10-25 books. (5)

Read more than 25 books. (6)

2. Please pick the phrase that best describes the reason that you read. _____

I did not read (0)

I usually read for information. (1)

[Did you usually read mainly for information necessary in daily life?]

I usually read for pleasure. (2)

[Did you usually read because you enjoyed reading?]

ENVIRONMENTAL CONSTRAINTS

Media Use and Motivation--History

3. Did you have a television for your personal use? _____
(If negative, skip to Question 6.) No (1)
Yes (2)

4. Please pick the phrase that best describes the reason that you watched television.

I did not watch. (0)

I watched television to find out what was going on in the world. (1)

I watched television for pleasure or entertainment. (2)

5. How many hours a day did you watch television?

[Did you watch a morning news show? About how many hours did you watch? _____
Did you watch other shows in the morning? About how many hours? _____
Did you watch a noon news show? About how many hours did you watch? _____
Did you watch other shows in the afternoon? About how many hours? _____
Did you watch an evening news show? About how many hours did you watch? _____
Did you watch other shows in the evening? About how many hours? _____
So you watched approximately _____ hours of television a day from age 40 to 55?]

6. Did you have a radio for your personal use?

(If negative, skip to Question 9.)

No (1)

Yes (2)

7. Pick the phrase that best describes the reason that you listened to the radio.

I did not listen. (0)

I listened to the radio to find out what was going on in the world. (1)

I listened to the radio for pleasure or entertainment. (2)

8. How many hours a day did you usually listen to the radio?

[Did you listen to a morning news show? About how many hours did you listen? _____
Did you listen to other shows in the morning? About how many hours? _____
Did you listen to a noon news show? About how many hours did you listen? _____
Did you listen to other shows in the afternoon? About how many hours? _____
Did you listen to an evening news show? About how many hours did you listen? _____]

(Question continues on next page.)

Did you listen to other shows in the evening?
About how many hours? _____
So you listened to the radio approximately _____
hours a day from age 40 to age 55?]

[If unable to estimate, try next question.]

Did you listen less than 15 minutes a day? _____

No (0)

Yes (1)

9. Did you have one of the receivers supplied by the
Radio Reading Service? (If negative, skip to Question
12.) _____

No (1)

Yes (2)

10. Pick the phrase that best describes the reason
that you listened to the Radio Reading Service. _____

I did not listen. (0)

I listened to the Radio Reading Service to find
out what was going on in the world. (1)

I listened to the Radio Reading Service for plea-
sure or entertainment. (2)

11. How many hours a day did you usually listen to
the Radio Reading Service? _____

[Did you listen to a morning news show? About
how many hours did you listen? _____

Did you listen to other shows in the morning?
About how many hours? _____

Did you listen to a noon news show? About how
many hours did you listen? _____

Did you listen to other shows in the afternoon?
About how many hours? _____

Did you listen to an evening news show? About
how many hours did you listen? _____

Did you listen to other shows in the evening?
About how many hours? _____

So you listened to the Radio Reading Service
approximately _____ hours a day from age 40 to 55?]

Transportation Use and Convenience--History

12. Transportation is often necessary to reach many places where you can obtain books, newspapers, and magazines. How did you get to such places when you were age 40 to age 55? Choose the answer that describes what you did most of the time.

- I walked. _____
I used public transportation. _____
[You may have used the train, bus, or taxi.] _____
I rode in neighbors' or friends' cars. _____
Someone drove me in the family car. _____
I drove myself in my personal or family car. _____

13. Convenience is also an important factor in the use of transportation. Which of the following methods of transportation would you have thought was the most convenient for you to use to get materials to read when you were age 40 to age 55, regardless of whether or not you used it? (Rank, assigning 5 to the most convenient and numbers through 1 as needed. Assign 0 to those not used.)

[Which would be the next most convenient?__ The next?__ The next?__ Which would have been the least convenient for you to use?]

- Walking. _____
Using public transportation. _____
[You may have used the train, bus, or taxi.] _____
Riding in neighbors' or friends' cars. _____
Having someone drive me in my car. _____
Driving myself in my personal or family car. _____

PERSONAL CONSTRAINTS: HEALTH STATUS AND INCOME-- HISTORY

The next questions are about some factors that might have affected the way you acquired reading materials from ages 40 to 55. Please respond to the answer that describes your situation most of the time from age 40 to age 55.

14. Compared to other people my own age, I would say my general health was:

- Very good (5) _____
Good (4)
Fair (3)
Poor (2)
Very poor (1)

15. I could read newspaper-size print with: _____

- Could not read.(0)
- A great deal of difficulty.(1)
- Some difficulty.(2)
- A little difficulty.(3)
- No difficulty.(4)

16. I could hear everyday conversations with: _____

- Could not hear.(0)
- A great deal of difficulty.(1)
- Some difficulty.(2)
- A little difficulty.(3)
- No difficulty.(4)

17. I could move around to perform everyday activities with: _____

- Could not move.(0)
- A great deal of difficulty.(1)
- Some difficulty.(2)
- A little difficulty.(3)
- No difficulty.(4)

18. Please indicate your level of agreement with this statement: _____

I had enough money to do all of the things that I wanted to do.

- Strongly agree (4)
- Agree (3)
- Disagree (2)
- Strongly disagree (1)

19. Did you have a record player for your personal use? _____

- No (1)
- Yes (2)

20. Did you have a tape recorder or cassette player for your personal use? _____

- No (1)
- Yes (2)

21. Did you have one of the cassette players or tape recorders supplied by the National Library Service for the Blind and Physically Handicapped? _____

- No (1)
- Yes (2)

22. Did you have one of the record players supplied by the National Library Service for the Blind and Physically Handicapped? _____

- No (1)
- Yes (2)

UTILIZATION OF SOURCES--HISTORY

23. I would like you to think about when you were between the ages of 40 and 55. Then think about the places where you obtained materials for reading or information that required you to leave your residence.

[Which of these places did you visit most often? (Assign an 8.) Which did you visit next most often? (Repeat) Assign numbers through 1, as needed, and zeros to locations that were not used.]

- Bookstore _____
- Used/Secondhand Bookstore _____
- Newsstand _____
- Department store _____
- [Did you buy reading materials at stores such as Dillard's?] _____
- Discount store _____
- [Did you buy reading materials at stores such as K-Mart?] _____
- Grocery store _____
- Garage sale/flea market _____
- Public library _____
- Academic library _____
- Church library _____
- Borrowed from friends/relatives _____
- [Did you go to visit relatives/friends and borrow something to read?] _____

24. For the period when you were between the ages of 40 and 55, think about the ways of getting reading materials or information through methods that were available at your residence.

[Which of these methods did you use most often? (Assign an 8.) Which did you use next most often? (Repeat.) Assign numbers through 1, as needed, and zeros to methods that were not used.]

- Postal delivery _____
- Newspaper delivery _____
- Personal collection _____
- [Did you often read materials that already belonged to you?] _____
- Residential collection _____
- [Did you have other materials available at your home?] _____
- Radio _____
- Radio Reading Service _____
- Television _____
- Having someone read to me _____
- Brought by friends/relatives _____
- [Did relatives or friends often bring you materials to read?] _____

CURRENT PATTERNS

READER IDENTIFICATION AND MOTIVATION--CURRENT

Now I would like you to think about your current reading habits and the reasons that you read.

25. Please pick the phrase that best completes this statement: During a 6 months' period, I usually _____

Do not read books, newspapers, or magazines. (If answered, skip to Question 27.) (1)

Read newspapers and magazines, but do not read books. (2)

Read 1-3 books. (3)

Read 4-9 books. (4)

Read 10-25 books. (5)

Read more than 25 books. (6)

26. Please pick the phrase that best describes the reason that you read. _____

I do not read. (0)

I usually read for information. (1)

[Do you usually read mainly for information necessary in daily life?]

I usually read for pleasure. (2)

[Do you usually read because you enjoy reading?]

ENVIRONMENTAL CONSTRAINTS

Media Use and Motivation--Current

27. Do you have a television for your personal use? _____

No (1)

Yes (2)

28. Does your residence have a television that you can watch? _____

Do not know (0)

No (1)

Yes (2)

29. Please pick the phrase that best describes the reason that you watch television. _____

I do not watch. (0)

I watch television to find out what is going on in the world. (1)

I watch television for pleasure or entertainment. (2)

30. How many hours a day do you usually watch television? _____

[Do you watch a morning news show? About how many hours do you watch? _____

Do you watch other shows in the morning? About how many hours? _____

Do you watch a noon news show? About how many hours do you watch? _____

Do you watch other shows in the afternoon? About how many hours? _____

Do you watch an evening news show? About how many hours do you watch? _____

Do you watch other shows in the evening? About how many hours do you watch? _____

So you watch approximately _____ hours of television a day?

31. Do you have a radio for your personal use? _____

No (1)

Yes (2)

32. Does your residence own a radio that you can listen to? _____

Do not know (0)

No (1)

Yes (2)

33. Pick the phrase that best describes the reason that you listen to the radio. _____

I do not listen. (0)

I listen to the radio to find out what is going on in the world. (1)

I listen to the radio for pleasure or entertainment. (2)

34. How many hours a day do you usually listen to the radio? _____

[Do you listen to a morning news show? About how many hours do you listen? _____

Do you listen to other shows in the morning? About how many hours? _____

Do you listen to a noon news show? About how many hours do you listen? _____

Do you listen to other shows in the afternoon? About how many hours? _____

Do you listen to an evening news show? About how many hours do you listen? _____

(Question continues on next page.)

Do you listen to other shows in the evening?
About how many hours? _____
So you listen to the radio approximately _____
hours a day?]

[If unable to estimate, try the next question.]

Do you listen less than 15 minutes a day? _____

No (0)

Yes (1)

35. Do you have one of the receivers supplied by the
Radio Reading Service? (If answered no, skip to 38). _____

No (1)

Yes (2)

36. Pick the phrase that best describes the reason
that you listen to the Radio Reading Service. _____

I do not listen. (0)

I listen to the Radio Reading Service to find
out what's going on in the world. (1)

I listen to the Radio Reading Service for plea-
sure or entertainment. (2)

37. How many hours a day do you usually listen to the
Radio Reading Service? _____

[Do you listen to a morning news show? About
how many hours do you listen? _____

Do you listen to other shows in the morning?
About how many hours? _____

Do you listen to a noon news show? About how
many hours do you listen? _____

Do you listen to other shows in the afternoon?
About how many hours? _____

Do you listen to an evening news show? About
how many hours do you listen? _____

Do you listen to other shows in the evening?
About how many hours? _____

So you listen to the Radio Reading Service
approximately _____ hours a day?]

Transportation Use and Convenience--Current

38. Transportation is often necessary to get to many places where you can obtain books, newspapers, and magazines. Choose the answer that describes what you do most of the time.

- I walk. _____
- I use the van provided by my residence. _____
- I use SPAN. _____
- I use public transportation. _____
- [You may use taxis.] _____
- I ride in neighbors' or friends' cars. _____
- Someone drives me in the family car. _____
- I drive myself in my personal or family car. _____

39. Convenience is also an important factor in the use of transportation. Please indicate which of the following methods of transportation would be the most convenient for you to use to get materials to read, regardless of whether or not you use it. (Rank, assigning 5 to the most convenient and numbers through 1 as needed. Assign 0 to those not used.)

[Which would be the next most convenient?__ The next?__ The next?__ Which would have been the least convenient for you to use?]

- Driving myself in my personal or family car. _____
- Having someone drive me in my car. _____
- Riding in neighbors' or friends' cars. _____
- Using public transportation. _____
- [You may use taxis.] _____
- Using SPAN. _____
- Using the van provided by my residence. _____
- Walking. _____

PERSONAL CONSTRAINTS: HEALTH STATUS AND INCOME--CURRENT

The next questions are about some factors that might cause difficulty for you in acquiring reading materials. Please respond to the answer that best describes your situation.

40. Compared to other people my own age, I would say my general health is:

- Very good (5) _____
- Good (4) _____
- Fair (3) _____
- Poor (2) _____
- Very poor (1) _____

41. I can read newspaper-size print with: _____

- Could not read. (0)
- A great deal of difficulty. (1)
- Some difficulty. (2)
- A little difficulty. (3)
- No difficulty. (4)

42. I can hear everyday conversations with: _____

- Could not hear. (0)
- A great deal of difficulty. (1)
- Some difficulty. (2)
- A little difficulty. (3)
- No difficulty. (4)

43. I can move a round to perform everyday activities with: _____

- Could not move. (0)
- A great deal of difficulty. (1)
- Some difficulty. (2)
- A little difficulty. (3)
- No difficulty. (4)

44. Please indicate your level of agreement with this statement: _____

I have enough money to do all the things that I want to do.

- Strongly agree (4)
- Agree (3)
- Disagree (2)
- Strongly disagree (1)

45. Do you purchase reading materials more or less frequently now than when you were age 40 to 55? _____

- More frequently (3)
- About the same (2)
- Less frequently (1)

46. Please indicate your level of agreement with this statement: _____

Price is a more important consideration when I buy reading materials now than when I was 40 to 55.

- Strongly agree (6)
- Agree (5)
- Slightly agree (4)
- Slightly disagree (3)
- Disagree (2)
- Strongly disagree (1)
- Not applicable (0)

47. Do you have a record player for your personal use? _____

- No (1)
- Yes (2)

48. Do you have a cassette player or tape recorder for your personal use? _____

- No (1)
- Yes (2)

49. Does your residence have a cassette player or tape recorder that you can use? _____

- Do not know (0)
- No (1)
- Yes (2)

50. Do you have one of the cassette players or tape recorders supplied by the National Library Service for the Blind and Physically Handicapped? _____

- No (1)
- Yes (2)

51. Do you have one of the record players supplied by the National Library Service for the Blind and Physically Handicapped? _____

- No (1)
- Yes (2)

UTILIZATION OF SOURCES--CURRENT

52. For the next question, I would like you to think about the past 6 months. Then think about the places where you obtain reading materials or information that require you to leave your residence.

[Which of these places do you visit most often?
 (Assign an 8.) Which do you visit next most often?
 (Repeat) Assign numbers through 1, as needed, and zeros to locations that are not used.]

- _____
- Bookstore _____
 - Used/Secondhand Bookstore _____
 - Newsstand _____
 - Department store _____
 - [Do you buy reading materials at stores such as Dillard's?] _____
 - Discount store _____
 - [Do you buy reading materials at stores such as K-Mart?] _____
 - Grocery store _____
 - Garage sale/flea market _____
 - Public library _____
 - Academic library _____
 - Church library _____
 - Borrowed from friends/relatives _____
 - [Do you often go to visit relatives or friends and borrow something to read?] _____

53. Now, for the past 6 months, I would like you to think about the ways that you obtained reading materials or information through methods that are available at your residence.

[Which of these methods do you use most often?
 (Assign an 8.) Which do you use next most often?
 (Repeat) Assign numbers through 1, as needed, and zeros to methods that are not used.]

- _____
- Postal delivery _____
 - Newspaper delivery _____
 - Personal collection _____
 - [Do you often read materials that already belong to you?] _____
 - Residential collection _____
 - [Do you have other materials available?] _____
 - Radio _____
 - Radio Reading Service _____
 - Television _____
 - Having someone read to me _____
 - Brought by friends/relatives _____
 - [Do relatives or friends often bring you materials to read?] _____

BACKGROUND

54. Sex: Male (1)
 Female (2) _____
55. Marital Status: Married (1) _____
 Never Married (2) _____
 Widowed (3)
 Divorced (4)
56. How many years of formal education have you had?
(Ask for number of years completed at each level.) _____
- Did you finish elementary school? _____ years.
Did you finish junior high school? _____ years.
Did you finish high school? _____ years.
Did you finish any years of college?
____ Undergraduate _____ Master's _____ Ph.D
____ Post-Doctorate]
57. How old are you? (If unanswered, try 58.) _____
58. Please choose the category that best describes
your age: _____
- 65-69 (1)
70-74 (2)
75-79 (3)
80-84 (4)
85-89 (5)
90-94 (6)
95-99 (7)
100-104 (8)
105-109 (9)
110-114 (10)
59. Race: (Obtain by observation.) _____
Caucasian (1)
Black (2)
Hispanic (3)
Asian (4)
Other (5)
60. Residence: (Obtain by observation.) _____
Fairhaven (1)
Heritage Oaks (2)
Denton Good Samaritan Village (3)

UTILIZATION OF SOURCES--HISTORY

23. For the next question, I would like you to think about when you were between the ages of 40 and 55. Then think about the places where you obtained reading materials or information that required you to leave your residence. Rank the 8 places you used most often in the order in which you used them. For the location that you used most often, give an 8, the one you used next most often a 7, and so on. Give a zero to places you never used.

Bookstore _____
 Used/Secondhand Bookstore _____
 Newsstand _____
 Department store _____
 Discount store _____
 Grocery store _____
 Garage sale/flea market _____
 Public library _____
 Academic library _____
 Church library _____
 Borrowed from friends/relatives _____

24. For the next question, I would like you to think again about when you were between the ages of 40 and 55. Then think about the ways that you obtained reading materials or information through methods that were available at your residence. Rank each method in the order in which you used it. For the method that you used most often, give an 8, the one you used next most often a 7, and so on. If you never used a particular method, give it a zero.

Postal delivery _____
 Newspaper delivery _____
 Personal collection _____
 Residential collection _____
 Radio _____
 Radio Reading Service _____
 Television _____
 Having someone read to me _____
 Brought by friends/relatives _____

UTILIZATION OF SOURCES--CURRENT

52. For the next question, I would like you to think about the past 6 months. Then think about the places where you obtain reading materials or information that require you to leave your residence. Rank the 8 places you use most often in the order in which you use them. For the location that you use most often, give an 8, the one you use next most often a 7, and so on. Give a zero to places you never use.

- Bookstore _____
- Used/Secondhand Bookstore _____
- Newsstand _____
- Department store _____
- Discount store _____
- Grocery store _____
- Garage sale/flea market _____
- Public library _____
- Academic library _____
- Church library _____
- Borrowed from friends/relatives _____

53. For the next question, I would like you to think about the ways that you obtain reading materials or information through methods that are available at your residence. Rank each method in the order in which you use it. For the method that you use most often, give an 8, the one you use next most often, a 7, and so on. Give methods that you never use a 0.

- Postal delivery _____
- Newspaper delivery _____
- Personal collection _____
- Residential collection _____
- Radio _____
- Radio Reading Service _____
- Television _____
- Having someone read to me _____
- Brought by friends/relatives _____

CASE NO. _____

58. Please choose the category that best describes your age: _____

- 65-69 (1)
- 70-74 (2)
- 75-79 (3)
- 80-84 (4)
- 85-89 (5)
- 90-94 (6)
- 95-99 (7)
- 100-104 (8)
- 105-109 (9)
- 110-114 (10)

APPENDIX B

SITES FOR THE STUDY

SITES FOR THE STUDY

Denton has five retirement residences for older adults: Fairhaven, Heritage Oaks, The Vintage, Denton Good Samaritan Village, and Lake Forest Good Samaritan Village. All provide retirement housing in the form of apartments, duplexes, or fourplexes. The Vintage, Denton Good Samaritan Village, and Lake Forest Good Samaritan Village also have skilled nursing care facilities.

Fairhaven, Heritage Oaks, and Denton Good Samaritan Village were chosen as sites for this study. All have residential collections for use by their residents, and are well within the city limits.

Fairhaven was opened in 1965 after a city-wide fund-raising drive led by the Business and Professional Women's Club of Denton. Situated on 3.3 acres, Fairhaven is a non-profit retirement home for the active and independent elderly. An individual must be mentally alert, 62 years of age or over, and physically independent to be eligible for residence. Within a central unit, it has forty-seven rooms, each with emergency call button and private bath, with two rooms for resident service directors.

Since there are no cooking facilities in individual's rooms, residents take three meals a day in the central dining room. Also available for residents are a chapel, a beauty/barber shop, and launderette. Residents may pick up

their mail at the mail boxes in the entrance hall or may take delivery at the Denton post office.

Many residents maintain their own cars, but transportation is also available through SPAN. Landscaping includes outdoor decks; a wooded area with stream, fishpond, and gazebo; and individual garden areas for use by residents.⁴¹¹

Four lounges are available for use by residents, with one, the "Library Lounge," housing the residential book collection. The collection, built largely by donations, is uncataloged and housed in shelving 18' wide by 6' 5" tall. It includes 150 hardback books and 200 paperback books, both non-fiction and fiction, including recent best-sellers, historical fiction, and romances; 100 volumes of Reader's Digest Condensed Books, through recent years; the Bible in several versions, as well as one complete version on cassette; issues of Selections from the Reader's Digest in the large type edition for the past five years, and a world atlas. Miscellaneous items include an old Compton's Encyclopedia with two missing volumes and yearbooks through 1968, and old volumes of the Yucca, the yearbook of North Texas State University (now called the University of North Texas). The books are constantly updated through new donations by residents and others. Current newspapers and

⁴¹¹This Is Fairhaven, (Denton, Tex.: Fairhaven, n.d.), 1-3.

magazines are also placed on tables in the lounges by residents, for use by other residents.

A console stereo with radio and eight-track tape player and a cassette tape player is also available in the "Library Lounge." The main lounge has a color television that is wired for cable for use by residents. Cable may also be received individually by residents if they desire.

Heritage Oaks was opened in 1979 for persons 62 years of age and over. It is subsidized by the U.S. Department of Housing and Urban Development and consists of 140 units on 9.8 acres. Included are six one-bedroom apartments adapted for wheelchair residents, and six apartments in a congregate unit. Handicapped or disabled individuals are eligible for residence at age 55. To qualify for residency, a single person's gross annual income cannot exceed \$12,450, and a two-member family's gross annual income cannot exceed \$14,250.⁴¹²

Apartments are grouped in rows, or fourplexes. Each apartment contains a living room, kitchen with dining area, bedroom(s), bathroom with vanity, closet and storage areas, central heat and air with individual thermostats, tiled floors, double insulated walls, windows and doors, and emergency light and buzzer. Apartments are unfurnished, but a refrigerator, electric range, venetian blinds and curtain

⁴¹²Denton Housing Authority, Heritage Oaks, (Denton, Tex.: Denton Housing Authority, n.d.).

rods, antenna hook-up, telephone hook-up, and deadbolt security locks are included.

SPAN provides a noontime meal in the Community Room for residents who choose to eat there, and also provides transportation for residents, although many maintain cars. Two laundries are available, and groundskeeping and maintenance are provided. Mail is delivered to boxes adjacent to the Community Room. Residents may garden in the yard of their apartment, and a picnic area and Jim Carter Memorial Park are also available for their use.⁴¹³

The Community Room houses the "Heritage Oaks Library" in shelving 7'10" wide by 6' 8" tall. The collection, built primarily through donations, consists of 360 hardbacks and paperbacks in non-fiction categories of history, biography, self-help, and inspiration and fiction categories of historical fiction, poetry, and mystery. Also included are 60 Reader's Digest Condensed Books, several versions of the Bible and New Testament, editions of the Harvard Classics, and Baptist Hymnals. Recent magazines include National Geographic, Popular Mechanics and Selections from the Reader's Digest in the large type edition. Seating is available at adjacent tables and chairs.

Residents also exchange magazines through the laundry room adjacent to the Community Room, by bringing recent

⁴¹³Ibid.

issues and leaving them on a convenient table. Residents are expected to return items to the Community Room, but not necessarily to the laundry room.

A color television and video cassette recorder are also available in the Community Room, and movies on video cassette are rented and shown regularly on Friday afternoons. A radio in the apartment manager's office can be listened to by residents--in case of weather emergencies, for instance--but is not available for loan. A cassette tape player, owned by the administrator, is available on request for use by groups. Cable is not received.

Denton Good Samaritan Village was opened in 1976, and is one of over 200 nonprofit retirement/health care communities operated by the Good Samaritan Society in the United States. An individual must be at least 62 years of age to reside at the Village--although a spouse may be a few years younger--be ambulatory and mentally alert. The campus covers several acres. Samaritan Central and Samaritan South are mid-rise apartment buildings connected by an enclosed, central air-conditioned walkway. Samaritan North consists of duplexes and triplexes, located at some distance from Samaritan Central and South. A variety of floor plans are available, with and without kitchen facilities. Residents of Samaritan Central and North usually take at least one meal a day in the central dining room. Skilled nursing care is available in the Health Center, if needed.

Residents furnish their own apartments or duplexes/triplexes, but standard features include individually controlled heating and air conditioning, utilities provided (except personal telephone), residential apartment entrances, handrails in bathrooms and hallways and other safety features, wall-to-wall carpet, and lined drapes.

Transportation is available through a van provided by the Village or SPAN, although many residents maintain their own cars. Mail is delivered to boxes near the entrance to Samaritan Central, and to boxes located near the duplexes and triplexes in Samaritan North. Laundry service, laundry rooms, maid service, security, maintenance, and an emergency call system are also provided. A multipurpose auditorium is available for a variety of special activities, as are an in-house resident store and activity room. Residents may also have garden plots, if desired.⁴¹⁴

The library, built largely by donations, is housed in an area adjacent to the multi-purpose auditorium. Two double-sided bookcases, 6' 1" wide by 5' 9" tall, provide shelving for the nonfiction collection of hardback books, arranged by the Dewey Decimal system. One wall bookcase, 12' wide by 7' 6" tall, provides shelving for the fiction collection of hardback books. A system for unsupervised

⁴¹⁴The Denton Good Samaritan Village, Denton, Texas,
(Denton, Tex.: Good Samaritan Society, n.d.).

check-out and return is positioned on the same wall. Two floor-standing racks provide shelving for fiction and non-fiction paperbacks.

Most of the Dewey classes are represented in the non-fiction collection of hardback books, while past and present best-sellers and mysteries dominate the fiction hardbacks. Romance and mystery titles predominate in the fiction paperbacks, while humor and self-help categories are popular in non-fiction paperbacks. Miscellaneous items include a set of Great Books housed in their own small bookcase on one wall, an atlas, an unabridged dictionary, two old sets of encyclopedias, some issues of Selections from the Reader's Digest in the large type edition, and some stored jigsaw puzzles.

Recent issues of the Christian Science Monitor are available on a table, along with recent issues of Time, Changing Times, Modern Maturity, and Southern Living. Seating is available at three tables with four chairs each, and in four lounge chairs. One reading table has a large magnifying glass with a flexible arm attached to aid reading. Residents also leave recent issues of magazines on hall and lounge tables throughout Samaritan Central and South.

A large-screen television with video cassette recorder is also available for use by residents. Video cassette movies are regularly scheduled and shown on the large-screen

television, and residents also gather to watch special events, such as football games, on this television. Cable can be received, if desired, by residents of Samaritan North and Samaritan South, but is not available in Samaritan Central.

APPENDIX C

BOOK READING AND THE USE OF CHANNELS OF DISTRIBUTION

BOOK READING AND THE USE OF CHANNELS OF DISTRIBUTION

In the course of an interview, respondents often made comments about their book reading habits and the use of specific locations for the acquisition of reading materials, which added explanatory value to their answers. Since the interview schedule was not structured to allow statistical analysis of such comments, they were recorded by the interviewer, in space on the form, and appropriate notation was made for the proper time period: past (ages 40-55) or present (ages 65 and over). These comments may offer additional insights to the sample data, and provide information of use in other studies.

Age Range 40-55

Book Reading

General Comments

Several (N=11) respondents commented that they were encouraged to read in childhood by one or both parents. One even reported that she was named after a book her father read before she was born: Inez, or, A Tale of the Alamo. One remembered that her father had an excellent library. Others (N=4) remembered reading from an early age. One woman, without any formal education, taught herself to read.

Three respondents reported that reading fed a desire to further their education, including one who became more aware of reading through helping her children with their school-

work. All reported that circumstances had prevented the completion of their education or seeking higher education.

Three respondents reported that reading was important to them, but two of them stated that time for reading was limited. Three respondents stated that other activities were preferred over reading.

Eight respondents indicated that they read extensively for work-related or professional purposes. One respondent, a former research chemist, read at least twenty hours a week and said "Reading was a required discipline."

Purpose for Reading

Five respondents indicated that they read for informational or non-fiction content, although they regarded reading as a pleasurable activity. Two indicated that they read only when necessary, and that reading was not a favorite activity for pleasure. One respondent noted that pleasure was the major motivation for reading books and magazines. Three respondents indicated that they had less money to spend to buy books or other reading materials, and one of them indicated that lack of money prevented use of a bookstore.

Use of External Channels of Distribution

Respondents often had comments about the use of specific external channels of distribution during the past period (ages 40-55). Three respondents indicated that

living in a small community or rural area limited their access to books. The two respondents living in small towns traveled to larger communities to obtain materials, and one of these respondents belonged to a local literary society and used an available county library. The respondent who lived on a farm reported having no access to books.

One respondent commented on a preference for buying books at a bookstore rather than borrowing them from friends, and also indicated a dislike for lending books. Another respondent worked as a volunteer at a Christian bookstore.

Public Library

Twelve respondents made comments about use of the public library during this period, eleven generally positive, indicating that they were library users, and one slightly negative, indicating that the library was too far away, prohibiting use.

Of the eleven indicating use, three associated use with childhood, one with her own childhood, and one with the childhood of now grown children. Another indicated that her husband and children brought her books from the library.

Four users commented on their distance from the library. Three indicated that they were close enough to walk, and one indicated that, although living on a farm outside Denton, at that time (ages 40-55), it was possible

to call and renew books over the telephone, which was regarded as a positive factor promoting use of the public library.

Six respondents stated that they had used a bookmobile in the past, while living in other towns or cities. One noted that the bookmobile was helpful, since it made it easier to return books.

Other External Channels of Distribution

Several other external locations elicited comments regarding their use during ages 40-55. Two respondents commented on used or secondhand bookstores. One got Christian books, and another liked the trading feature often associated with such stores, and indicated that finances kept her from using a bookstore. One indicated that use of a department store book section was preferred.

Four respondents indicated that the grocery store was an important source for specific magazines. Two purchased Woman's Day, and one of these also purchased Family Circle. One purchased True Stories, and one purchased Life.

Three respondents reported that reading specialized periodicals was an important use for academic libraries. Two respondents reported use of scientific and technical libraries, which were not included in the list of external channels of distribution.

Several other types of locations or ways of obtaining reading materials were not considered in the list of external channels of distribution but were mentioned by respondents. Four respondents indicated that they used an elementary or junior high school library, and one indicated that he used a high school library. One respondent used a rental library, and one respondent indicated reading newspapers and magazines at the hairdresser's. Two respondents indicated that they had belonged to literary clubs which met socially for book reviews.

Proximate Channels of Distribution

Comments were sometimes made about proximate channels of distribution. Two respondents who lived in rural areas indicated that they drove to get their mail at the post office. Remarks pertaining to television are mentioned in Appendix E, and comments pertaining to radio and the Radio Reading Service are in Appendix F.

Ordering books from mail order sources or book clubs was a relatively popular way to obtain reading materials during ages 40-55, with quite a few respondents (N=20) noting that they obtained books through the mail from book clubs or other mail order sources (see table 106). A few (N=3) did not indicate a specific club, and a few (N=3) indicated that they ordered from more than one. Since so few males are represented in the study, their preferences

are noted if at least one male indicated using a mail order source or book club, by a single asterisk (*).

Table 106.--Reported use of mail order sources or book clubs, ages 40-55.

Better Homes and Gardens Book Club (1)	Doubleday Book Club (1)
Book-of-the-Month Club (12)*	Heritage Book Club (1)
Cookbook Club (2)	Literary Guild (2)
	Mystery Book Club (1)
	Reader's Digest (1)**

**ordered books, but not Reader's Digest Condensed Books

Age Range 40-55

Fiction and Nonfiction

Fiction

Respondents sometimes indicated that they read specific categories of fiction during ages 40-55 (see table 107). In some instances, they mentioned specific authors and titles that had been particular favorites in that period (see table 108). The popularity of the Reader's Digest Condensed Books format was indicated by the fact that a large number of respondents (N=38) indicated that they had subscribed in this period (ages 40-55). Although some categories may overlap in terms of content, they are related as respondents dictated them. The numbers in parentheses are the number of respondents mentioning a category. Respondents often mentioned more than one subject category, or specific authors and titles.

Table 107. --Reported categories of fiction, ages 40-55.

Adventure (1)	Historical fiction (9)
Best-sellers (4)	Poetry (1)
"Classics" (1)	Romances (2)
Detective fiction (3)	Westerns (4)

Table 108.--Reported fiction authors and titles, ages 40-55.

Zane Grey	<u>Riders of the Purple Sage</u>
Louis L'Amour	.....
Emilie Loring	.....
Edison Marshall	<u>American Captain</u>
	<u>The Lost Colony</u>
Margaret Mitchell	<u>Gone With the Wind</u>
Harriet Beecher Stowe	<u>Uncle Tom's Cabin</u>
.....	<u>Anthony Adverse</u>

Non-Fiction

Respondents also indicated interest in a variety of non-fiction categories during ages 40-55 (see table 109). Although some categories may overlap in terms of content, they are related as respondents dictated them. The numbers in parentheses are the number of respondents mentioning a category. Respondents often mentioned more than one subject category, or specific authors and titles.

Age Range 65+

Book Reading

General Comments

For the period ages 65 and over, five respondents made positive comments indicating that reading was a favorite pastime. One of the five indicated that reading was a way

Table 109.--Reported non-fiction categories, ages 40-55.

Adventure (1)	History (4)
Anthropology (2)	Metaphysics (1)
Autobiography (1)	Philosophy (1)
Biography (6)	Political Science (1)
Chemical Engineering (1)	Psychology (2)
Chemistry (1)	Reference (2)
Cookbooks (1)	Religion (6)
Crafts (2)	Science (1)
Food (1)	Sewing (1)
Geography (1)	Sociology(1)
Health (1)	Travel (1)

of satisfying curiosity, and another indicated that she was reading more now than in the years just after retirement. Three respondents made negative comments indicating that they disliked the occurrence of extensive descriptions of sex and obscene language in books.

Two respondents indicated reasons for purchasing books more frequently in the present than in the past. Both indicated that they have more time to read now, and as a consequence purchased books more frequently, and one of the two indicated that more money was available as well, resulting in more frequent book purchasing in the present than in the past. One respondent who purchased books at about the same level as in the past, indicated selectivity in purchasing books, and "buys things to read if I think they're worthwhile."

Eight respondents commented that they purchased books less frequently in the present than in the past. Of the six

giving specific reasons, one indicated that a fixed income caused less purchasing of books. One purchased religious books only as gifts, and the respondent who used the National Library Service for the Blind and Physically Handicapped indicated no need to purchase books. Three respondents stated that the necessity of storing books and a lack of storage space were disincentives to purchasing and keeping books.

Influences on Level of Reading Activity at Ages 65 and Over

Visual Difficulties

Quite a few (N=30) respondents specifically commented on visual problems which caused problems with reading. However, reading activity did not necessarily decline.

Four respondents indicated that they read more in the present than in the past, in spite of visual problems. One had to select books carefully according to the print quality. Another indicated that print tended to blur, and another was a user of the National Library Service for the Blind and Physically Handicapped.

Seven respondents indicated that they continued to read at the same level in the present as in the past, in spite of visual problems. Three indicated that their eyes tire. One of the three used large print. Another respondent who read at the same level as in the past also used large print. Two were users of the National Library Service for the Blind and

Physically Handicapped. Another continued to read at the same level as in the past, but had not used external channels of distribution in the present because of eye problems.

Nineteen respondents indicated that the amount of reading they do has decreased from the past, largely due to eye problems. Three indicated that they do not read at all. Ten indicated that they now read only newspapers and magazines. Six continued to read books.

Six respondents indicated only that they had poor vision. Six indicated that cataracts or less than perfect results with cataract surgery were responsible for reading difficulties. Two others had cataracts and other eye problems. Two had macular degeneration. Two complained of retinal problems, one of whom had his wife read to him. Two complained of tired eyes, and one that print blurred. Another said reading was done much more slowly in the present than in the past. One respondent indicated that severe visual problems made it imperative that reading be done only when necessary.

Two indicated that reading was an activity they missed, and one indicated that if it became necessary, consideration would be given to using the National Library Service for the Blind and Physically Handicapped. Two indicated that large print helped, one of whom also indicated use of a magnifying glass.

A significant number reported that large print had become more important in the present. Nearly one-quarter (N=20) reported that large print was an important format for them. A significant minority (N=15) read Selections from the Reader's Digest in the large type edition, and a few (N=7) read Guideposts in large print. The Bible in large print was helpful for two respondents. Five respondents were aware of the large print collection at Emily Fowler Public Library, and had used it extensively in the past, but had since ceased driving their own cars and no longer felt that they could use it. One individual had used the large print available from the Texas State Library Division for the Blind and Physically Handicapped. Reading aids, such as magnifiers, were also more important.

Table 110.--Reported use of large print and reading aids, ages 65+.

Floor standing magnifier (4)	Magnifying glass (21)
Large print (20)	

Physical Mobility and Transportation

Problems with personal physical mobility were indicated by two respondents for the present period, with contradictory results. One had problems with arthritis in the neck, which had caused a decrease in reading. Another found it very difficult to get around, and consequently the

level of reading had increased, since participation in other activities was limited.

The inability or limited ability to drive, because of visual problems or other reasons, was mentioned by four respondents as a disincentive to reading. Referring to transportation, one respondent said, "The way you're able to get around makes a lot of difference in what you do for reading." One of the four respondents indicated that she was able to continue reading at a high level because her daughter brought her books.

Other Influences on the Level of Reading Activity at Ages 65 and Over

Two respondents indicated that their inability to concentrate or a poor attention span made it difficult to read books. Two respondents indicated that grief over the death of a spouse had caused a loss of interest in reading.

Five respondents indicated that other activities competed with time for reading; four of the five read less, and one read at the same level. One worked at a part-time job, three were active volunteers, and one preferred using available free time to visit with friends.

Use of External Channels of Distribution

Respondents also commented on the use of specific external channels of distribution for the present period (ages 65 and over). One respondent indicated enjoying

browsing, although seldom purchasing, in a bookstore in the mall.

Public Library

Almost one quarter (N=20) of the respondents made comments about the public library. Six respondents indicated that they continued to use the public library. Of the six, one went every two weeks, and indicated that an inability to use the library would be a loss. However, only three continued to go in person. The remaining three sent someone (an adult child or spouse) to the library for them. One additional male respondent browses in the library while his wife attends meetings, but usually does not check out books.

Eight respondents indicated that either lack of transportation or driving only when necessary was the major reason they no longer used the public library. One commented, "The day you lose your car is the day you lose your independence." Two of the nine respondents drove only when necessary. Three of the nine respondents commented that they previously used the library extensively for large print, but no longer had their cars and no longer had access to the library. Another respondent, although not a large print user, commented on the need for the library to be physically accessible and to have large print in the collection.

Three respondents, including one of the users, disliked the deadline for returning books to the library. One of the three indicated that travel made it difficult to return books on time. Another respondent indicated that the library was a separate trip, out of the way of many other destinations.

Seven respondents thought a bookmobile would be a good idea for older adults. One respondent stated that a bookmobile would make it easier to return books. Another, who had a serious back problem and difficulties with accessibility, thought a bookmobile would make it easier to obtain library books. Another thought a bookmobile could deliver large print and cassettes.

Other External Channels of Distribution

Four respondents indicated use of a secondhand bookstore for the present period. Three of them indicated that they liked being able to get a lot of books at one time, with no time limit on returning them. One of the three had a daughter take her, and another was an avid reader of Harlequin and Silhouette romances. The remaining respondent indicated having problems returning books on time to the public library, and preferred the used bookstore. One respondent purchased crafts magazines at garage sales.

One respondent purchased Harlequin and Silhouette romances at a discount store. Seven respondents indicated

that they purchased specific magazines at the grocery store. Three purchased Family Circle and Woman's Day. One purchased only Woman's Day. One purchased the National Enquirer, Star, and Globe. One purchased only the National Enquirer and one purchased only the Star.

Four respondents indicated that they read the magazines in their residential collections. Two said they were aware of the resources in the residential collection, but did not use them. One indicated that the materials were dated, and more current materials were needed.

Eight respondents used other external channels of distribution, not included in the interview schedule. One drove to the post office to pick up mail. One used a hospital library as a volunteer. One read magazines where she babysat children. One reads the newspaper at the senior center. Four read newspapers and magazines at the hairdresser's.

Proximate Channels of Distribution

Respondents often commented on the use of proximate channels of distribution for ages 65 and over. Only a few respondents (N=6) still used a mail order source or book club (see table 111). Only one respondent used more than one. Comments on television are in Appendix E, and comments on the radio and Radio Reading Service in Appendix F.

Table 111.--Reported use of mail order sources or book clubs, ages 65+

Better Homes and Gardens	Prevention (1)!
Book Club (1)	Reader's Digest (1)**
Book-of-the-Month-Club (2)	The Vision (1)!

! magazines which advertise books for mail order

**ordered books, but not Reader's Digest Condensed Books

Age Range 65+

Fiction and Nonfiction

Fiction

For the present period (ages 65 and over), one respondent indicated that fiction was much preferred over non-fiction. Only a few respondents (N=5) continued to subscribe for materials in the Reader's Digest Condensed Books format. Respondents indicated that they read fiction in specific categories (see table 112). Although some categories may overlap in terms of content, they are related as respondents dictated them. The numbers in parentheses are the number of respondents mentioning a category. Respondents often mentioned more than one subject category.

Table 112.--Reported categories of fiction, ages 65+

Adventure (5)	Medical settings (1)
Best-Sellers (6)	Mystery (5)
"Classics" (3)	Poetry (1)
Espionage (1)	Romances (9)
Fables (1)	Sea stories (1)
Historical fiction (16)	Westerns (6)

In some cases, they mentioned specific authors and titles

Table 113.--Reported fiction authors and titles, ages 65+

Jeffrey Archer	<u>Not a Penny More, Not a Penny Less</u>
Jean Auel	<u>Clan of the Cave Bear</u>
Jane Austen	.....
Charlotte Bronte	<u>Jane Eyre</u>
Pearl Buck	.....
Taylor Caldwell	.....
Barbara Cartland	.....
Clive Cussler	.....
R.F. Delderfield	.....
Dowling Eden	<u>The Storington Papers</u>
Edna Ferber	.....
Dick Francis	.....
Dorothy Gilman	.....
Andrew Greeley	<u>Angels of September</u>
Zane Grey	.....
Arthur Hailey	.....
Thomas Hardy	.....
James Herriot	<u>The Cat Who Came for Christmas</u>
Victoria Holt	.....
Garrison Keillor	<u>Lake Wobegon Days</u>
Elithe Hamilton Kirkland	<u>Love is a Wild Assault</u>
Judith Krantz	.....
Louis L'Amour	.....
Robert Ludlum	<u>Bourne Identity</u>
Colleen McCullough	<u>The Thorn Birds</u>
Alistair McLean	.....
Larry McMurtry	<u>Lonesome Dove</u>
Catherine Marshall	.....
Edison Marshall	.....
James Michener	<u>Texas</u>
Lucy Maud Montgomery	<u>Anne of Green Gables</u>
Belva Plain	.....
Helen Hooven Santmeyer	<u>"...And the Ladies of the Club"</u>
William Shakespeare	<u>As You Like It</u>
Sidney Sheldon	.....
Danielle Steele	<u>Wanderlust</u>
Mary Stewart	.....
William Makepeace Thackeray	<u>Vanity Fair</u>
James Thurber	.....

that are particular favorites in this period (see table 113). Respondents often mentioned more than one specific author and/or title.

Non-Fiction

Respondents also indicated interest in a variety of non-fiction categories (see table 114). Others mentioned particular, specific subjects of interest to them (see table 115). In some cases, they indicated specific authors and titles that had been of particular interest (see table 116). Two respondents made comments that their preference was for non-fiction. Although some categories may overlap in terms of content, they are related as respondents dictated them. The numbers in parentheses are the number of respondents mentioning a category. Respondents often mentioned more than one subject category, or specific authors and titles.

Table 114.--Reported categories of non-fiction, ages 65+

Anthropology (3)	Health (5)
Art (3)	History (9)
Autobiography (3)	How-to (1)
Biography (7)	Philosophy (1)
Business (2)	Photography (2)
Cookbooks (1)	Political Science (2)
Crafts (2)	Psychology (1)
Food (1)	Religion (9)
Genealogy (1)	Science (2)
Geography (3)	Travel (3)

Table 115.--Reported specific non-fiction subjects, ages 65+

Abraham Lincoln	Louisiana history
American West	Henry Luce
Australia	Marco Polo
Civil War	Radio
Deep South	Texas history
English history	Bess Truman
Ima Hogg	Tung Dynasty (China)
Enid Justin	

Table 116.--Reported non-fiction authors and titles, ages 65+

J. Frank Dobie	.....
Alex Haley	<u>Roots</u>
James Herriot	<u>All Creatures Great and Small</u>
William J. Leckie	<u>Buffalo Soldiers</u>
Lawrence J. Peter	<u>Peter Principle</u>
.....	<u>Cultural Literacy</u>
.....	<u>The Rothschilds</u>
Elton Trueblood	<u>Abraham Lincoln: A Spiritual Biography</u>

APPENDIX D

MAGAZINES AND NEWSPAPERS

MAGAZINES AND NEWSPAPERS

In the course of an interview, respondents often made comments about their reading of magazines and newspapers which added explanatory value to their answers. Since the interview schedule was not structured to allow for statistical analysis of such comments, they were recorded by the interviewer, in space on the form, and appropriate notation was made to the proper time period: past, (ages 40-55) or present (ages 65 and over). These comments may offer additional insights to the sample data, and provide information of use in other studies. All titles are recorded as respondents reported them.

Age Range 40-55

Magazines

General Comments

Many respondents indicated that they subscribed to one of the popular general interest magazines during the past period (ages 40-55). Since so few males are represented in the study, their preferences are noted by an asterisk (*), if at least one male mentioned a title.

Table 117.--Reported reading of general interest magazines, ages 40-55.

<u>Life</u> (11)*	<u>Saturday Evening Post</u> (7)
<u>Look</u> (2)	<u>Time</u> (18)*
<u>Newsweek</u> (7)*	<u>U.S News & World Report</u> (14)*
<u>Reader's Digest</u> (66)*	

Many respondents also subscribed to more specialized magazines during this period. Since so few males are represented in the study, their preferences are noted by an asterisk (*), if at least one male mentioned a title.

Table 118.--Reported reading of special interest magazines, ages 40-55.

<u>Antiques</u> (1)	<u>Literary Digest</u> (1)
<u>American Heritage</u> (2)*	<u>Nation</u>
<u>Arizona Highways</u> (2)*	<u>National Geographic</u> (27)*
<u>Atlantic</u> (1)	<u>Natural History</u> (1)
<u>Book World</u> (1)	<u>New Republic</u> (1)
<u>Business Week</u> (1)	<u>Popular Science</u> (1)*
<u>Changing Times</u> (1)	<u>Prevention</u> (1)
<u>Consumer Reports</u> (1)	<u>Progressive Farmer</u> (2)*
<u>Ellery Queen's Mystery Magazine</u> (1)	<u>Smithsonian</u> (2)*
<u>Encore</u> (1)	<u>Southern Living</u> (6)*
<u>Farm Journal</u> (1)*	<u>Sunset</u> (2)
<u>Forbes</u> (2)*	<u>Texas Highways</u> (1)
<u>Foreign Affairs</u> (1)	<u>Texas Observer</u> (1)
<u>Fortune</u> (2)	<u>Texas Outlook</u> (1)*
<u>Golf Digest</u> (1)*	<u>Travel-Holiday</u> (2)
<u>Guideposts</u> (1)	<u>Washington Post Weekly</u> (1)
	<u>Yankee</u> (1)*

Two female respondents read at least one magazine regularly because someone else subscribed to them. The titles mentioned were Boy's Life and Chemical News. In addition, some respondents only mentioned reading certain

categories of magazines (see table 119). Specific titles in the category "women's magazines" were mentioned by a large number of respondents. (See table 120)

Table 119.--Reported categories of magazines, ages 40-55.

Crafts (4)	Hunting and fishing (1)*
Gun (1)*	Women's magazines (1)

Table 120.--Reported reading of women's magazines, ages 40-55

<u>Better Homes and Gardens</u> (7)	<u>Mademoiselle</u> (1)
<u>Comfort</u> (1)	<u>Parents</u> (2)
<u>Cosmopolitan</u> (4)	<u>Redbook</u> (1)
<u>Good Housekeeping</u> (17)	<u>True Story</u> (2)
<u>Harper's Bazaar</u> (2)	<u>Vogue</u> (3)
<u>House Beautiful</u> (2)	<u>Woman's Crochet Omnibus</u> (1)
<u>Ladies' Home Journal</u> (26)	<u>Workbasket</u> (1)
<u>McCall's</u> (22)	

Several respondents indicated that they obtained the following magazines regularly at the grocery store: two obtained Family Circle; three obtained Woman's Day.

Respondents sometimes indicated that they regularly received publications from their church or denomination (see table 121). Five reported reading only "church and Sunday School magazines."

Table 121.--Reported reading of denominational religious periodicals, ages 40-55.

Church of the Nazarene	Methodist cont.
<u>Herald of Holiness</u> (1)	<u>Methodist Reporter</u> (1)
<u>The Other Sheep</u> (1)	<u>Christianity Today</u> (1)
Methodist	Southern Baptist
<u>World Outlook</u> (1)	<u>Baptist Standard</u> (1)
<u>Methodist Record</u> (1)	

Professional or Occupational Literature

For the previous period (ages 40-55), respondents (N=25) sometimes indicated that they read periodicals related to their profession or occupation (see table 122). In some cases, they mentioned only the occupation, agency, or professional association name (see table 123), with no specific names of periodicals. In still other cases, respondents mentioned specific titles of periodicals (see table 124). Names of associations and titles of periodicals are recorded as respondents reported them. Categories, associations, and specific titles mentioned by at least one male are noted with an asterisk (*).

Table 122.--Reported reading of periodicals in areas of occupational interest, ages 40-55.

Bookkeeping (1)*	Nursing (2)
Dairy farming (1)	Safety engineering (1)*
Electrical	Sewing (1)
engineering (2)*	Theology (2)*
Education (2)	

Table 123.--Reported reading of publications of professional associations, ages 40-55.

American Association of Petroleum Geologists*	Society of Exploration Geophysicists*
American Dietetic Association	Texas Dietetic Association
American Council on Family Relations	Texas Council on Family Relations
American Hereford Association	Texas Employment Commission
American Home Economics Association	Texas Hereford Association
American Oil Chemical Society*	Texas Home Economics Association
Fort Worth Geophysical Society*	U.S. Customs Service*

Table 124.--Reported reading of specific titles in areas of occupational interest, ages 40-55.

<u>American Home Economics Association Journal</u>	<u>Instrumentalist (1)*</u>
<u>American Quarterhorse (1)*</u>	<u>Modern Beauty Shop</u>
<u>Chemical Abstracts (1)*</u>	<u>NEA Journal (3)</u>
<u>Dairyman's Digest (1)*</u>	<u>New York Times</u>
<u>English Journal (1)</u>	<u>Nutrition Journal</u>
<u>Farm and Ranch (2)*</u>	<u>Progressive Farmer (1)*</u>
<u>Harper's Bazaar</u>	<u>School Musician (1)*</u>
<u>Hoard's Dairyman (1)*</u>	<u>Seventeen</u>
<u>Jersey Journal (1)*</u>	<u>Texas Outlook (TSTA) (2)</u>
<u>Industrial Engineering Chemistry (1)*</u>	<u>Womens' Wear Daily (2)</u>

Age Range 65+

General Comments

Two respondents commented positively that they read magazines in the past and still read a lot of magazines; one of these receives a number of magazines in the formats provided from the National Library Service for the Blind and

Physically Handicapped.

Many respondents made negative comments about magazine subscriptions. Twenty respondents commented that they read fewer magazines than in the past. Five of these reported that visual problems were responsible for the decline in interest. Eight respondents traded magazines with friends or relied on family members to supply subscriptions. One of the eight also used magazines in the residential collection, as did one other respondent. Three respondents gave other reasons: one traveled a lot, one had always been conservative about spending money on magazines, and one had subscribed to magazines for his wife, now deceased, and did not care for them himself.

As in the previous period, respondents in the present (ages 65 and over), also subscribed to the popular general interest magazines (see table 125). Some changes can be noted; overall, the number subscribing has declined. Large print has increased in popularity, and some respondents now receive their titles in the format provided by the National Library Service for the Blind and Physically Handicapped (NLSBPH). Modern Maturity, a general interest publication aimed at those over fifty, is popular with a considerable number. Special interest magazines are still popular (see table 126). Since so few males are represented in the studies, categories, or specific titles mentioned by at least one male are indicated by an asterisk (*).

Table 125.--Reported reading of general interest magazines, ages 65+.

<u>Modern Maturity</u> (20)	<u>Saturday Evening Post</u> (1)
<u>Newsweek</u> (1)+	<u>Time</u> (4)+
<u>Reader's Digest</u> (49)*+!	<u>U.S News & World Report</u> (11)*++

+ One person takes through NLSBPH

++ Two take through NLSBPH

! 15 take the large type edition

Table 126.--Reported reading of special interest magazines, ages 65+.

<u>American Artist</u> (1)	<u>National Wildlife</u> (1)
<u>Arms and Ammunition</u> (1)*	<u>Natural History</u> (1)+
<u>American Heritage</u> (1)+	<u>New Republic</u> (1)
<u>Arizona Highways</u> (3)*	<u>Prevention</u> (5)
<u>Atlantic</u> (1)+	<u>Progressive Farmer</u> (1)*
<u>Book World</u> (1)+	<u>Cat Fancy</u> (1)+
<u>Changing Times</u> (1)+	<u>The Sciences</u> (1)*
<u>Consumer Reports</u> (1)+	<u>Shooting Times</u> (1)*
<u>Connoisseur</u> (1)	<u>Smithsonian</u> (3)+
<u>Country Living</u> (1)	<u>Southern Living</u> (4)
<u>D Magazine & Dial</u> (7)*	<u>Texas Highways</u> (11)*
<u>Ellery Queen's Mystery</u>	<u>TV Guide</u> (5)
<u>Encore</u> (1)+	<u>Texas Monthly</u> (3)*
<u>Flower and Garden</u> (1)	<u>Texas Parks & Wildlife</u> (3)*
<u>Foreign Affairs</u> (1)+	<u>Travel</u> (1)
<u>Golf</u> (1)	<u>Travel-Holiday</u> (2)+
<u>Golf Digest</u> (1)*	<u>Travel and Leisure</u> (1)
<u>Gourmet</u> (1)	<u>Traveler</u> (2)
<u>Gun</u> (1)*	<u>Yankee</u> (1)
<u>National Geographic</u> (14)*+	

+NLSBPH

In addition, some respondents only mentioned reading certain categories of magazines (see table 127). Specific titles in the category "women's magazines" were mentioned by a large number of respondents. (See table 128)

Table 127.--Reported categories of magazines, ages 65+.

Crafts (4)	Health (1)
Fishing and hunting (1)*	Women's magazines (1)
Gun (1)	

Table 128.--Reported reading of women's magazines, ages 65+.

<u>Annie's Attic</u> (1)	<u>McCall's</u> (5)
<u>Better Homes and Gardens</u> (4)	<u>Needlecraft</u> (1)
<u>Crochet</u> (1)	<u>Redbook</u> (3)
<u>Crochet World</u> (2)	<u>"W"</u> (1)
<u>Good Housekeeping</u> (7)	<u>Woman's Crochet Omnibus</u> (1)
<u>Harper's Bazaar</u> (1)+	<u>Woman's Household</u> (1)
<u>Hooked on Crochet</u> (1)	<u>Workbasket</u> (3)
<u>Ladies' Home Journal</u> (8)	

Several respondents indicated that they obtained the following magazines or tabloids regularly at the grocery store (Table 129).

Table 129.--Reported purchasing of magazines and tabloids at the grocery store, ages 65+.

Family Circle (3)	Star (2)
Globe (1)	Woman's Day (4)
National Enquirer (2)	

Respondents sometimes indicated that they regularly received publications from their church or denomination during the present period (see table 130). Five read "church and Sunday School magazines." Several other inspirational magazines were also popular (see table 131).

One, Guideposts, was particularly popular in large print.

Table 130.--Reported reading of denominational religious periodicals, ages 65+.

Catholic	Southern Baptist
<u>Texas Catholic</u>	<u>Baptist Standard</u> (4)*
<u>U.S. Catholic</u>	<u>Commission</u> (1)
	<u>Home Life</u> (1)
Methodist	<u>Mature Living</u> (2)
<u>Methodist Record</u> (1)	<u>Open Windows</u> (2)
<u>Methodist Reporter</u> (1)*	<u>Royal Service</u> (1)
<u>Response</u> (1)	
<u>U.S. Today</u> (1)	<u>Unity</u> (1)
<u>World Outlook</u> (1)	
Nazarene	
<u>Herald of Holiness</u> (1)	
<u>World Missions</u> (1)	

Table 131.--Reported reading of inspirational periodicals, ages 65+.

<u>Decision</u> (Billy Graham) (2)*	<u>Weavings</u> (1)*
<u>Guideposts</u> (15)!	

! 7 in large print

Professional or Occupational Literature

A few respondents (N=4) sometimes indicated that they still read periodicals related to their profession or occupation. In one case, the respondent mentioned only the occupation (nursing). Others mentioned specific publications.

Table 132.--Reported reading of periodicals of occupational interest, ages 65+.

<u>Modern Communications</u> (1)*	<u>TSTA Journal</u> (1)
<u>QST</u> (1)*	<u>Threads</u> (1)

Age Range 40-55

Newspapers

Locations

The majority of respondents (N=95) indicated that they took at least one daily newspaper during the earlier period (ages 40-55). Often, however, they could not recall the name of the paper, only the location where they were living. Many respondents lived in a location other than Denton during this period, and some (N=28) lived in several locations during this span of years. A minority (N=12) lived on farms or in rural areas.

The North Texas area was reported often as a residence location for this period. Respondents named Denton (N=26), Fort Worth (N=8), Dallas (N=9), and Denton County (N=6) as their home in the past. However, the remainder of the respondents lived in variety of geographic areas during the period when they were ages 40-55.

The following states were mentioned by respondents as residence locations for the past period. The number in parentheses following each state is the number of different towns mentioned for the state: California (6), Colorado

(3), Illinois (3), Louisiana (2), Massachusetts (2), Mississippi (1), New Jersey (1), New York (5), North Carolina (1), Ohio (5), Oklahoma (5), Pennsylvania (2), Rhode Island (1), Texas (42), Virginia (1), Wisconsin (1), and Wyoming (1). One respondent indicated only that she had lived in California, and another that she had lived in several locations in New Mexico, Oklahoma, and Texas. Neither mentioned specific towns.

Specific Newspapers

Often, respondents could recall specific newspapers they received during ages 40-55 (see table 133). Some subscribed to more than one, and this was often the case if respondents lived in a rural area, small town, or city close to a much larger metropolitan area. In addition, respondents who had lived in more than one location sometimes subscribed to papers from previous residence locations. Numbers in parentheses indicate the number of respondents who said they subscribed to a particular paper. Titles are recorded as respondents reported them.

Age Range 65+

For the present period (ages 65 and over), all respondents live in Denton. Many respondents still have at least one daily newspaper delivered (N=78), but several report that they no longer subscribe regularly to any newspaper (N=13), and a few provided no information (N=9).

Friends or relatives who loan newspapers are a favorite substitute for personal newspaper subscriptions, and several (N=18) use this method for at least one paper. Others (N=6) indicated that they buy papers occasionally.

Visual problems caused difficulty in reading newspapers for a few (N=3) individuals, and a few (N=3) indicated that such problems were the reason they had dropped subscriptions. Yet one respondent with severe visual problems took the Denton Record Chronicle in print and "read" two papers (the New York Times and the Washington Post) on tape from the National Library Service for the Blind and Physically Handicapped (NLSBPH). Another respondent indicated that subscriptions were dropped because of extensive travel.

Specific Newspapers

Often, respondents could recall specific newspapers they received (see table 134). Some subscribed to more than one newspaper (N=17); in several cases, respondents continued to take their hometown paper if they were not lifelong Denton residents. Titles were recorded as respondents reported them.

Table 133.--Reported subscriptions to specific newspapers, ages 40-55.

<u>Amarillo News</u> (1)~=	<u>Illinois State Journal</u> (1)
<u>Boston Traveler</u> (1)	<u>Jacksboro Gazette</u> (1)~
<u>Capper's Weekly</u> (1)=	<u>Kansas City Star</u> (1)
<u>Chicago Daily News</u> (1)	<u>Ladonia News</u> (1)~
<u>Chicago Daily Tribune</u> (1)	<u>Littleneck News</u> (1)
<u>Chico Review</u> (1)~	<u>Los Angeles Times</u> (1)=
<u>Christian Science Monitor</u> (1)	<u>Memphis Democrat</u> (1)~
<u>Cleveland Plain Dealer</u> (1)=	<u>Mundy Times Weekly</u> (1)~
<u>Clifton Herald News</u> (2)	<u>New York Times</u> (5)=
<u>Dallas Morning News</u> (21)~=	<u>Newsday</u> (1)=
<u>Dallas Times Herald</u> (5)~	<u>Rocky Mountain News</u> (2)
<u>Dayton Daily News</u> (2)	<u>San Angelo Times</u> (1)~
<u>Dayton Journal Herald</u> (2)	<u>San Antonio Express</u> (1)~=
<u>Denton Record Chronicle</u> (31)~	<u>Sherman Democrat</u> (2)~
<u>Denver Post</u> (2)	<u>Shreveport News</u> (1)
<u>Fort Worth Star Telegram</u> (11)~=	<u>Shreveport Journal</u> (1)
<u>Gainesville Daily Register</u> (1)~	<u>Wall Street Journal</u> (2)
<u>Honey Grove Sentinel</u> (1)~	<u>Washington Post</u> (1)
<u>Houston Chronicle</u> (3)~=	<u>Wichita Falls Times</u> (1)

~Texas newspaper

=at least one respondent lived in a smaller town and took as supplement

Table 134.--Reported subscriptions to specific daily newspapers, ages 65+.

<u>Capper's Weekly</u> (1)	<u>Honey Grove Sentinel</u> (1)~
<u>Christian Science Monitor</u> (1)	<u>Ladonia News</u> (1)~
<u>Dallas Morning News</u> (21)~	<u>Memphis Democrat</u> (1)~
<u>Dallas Times Herald</u> (6)~	<u>New York Times</u> (1)+
<u>Denton Record Chronicle</u> (64)~	<u>Wall Street Journal</u> (1)
<u>Eastland Telegram</u> (1)~	<u>Washington Post</u> (1)+
<u>Fort Worth Star Telegram</u> (2)~	<u>Washington Post Weekly</u> (1)
<u>Grit</u> (2)	<u>Wise County Messenger</u> (1)~

~Texas newspaper

+NLBPH

APPENDIX E

TELEVISION VIEWING

TELEVISION VIEWING

In the course of an interview, respondents often made comments about their television viewing habits which added explanatory value to their answers. Since the material was not included in the interview schedule in a structured manner, such as prompting recall with a list of all television shows that were broadcast for various time periods, and having respondents note those that were consistently viewed, the material was not considered valid to subject to statistical analysis.

The comments were recorded by the interviewer, in space on the form, and appropriate notation was made to the proper time period: past (ages 40-55) or present (ages 65 and over). These comments may offer additional insights to the sample data, and provide information of use in other studies. The number of respondents will be indicated in parentheses.

Age Range 40-55

Television Ownership

For the earlier period (ages 40-55), a larger number of respondents (N=14) reported that they did not own a television, as reported in table 40. One reason given by respondents (N=2) was that they lived in rural areas with poor reception, although a small minority (N=12) lived in rural areas. Another reason given by one respondent was

that he simply had not acquired a television. Historically, this would have been the period when television might still have been a "new" technology. Two other men, both with very active professional careers, indicated that television was simply not a recreational activity.

Respondents generally provided less detailed responses in terms of particular shows or personalities that were favorites for this time period. In some instances, a type of show or genre was simply referred to without further elaboration, and will be so noted. Respondents often mention the name of more than one show, and names of shows are recorded as respondents reported them.

Categories of Television Shows

Daytime and Early Evening Programming

For the past period (ages 40-55), three respondents indicated that they watched daytime soap operas, "As the World Turns" (N=2), and "The Guiding Light" (N=1). Game shows were also popular in the past (N=5). One respondent simply mentioned "game shows."

Table 135.--Reported viewing of game shows, ages 40-55.

Concentration (1)	Queen for a Day (1)
I've Got a Secret (1)	\$64,000 Question (2)
Jeopardy! (1)	Truth or Consequences (1)
Price is Right (1)	What's My Line (1)

Some respondents (N=3) mentioned shows that they enjoyed watching with their children.

Table 136.--Reported viewing of "family" shows on television, ages 40-55.

Black Beauty (1)	Walt Disney (1)
Dick Clark's American Bandstand	Lassie (1)
	Whirlybird (1)

News and information programming were also popular for the past period (ages 40-55). In particular, the "Today" show was often mentioned in connection with particular personalities (N=7), but other news personalities were also specifically mentioned (see table 137). One respondent mentioned only "news."

Table 137.--Reported viewing of news and information shows or personalities, ages 40-55.

Army/McCarthy Hearings (2)	Today (5)
Walter Cronkite (1)	Betty Furness (1)
Earlybirds from Dallas (1)	Dave Garroway (2)
Eric Sevareid (1)	Barbara Walters (1)

Evening Programming

For this time period (ages 40-55), respondents watched several different types of evening programming. Several are still popular in television programming in the present, but others have fallen from favor.

Westerns, a genre that has fallen out of favor in terms of modern programming, but which is a staple of syndication, was a favorite form of television prime-time programming in the 1950s through the 1970s. Five respondents mentioned this as a favorite category (see table 138). Not surprisingly, this was a favorite category for males. One simply mentioned "westerns on TV."

Table 138.--Reported viewing of Westerns on television, ages 40-55.

Big Valley (2)	Wagon Train (1)
Gunsmoke (3)	Wyatt Earp (1)
Maverick (1)	

Mystery and detective shows, still popular in contemporary programming, were also a staple of television from the 1950s to the present, and were mentioned by several (N=4) respondents (see table 139). One simply mentioned "mystery shows."

Table 139.--Reported viewing of mystery shows on television, ages 40-55.

The Fugitive (1)	The Thin Man (1)
Perry Mason (1)	

Situation comedies, common on television in the past and the present, were often mentioned (N=9), as noted in table 140. Two only mentioned "comedies."

Table 140.--Reported viewing of situation comedies, ages 40-55.

Amos and Andy (4)	I Love Lucy (1)
Father Knows Best (2)	Ozzie and Harriet (2)
Honeymooners (1)	Dick Van Dyke Show (2)

Variety and anthology shows were another popular staple of programming from the 1950s through the 1970s, with variety shows, in particular, now largely vanished from contemporary programming. The majority were associated with a particular star or sponsor. Respondents (N=19) often simply mentioned the star's name in identifying the show (see table 141). One simply mentioned "variety shows." One respondent enjoyed watching movies on TV--"Rebecca" and "Gone With the Wind."

Table 141.--Reported viewing of variety and anthology shows, ages 40-55.

Jack Benny (3)	Ed Sullivan (4)
Milton Berle (1)	Kate Smith (2)
Carol Burnett (1)	Texaco Theatre (2)
Sid Caesar (2)	Fred Waring (1)
Bob Hope (3)	Lawrence Welk (2)
Garry Moore (1)	Ed Wynn (1)
Red Skelton (3)	

Documentaries, anthologies, and travelogues were also a popular form of programming, and still are. One respondent mentioned "adventure shows," while another mentioned "history." One respondent each mentioned Lowell Thomas and

"This is Your Life."

Sports have been a perennial favorite with a significant minority (N=10), as noted in table 142. Six out of 10 indicated that they followed more than one sport. Only 4 out of 10 were males. The two respondents who watched professional wrestling were females.

Table 142.--Reported viewing of sports programming, ages 40-55.

Baseball (4)	Golf (1)
Basketball (2)	Skiing (1)
Football (4)	Wrestling--professional (2)

Summary

Respondents watched a variety of types of programming in the past period (ages 40-55). Two popular genres, Westerns and variety shows, are noticeably absent from contemporary programming, except as reruns for syndication.

Age Range 65+

Television Ownership

Respondents could generally provide more detailed information about their current viewing habits. Only a few (N=3) indicated that they did not own a television, as reported in table 40. The most noticeable difference was the increase in the number of respondents who currently watched daytime television. Another noticeable difference was the increase reported in the viewing of news and

information programming.

Daytime and Early Evening Programming

Daytime soap operas were popular with over one-quarter of the respondents (N=26). Seventeen out of 26 watched more than one. One respondent mentioned only "soap operas."

Table 143.--Reported viewing of daytime soap operas, ages 65+.

ABC (Channel 8)	CBS (Channel 4)
All My Children (1)	The Young and the Restless (1)
Ryan's Hope (1)	The Bold and the Beautiful (2)
One Life to Live (4)	As the World Turns (12)
General Hospital (6)	The Guiding Light (5))
NBC (Channel 5)	
Another World (6)	
Days of Our Lives (9)	
Santa Barbara (1)	

For the present period (ages 65 and over), game shows were popular with a third of the respondents (N=32). One respondent mentioned only "game shows." One interesting comment about a game show was made by one respondent with serious hearing difficulties: she noted that she could watch "Wheel of Fortune" and enjoy it without being able to hear it. Many respondents watched more than one game show.

Table 144.--Reported viewing of game shows, ages 65 and over.

Card Sharks (7)	Newlywed Game (1)
Dating Game (1)	Password (2)
Highrollers (1)	Price is Right (9)
Hollywood Squares (4)	Scrabble (4)
Jeopardy!(15)	Super Password (1)
Joker's Wild (1)	\$20,000 Pyramid (7)
Lingo (1)	Wheel of Fortune (17)

One-hour daytime talk shows, a recent programming trend, were popular with a significant minority of respondents (N=12). Nine of the 12 watched more than one.

Table 145.--Reported viewing of daytime talk shows, ages 65+.

Donahue (8)	Hour Magazine (9)
Geraldo (1)	Oprah Winfrey (7)

Another recent programming trend has been shows with courtroom settings, which are advertised as dealing with cases drawn from real life. These were also popular, with a significant minority (N=9) watching them. Three of the 9 watched more than one. All are syndicated and run on NBC (KXAS Channel 5) in the Denton area.

Table 146.--Reported viewing of daytime courtroom dramas, ages 65+.

Divorce Court (2)	People's Court (9)
The Judge (3)	Superior Court (2)

Sports were popular with one-fifth (N=20) of the respondents. Fifteen followed more than one. Eight of the respondents were males. Denton receives broadcasts of the Dallas Cowboys, the Texas Rangers, and the Dallas Mavericks, and also receives broadcasts of the local high school team, the Broncos, and the University of North Texas Eagles. Three respondents indicated only that they watched "sports."

Table 147.--Reported viewing of sports programming, ages 65+.

Baseball (9)	Horse racing (1)
Basketball (3)	Olympics(1)
Football (15)	Skiing (1)
Golf (6)	Tennis (1)

The network morning news shows were mentioned by significant minority of respondents (N=16). Two indicated only "morning news shows."

Table 148.--Reported viewing of network morning news programming, ages 65+.

CBS Morning News (2)	Good Morning America (4)
CBS Sunday Morning with Charles Kuralt (2)	Today Show (6)

Several respondents mentioned watching specific network early evening network news broadcasts: ABC (N=2), CBS (N=1), NBC (N=1).

Evening Programming

Mystery and detective shows were popular with respondents (N=16), nearly all females; one male watched "Matlock."

Table 149.--Reported viewing of network evening mystery and detective shows, ages 65+.

Adderley (1)	Matlock (9)
Cagney and Lacey (2)	Murder, She Wrote (6)
Hill Street Blues (1)	New Mike Hammer,
L.A. Law (1)	Private Eye (2)
Magnum, P.I. (2)	Simon and Simon (1)

Network one-hour dramas were popular with a significant minority of respondents (N=15), all females. Eight mentioned more than one.

Table 150.--Reported viewing of network evening one-hour dramas, ages 65+.

Highway to Heaven (3)	Our House (3)
Hotel (1)	St. Elsewhere (1)

The network evening soap operas, a recent programming trend, were popular with a significant minority of respondents (N=7), all females. Four watched more than one.

Table 151.--Reported viewing of network evening soap operas,
ages 65+.

Colbys (1)	Falcon Crest (3)
Dallas (7)	Knots Landing (3)
Dynasty (2)	

Network situation comedies were mentioned by a significant minority of respondents (N=16). Five watched more than one. "The Cosby Show" was mentioned by nearly half of those who mentioned watching this type of programming (N=7); for 5 of the respondents. this was the only situation comedy watched.

Table 152.--Reported viewing of network situation comedies,
ages 65+

Amen (2)	Kate and Allie (1)
Cosby Show (7)	Newhart (1)
A Different World (1)	Valerie (1)
Facts of Life (3)	227 (1)
Family Ties (2)	Webster (1)
Golden Girls (6)	

Evening news programs or specials were mentioned by almost one-fifth of the respondents (N=18). Four mentioned more than one type of show. All but one were females. One mentioned only "news specials."

Table 153.--Reported viewing of news programs and specials, ages 65+.

Crossfire (CNN) (1)	Parades for Bi-Centennial of the Constitution (1)
Election coverage (1)	60 Minutes (2)
Iran/Contra hearings (5)	20/20 (3)
International Business News (CNN) (1)	West 57th (1)
Nightline (2)	

Late evening programming was mentioned by several respondents. Two respondents mentioned watching the local 10:00 p.m. news. Late night programming (after 10:30 p.m.) was mentioned by a few respondents (N=5). Two mentioned more than one program. One male mentioned Johnny Carson. Programs with asterisks (*) have already been mentioned in other categories.

Table 154.--Reported viewing of late night programming, ages 65+.

Adderley (1)*	Love Connection (syndicated) (1)
Johnny Carson (4)	Nightline (2)*
David Letterman (1)	

Specials and mini-series were mentioned by a few respondents (N=5). One mentioned more than one. All were females except one male who mentioned the "Hallmark Hall of Fame."

Table 155.--Reported viewing of specials and mini-series, ages 65+

Hallmark Hall of Fame (Foxfire) (1)	Perry Mason (special) (1)
Miss America Pageant (1)	Roots (1)
North & South (1)	Shogun (1)

Thirteen respondents mentioned syndicated programs, many reruns of former network prime-time hits. Only two mentioned more than one. All but one were females; one male mentioned "All in the Family." Two respondents watched old movies on television. The program with an asterisk (*) was also mentioned in another category.

Table 156.--Reported viewing of syndicated programs, ages 65+.

All in the Family (2)	Lifestyles of the Rich and Famous (1)
Barnaby Jones (1)	Love Connection (1)*
Bonanza (1)	Lucille Ball (1)
Eight is Enough (1)	Matt Houston (1)
The Andy Griffith Show (2)	My Favorite Martian (1)
Hart to Hart (1)	My Three Sons (1)
Hee-Haw (2)	
Jeffersons (1)	

One-tenth of the respondents (N=10) mentioned some form of religious programming, a distinct difference from the past. One mentioned only "religious programming." All were females, with the exception of one male. Four respondents, including one male, watched Channel 58, a 24 hour religious station. One mentioned only a "Sunday church service."

Only one respondent mentioned more than one program.

Table 157.--Reported viewing of religious programming, ages 65+.

Barry Bailey (Methodist) (1)
Religious Town Hall of the Air--Channel 6 (1)
700 Club (3)

Programming on the local public television station was very popular, mentioned by over one-quarter of the respondents for the present period (N=28). Three simply indicated that they watched PBS. Several indicated watching specific categories of programming (see table 158). Others mentioned specific programs (see table 159). Fifteen indicated that they watched more than one program. All were females, except for 4 males.

Table 158.--Reported viewing of categories of public television programming, ages 65+

"classics" (1)	plays (3)
health (1)	science (2)
music (3)	travelogues (1)

Table 159.--Reported viewing of public television programs, ages 65+.

Explorer (1)	Nature (3)
Great Performances (2)	Nova (2)
Great Railway Journeys (1)	3-2-1 Contact (1)
Great Steam Trains (1)	Upstairs, Downstairs (1)
Mark Russell Comedy	Wall Street Week (3)
Specials (1)	Washington Week in Review (4)
Mystery! (2)	World at War (1)
National Geographic (3)	

Two individuals indicated that they had a videocassette recorder and used it for personal taping: one to tape religious programming, and one to tape PBS programming. Neither indicated that they rented movies for their personal use.

Two of the residential locations, Heritage Oaks and Denton Good Samaritan Village, have videocassette recorders in community rooms, where video tapes can be played for groups. Both regularly schedule movies, once a week. Conversation indicated that these were usually current, first-run movies available in video stores. This activity was popular with one-fifth of the respondents (N=20), five at Heritage Oaks, and fifteen at Denton Good Samaritan Village.

Summary

Many of the same types of programming popular in the past were also popular in the present. Viewing of daytime programming increased with "new" formats (daytime one-hour talk shows and courtroom dramas) available for viewing. Similarly, "new" evening formats (network one-hour soap operas and evening news programs; "20/20", for instance, were also available for viewing.

Daily Television Viewing for the Past and Present Crosstabulated by Sex

It can be observed that television viewing increased from the past to the present, with daytime viewing in

particular showing an increase. The variables were computed from the answers given in the "scripts" for questions 5 and 30:

Did/Do you watch a morning news show? = TVHRMNA or TVHRMNB

Did/Do you watch other shows in the morning? = TVHRMA or TVHRMB

Two of the variables were then added:

$$\text{TVHRMNA} + \text{TVHRMA} = \text{TVMA}$$

or

$$\text{TVHRMNB} + \text{TVHRMB} = \text{TVMB}$$

Did/Do you watch a noon news show? = TVHRNNA or TVHRNNB

Did you watch other shows in the afternoon? = TVHRNA or TVHRNB

Two of the variables were then added:

$$\text{TVHRNNA} + \text{TVHRNA} = \text{TVNA}$$

or

$$\text{TVHRNNB} + \text{TVHRNB} = \text{TVNB}$$

Did you watch an evening news show? = TVHRENA or TVHRENB

Did you watch other shows in the evening? = TVHREA or TVHREB

Two of the variables were then added:

$$\text{TVHRENA} + \text{TVHREA} = \text{TVEA}$$

or

$$\text{TVHRENB} + \text{TVHREB} = \text{TVEB}$$

The total number of hours of daily television viewing was taken by adding all the variables for question 5 or question 30: So you watched approximately _____ hours of

television a day from ages 40-55 (ages 65 and over)? =
 TVHRMNA + TVHRMA + TVHRNNA + TVHRNA + TVHRENA + TVHREA =
 TVHRSA

or

TVHRMNB + TVHRMB + TVHRNNB + TVHRNB + TVHRENB + TVHREB =
 TVHRSB

The results are in the following tables. One respondent refused to indicate the number of hours spent viewing television daily for both the past and present.

Ages 40-55

Morning Programming

For the past period, (ages 40-55), 15 out of 16 males, and 68 out of 83 females did not watch morning television, as noted in table 160. A few, (one male and 10 females) watched only 30 minutes of television in the morning. Only six respondents watched more than 30 minutes of morning television.

Table 160.--Crosstabulation: TVMA by SEX

SEX->	Count	MALE 1	FEMALE 2	Row Total
TVMA	.00	15	68	83
	.50	1	10	11
	1.00		2	2

Table 160.--Continued.

SEX->	Count	MALE	FEMALE	Row Total
TVMA		1	2	
	1.50		2	2
	2.00		2	2
	Column Total	16	84	100
		16.0	84.0	100.0

Number of Missing Observations = 1

Afternoon Programming

For the previous period (ages 40-55), few respondents watched any afternoon programming. Fifteen of 16 males, and 70 of 84 females did not watch afternoon programming, as noted in table 161. Only one male and 9 females watched 30 minutes of afternoon programming, while 4 females watched one hour and 1 female watched one-and-one-half hours.

Table 161.--Crosstabulation: TVNA By SEX

SEX->	Count	MALE	FEMALE	Row Total
TVNA		1	2	
	.00	15	70	85
	.50	1	9	10
	1.00		4	4
	1.50		1	1
	Column Total	16	84	100
		16.0	84.0	100.0

Number of Missing Observations = 1

Evening Programming

For the previous period (ages 40-55), most respondents watched some evening programming, although a minority (N=19), noted in table 162, of four males and 15 females did not watch evening programming. However, a majority (N=76) watched from 30 minutes to 3 hours of evening programming. Only five watched more than three hours.

Table 162.--Crosstabulation: TVEA By SEX

SEX->	Count	MALE	FEMALE	Row Total
TVEA		1	2	
	.00	4	15	19
	.50	1	5	6
	1.00	1	5	6
	1.50	3	8	11
	2.00	3	12	15
	2.25	1		1
	2.50	2	17	19
	3.00	1	17	18
	3.50		3	3
	4.00		2	2
Column Total		16	84	100
		16.0	84.0	100.0
Number of Missing Observations =				1

Total Hours of Daily Television Viewing

For the past period (ages 40-55), only 15 did not watch

television daily, as noted in table 163. A majority (N=73) watched 30 minutes to 3 hours daily. Several (N=12) watched from 3 1/2 hours to 6 1/2 hours daily.

Table 163.--Crosstabulation: TVHRSA By SEX

SEX->	Count	MALE 1	FEMALE 2	Row Total
TVHRSA	.00	3	12	15
	.50	2	5	7
	1.00	1	5	6
	1.50	3	8	11
	2.00	2	9	11
	2.50	3	14	17
	2.75	1		1
	3.00	1	19	20
	3.50		6	6
	4.00		2	2
	4.50		2	2
	5.50		1	1
	6.50		1	1
Column Total		16 16.0	84 84.0	100 100.0

Number of Missing Observations = 1

Ages 65 and Over

Morning Programming

For the present period (ages 65 and over), the number

reporting that they did not watch morning television decreased (N=40), as noted in table 164. Eight watched 15 minutes to 30 minutes of morning programming. However, over one-half (N=52) watched from three-fourths of an hour to four-and-one-half hours of morning programming.

Table 164.--Crosstabulation: TVMB By SEX

SEX-> TVMB	Count	MALE	FEMALE	Row Total
		1	2	
.00	10	30	40	
.25		1	1	
.50	1	6	7	
.75		2	2	
1.00	2	16	18	
1.50	1	7	8	
2.00	1	9	10	
2.50		4	4	
3.00		5	5	
4.00	1	3	4	
4.50		1	1	
Column Total	16	84	100	
	16.0	84.0	100.0	

Number of Missing Observations = 1

Afternoon Programming

For the present period (ages 65 and over), viewing of afternoon television programming also increased as observed

in table 165. Almost one-third (N=29) reported that they did not watch afternoon programming. Fourteen (2 males and 12 females) watched only 30 minutes daily of afternoon programming. However, over one-half of the respondents (N=57), now watched from three-fourths of an hour to four-and-one-half hours of daily afternoon programming.

Table 165.--Crosstabulation: TVNB By SEX

SEX->	Count	MALE	FEMALE	Row Total
TVNB		1	2	
.00		9	20	29
.50		2	12	14
.75			1	1
1.00		3	13	16
1.50			7	7
2.00		2	11	13
2.50			10	10
3.00			3	3
3.50			5	5
4.00			1	1
4.50			1	1
Column Total		16	84	100
		16.0	84.0	100.0

Number of Missing Observations = 1

Evening Programming

For the present period (ages 65 and over), only eight

respondents reported that they did not watch evening programming, and only 2 watched only 30 minutes of evening programming (see table 166). Over half (N=56) watched from 1 to 3 hours of evening programming. A considerable number (N=34) watched from three-and-one-half to 7 hours of evening programming.

Table 166.--Crosstabulation: TVEB By SEX

SEX-> TVEB	Count	MALE	FEMALE	Row Total
		1	2	
.00		3	5	8
.50			2	2
1.00		2	4	6
1.50		2	7	9
2.00		2	11	13
2.50			13	13
3.00		2	13	15
3.50		2	12	14
4.00		2	6	8
4.50			3	3
5.00			4	4
5.50		1	3	4
7.00			1	1
Column Total		16 16.0	84 84.0	100 100.0

Total Hours of Daily Television Viewing

Only three respondents reported they did not watch television at all during the present period (ages 65 and over), and only one respondent reported watching only 30 minutes daily (see table 167). Almost one-quarter (N=23) watched from 1 to 3 hours daily. A majority (N=72) watched from three-and-one-half to ten-and-one-half hours daily. The largest number of those (N=41) watched from three-and-one-half to 6 hours daily, while the next largest number (N=31) watched from six-and-one-half to ten-and-one-half hours daily.

Table 167.--Crosstabulation: TVHRSB By SEX

SEX->	Count	MALE	FEMALE	Row Total
TVHRSB		1	2	
	.00	1	3	4
	.50		1	1
	1.00	2	1	3
	1.50	2		2
	1.75		1	1
	2.50	2	6	8
	2.75		1	1
	3.00	3	5	8
	3.50		6	6
	4.00		7	7
	4.25		1	1
	4.50		6	6

Table 167.--Continued.

SEX->	Count	MALE	FEMALE	Row Total
		1	2	
TVHRSB	5.00	1	4	5
	5.50	2	7	9
	6.00	1	6	7
	6.50		6	6
	6.75		1	1
	7.00		5	5
	7.50	1	4	5
	8.00	1	2	3
	8.50		5	5
	9.00		1	1
	9.50		2	2
	10.00		1	1
	10.50		2	2
Column Total		16 16.0	84 84.0	100 100.0

Number of Missing Observations = 1

APPENDIX F

RADIO AND RADIO READING SERVICE USE

RADIO AND RADIO READING SERVICE USE

In the course of an interview, respondents often made comments about their radio listening habits which added explanatory value to their answers. Since the interview schedule was not structured to allow for statistical analysis of such comments, they were recorded by the interviewer, in space on the form, and appropriate notation was made to the proper time period: past (ages 40-55) or present (ages 65 and over). These comments may offer additional insights to the sample data, and provide information of use in other studies. Names of programs and personalities were recorded as respondents reported them.

Ages 40-55

Programs

For the previous period (ages 40-55), most respondents (N=99) owned a radio, as reported in table 36. Respondents often recalled specific programs (see table 168) or personalities (see table 169) that they enjoyed on radio. One recalled "radio dramas."

Table 168.--Reported radio programs, ages 40-55.

Amos and Andy (2)	Ma Perkins (1)
Fibber McGee and Molly (3)	One Man's Family (1)
Firestone Hour (1)	Pepper Martin (1)
Helen's Home (1)	Stella Dallas (1)
Lone Ranger (1)	Young Widow Brown (1)
Lum and Abner (1)	

Table 169.--Reported radio personalities, ages 40-55.

Gracie Allen (1)	Edward R. Murrow (1)
Bing Crosby (1)	Eleanor Roosevelt (1)
Jack Benny (2)	Franklin Roosevelt (1)
Arlene Francis (1)	Walter Winchell (1)
Bob Hope (1)	

Listening to music was a primary purpose for using the radio, reported by almost one-quarter of the respondents (N=24). Two indicated that they listened simply for "music." Two listened to the radio to fall asleep or relax; two listened while getting ready for work, six listened to country music; five to classical, semi-classical or opera, particularly the Texaco broadcasts of the Metropolitan Opera; and seven to easy listening, popular, big band, or show tunes. Some reported listening in particular locations: two at work, and three while driving to and from work.

Over one-tenth of the respondents (N=12) mentioned particular events or personalities associated with radio news broadcasting. Three mentioned simply "news."

Table 170.--Reported radio news personalities, events and programming, ages 40-55.

Bay of Pigs (1)	Farm reports (3)
Breakfast Club (1)	A.B. Jolly (2)
Earlybirds from Dallas (2)*	Murray Cox (2)
Evelyn Oppenheimer book reviews on a Dallas station (1)	Kennedy assassination (1)
	Lowell Thomas (1)
	World War II (2)

Other respondents mentioned other kinds of programming. Two respondents mentioned listening to football on radio. One respondent mentioned Charles Fuller's "Old Time Gospel Hour."

Radio was a part of respondent's lives in other ways, too. In the 1950s, one woman respondent had written and hosted a local Denton radio show "Social Calendar," on KDNT about events of interest to women. One man was a ham and shortwave radio hobbyist.

Ages 65 and Over

The majority of respondents (N=99) still own radios, as reported in table 36. However, the nature of radio programming has changed dramatically. Radio dramas are a thing of the past, as are variety shows. Radio programming is now oriented toward music or news and information. Two individuals indicated that hearing problems interfered with or prevented their listening to the radio, but two

respondents with severe eye problems depended heavily on the radio.

Music

Over one-quarter of the respondents (N=26) indicated that they listen to music on the radio. Six listen to music to fall asleep. Four keep the radio on all night in case they wake up, three keep the radio on all day if they are at home. Three listen while in the kitchen, doing housework, or sewing. One individual who used the National Library Service for the Blind and Physically Handicapped kept the radio on practically around the clock. One reported listening while driving.

Four listen to country music; one to gospel, seven to easy listening, popular, or big band; and three to classical, light classical or opera, particularly the Texaco broadcasts of the Metropolitan Opera.

Sports

Listening to sports broadcasts is a popular use of the radio. Four respondents indicated that they listen to "sports." Three listen to football, particularly blacked-out games, and one watches baseball on television, but listens on radio. One respondent listens for racing results.

News and Information

Nearly one-quarter of the respondents (N=23) listen for news or information. Fifteen of 23 listen to the radio in the event of weather emergencies. Ten of 23 listen for news, and three prefer the radio to television news. One respondent with severe eye problems listens every half hour for news. One listens for broadcasts of school board meetings, one for stock market reports, and one listens to Larry King on radio. Four respondents listen to religious programs on radio. The same man mentioned as a radio hobbyist for the past period (ages 40-55) continues to have radio as a hobby and has shortwave, police scanners, weather radio, and airline scanners.

Radio Reading Service

As previously reported, no one used the Radio Reading Service either in the past (ages 40-55) or the present (ages 65 and over). However, a few (N=6) respondents had heard of the service during the previous period (ages 40-55).

For the present period (ages 65 and over), a few more (N=3) respondents had become aware of the Radio Reading Service. Four respondents requested additional information for themselves or someone else, and one respondent, already using the National Library Service for the Blind and Physically Handicapped, followed through and became a user of the service.

Radio Listening for Past and Present Crosstabulated
by Sex

It can be observed that radio listening declined from the past to the present. The variables were computed from the answers given in the "scripts" for questions 8 and 34:
Did/Do you listen to a morning news show? = RDHRMNA or

RDHRMNB

Did/Do you listen to other shows in the morning? = RDHRMA or
RDHRMB

Two of the variables were then added:

$$\text{RDHRMNA} + \text{RDHRMA} = \text{RDMA}$$

or

$$\text{RDHRMNB} + \text{RDHRMB} = \text{RDMB}$$

Did/Do you listen to a noon news show? = RDHRNNA or RDHRNNB

Did you listen to other shows in the afternoon? = RDHRNA or
RDHRNB

Two of the variables were then added:

$$\text{RDHRNNA} + \text{RDHRNA} = \text{RDNA}$$

or

$$\text{RDHRNNB} + \text{RDHRNB} = \text{RDNB}$$

Did you listen to an evening news show? = RDHRENA or RDHRENB

Did you listen to other shows in the evening? = RDHREA or
RDHREB

Two of the variables were then added:

$$\text{RDHRENA} + \text{RDHREA} = \text{RDEA}$$

or

$$\text{RDHRENB} + \text{RDHREB} = \text{RDEB}$$

The total number of hours of daily radio listening was taken by adding all the variables for question 8 or question 34: So you listened to the radio approximately _____ hours day from ages 40-55 (ages 65 and over)?

$$\text{RDHRMNA} + \text{RDHRMA} + \text{RDHRNNA} + \text{RDHRNA} + \text{RDHRENA} + \text{RDHREA} =$$

$$\text{RDHRSA}$$

or

$$\text{RDHRMNB} + \text{RDHRMB} + \text{RDHRNNB} + \text{RDHRNB} + \text{RDHRENB} + \text{RDHREB} =$$

$$\text{RDHRSB}$$

The variable for those that listened to the radio less than 15 minutes a day for each time period (RDMINA or RDMINB) was then added for the total:

$$\text{RDHRSA} + \text{RDMINA} = \text{RHRSA}$$

or

$$\text{RDHRSB} + \text{RDMINB} = \text{RHRSB}$$

The results are in the following tables. One respondent refused to indicate the number of hours spent listening to the radio daily for both the past and present.

Ages 40-55

Morning Programming

For the past period (ages 40-55), over half of the respondents (N=58) did not listen to morning radio programming (see table 171). Quite a few (N=33) listened for 15 minutes to 1 hour. Several (N=9) listened for one

-and-one-half hours to 3 hours.

Table 171.--Crosstabulation: RDMA By SEX

SEX->	Count	MALE	FEMALE	Row Total
		1	2	
RDMA	.00	10	48	58
	.25	2	2	4
	.50	2	14	16
	.75		1	1
	.83		1	1
	1.00	1	10	11
	1.50		4	4
	1.95	1		1
	2.00		2	2
	2.50		1	1
	3.00		1	1
	Column Total	16	84	100
		16.0	84.0	100.0

Number of Missing Observations = 1

Afternoon Programming

For the past period (ages 40-55), the majority (N=71) did not listen to radio programming in the afternoon, as noted in table 172. Several (N=17) listened from 20 minutes to 1 hour. Several more (N=12) listened from one-and-one-quarter hours to 3 hours.

Table 172.--Crosstabulation: RDNA By SEX

SEX->	Count	MALE	FEMALE	Row Total
		1	2	
RDNA	.00	13	58	71
	.33		1	1
	.50	1	12	13
	1.00	1	2	3
	1.25	1		1
	1.50		3	3
	2.00		6	6
	3.00		2	2
	Column Total	16	84	100
		16.0	84.0	100.0
Number of Missing Observations =				1

Evening Programming

For the past period (ages 40-55), almost half (N=47) did not listen to the radio in the evening (see table 173). Most of the remainder (N=59) listened to the radio from 15 minutes to 3 hours in the evening. One respondent listened to the radio for 5 hours in the evening.

Table 173.--Crosstabulation: RDEA By SEX

SEX->	Count	MALE	FEMALE	Row Total
		1	2	
RDEA	.00	7	40	47
	.25	1		1

Table 173--Continued.

SEX->	Count	MALE	FEMALE	Row Total
		1	2	
RDEA	.50	1	12	13
	.75		2	2
	1.00	3	14	17
	1.50	1	2	3
	2.00	3	10	13
	2.50		2	2
	3.00		1	1
	5.00		1	1
	Column Total	16 16.0	84 84.0	100 100.0

Number of Missing Observations = 1

Total Hours of Daily Radio Listening

For the past period (ages 40-55), five respondents listened to the radio less than 15 minutes daily, as noted in table 174. The remainder of the respondents (N=95) listened to the radio from 9 to 15 hours daily.

Table 174.--Crosstabulation: RHRSA By SEX

SEX->	Count	MALE	FEMALE	Row Total
		1	2	
RHRSA	.17	1	4	5
	9.00	1	2	3
	9.25		2	2

Table 174.--Continued.

SEX->	Count	MALE	FEMALE	Row Total
		1	2	
RHRSA	9.33	1		1
	9.50	3	10	13
	10.00	5	17	22
	10.25	1	1	2
	10.50		8	8
	10.75		1	1
	11.00	2	16	18
	11.16		1	1
	11.25		1	1
	11.50		3	3
	11.75		2	2
	12.00		6	6
	12.50	1	2	3
	13.00		3	3
	13.50		1	1
	14.00		3	3
	14.25	1		1
	15.00		1	1
Column Total		16	84	100
		16.0	84.0	100.0

Number of Missing Observations = 1

Ages 65 and Over

Morning Programming

For the present period (ages 65 and over), over three-quarters of the respondents (N=76) did not listen to morning radio programming (see table 175). The remainder (N=24) listen to morning programming from 15 minutes to three-and-one-half hours in the morning.

Table 175.--Crosstabulation: RDMB By SEX

SEX->	Count	MALE	FEMALE	Row Total
		1	2	
RDMB	.00	14	62	76
	.25	1	1	2
	.50		11	11
	1.00		7	7
	1.50		1	1
	2.25		1	1
	3.00	1		1
	3.50		1	1
Column Total		16	84	100
		16.0	84.0	100.0

Number of Missing Observations = 1

Afternoon Programming

For the present period (ages 65 and over), the majority (N=92) did not listen to afternoon radio programming, as noted in table 176. The remainder (N=8) listened to

afternoon programming from 15 minutes to two-and-one-half hours daily.

Table 176.--Crosstabulation: RDNB By SEX

SEX->	Count	MALE 1	FEMALE 2	Row Total
RDNB	.00	15	77	92
	.25		1	1
	.50		1	1
	1.00		4	4
	2.50	1	1	2
	Column Total	16 16.0	84 84.0	100 100.0

Number of Missing Observations = 1

Evening Programming

For the present period (ages 65 and over), a majority (N=77) did not listen to evening radio programming. Of the remainder, most (N=21) listened to evening programming from 15 minutes to two-and-one-half hours. Only two respondents listened to evening programming for 6 and six-and-one-half hours, respectively.

Table 177.--Crosstabulation: RDEB By SEX

SEX->	Count	MALE 1	FEMALE 2	Row Total
RDEB	.00	13	64	77
	.25	1	3	4

Table 177.--Continued.

SEX->	Count	MALE 1	FEMALE 2	Row Total
RDEB	.50		8	8
	1.00	2	3	5
	1.50		1	1
	2.00		2	2
	2.50		1	1
	6.00		1	1
	6.50		1	1
	Column Total	16 16.0	84 84.0	100 100.0

Number of Missing Observations = 1

Total Hours of Daily Radio Listening

For the present period (ages 65 and over), the number listening to the radio less than 15 minutes daily increased (N=28), as noted in table 178. The remainder of the respondents listened to the radio from 9 hours to 19 hours daily. To review, four keep the radio on all night in case they wake up and three keep the radio on all day if they are at home.

Table 178.--Crosstabulation: RHRSB By SEX

SEX->	Count	MALE 1	FEMALE 2	Row Total
RHRSB	.17	4	24	28

Table 178.--Crosstabulation: RHRSB By SEX

SEX->	Count	MALE	FEMALE	Row Total
		1	2	
RHRSB	9.00	2	7	9
	9.25	1	5	6
	9.50	3	18	21
	9.75		3	3
	10.00	4	13	17
	10.25	1	1	2
	10.50		1	1
	11.00		6	6
	11.50		1	1
	12.00		1	1
	14.50	1		1
	15.50		2	2
	16.25		1	1
	19.00		1	1
	Column	16	84	100
	Total	16.0	84.0	100.0

Number of Missing Observations = 1

APPENDIX G

SAMPLE LETTER

SAMPLE LETTER

July 15, 1987

Mrs. Anne Smith*
Fairhaven, #62
2400 Bell Avenue
Denton, Texas 76201

Dear Mrs. Smith,

As the final phase of my doctoral program in the School of Library and Information Sciences at North Texas State University, I have developed a survey to investigate the changes which occur in the reading habits of adults over a period of time, with a particular emphasis on discovering how patterns change from the period when individuals are age 40 to age 55, to the period when they are 65 and over. The results of this study should provide valuable information which will help librarians and others develop services and programs to meet the needs of older adults.

With the permission of Mary Otis, your administrator at Fairhaven, I have been allowed to request your participation in this study. The interview will consist of two sections. The first section will have questions about your reading habits and the places where you obtained information for the period in your life when you were age 40 to age 55. The second section will have similar questions on the same topic for the present period in your life.

The interview will be conducted on an individual basis and all answers will be confidential. Your name will not be used and your replies will not be discussed with any other participant. Since only 100 participants are being included in this study, your contribution will affect its success in a very real sense.

I will contact you by telephone in a few days to determine if you are interested in participating and to schedule a time for the interview. Thank you very much for your participation and cooperation.

Sincerely yours,

Mary Jane Barnett
Project Investigator

*The name used is fictional.

APPENDIX H
INFORMED CONSENT

INFORMED CONSENT

NAME OF SUBJECT: _____

1. I hereby give consent to Mary Jane Barnett to perform the following investigational procedure or treatment:

An interview schedule will be administered privately, on an individual basis, on the subject of habits of reading and information acquisition for the purpose of obtaining information which may lead to more effective information services for older adults. Questions will be asked verbally and each participant will respond verbally. Answers will be recorded by the interviewer on a form designed for the purpose. Prompt cards with the lists of responses will be used to assist individuals, if they so desire.

Confidentiality will be maintained by assigning a unique number to each set of responses, and avoiding the use of personal names in the final report. Participants' responses will not be discussed with other participants. The participant may decline to answer any questions which are found to be objectionable. No additional risks are known to exist.

The information derived from the interviews should help librarians and others to provide services to older adults, and the participants will contribute valuable knowledge to an educational research project. The participant may fill out the interview schedule personally, at his or her leisure, if desired.

The investigator will be happy to answer any additional inquiries concerning this project or the procedures involved, and an individual is free to withdraw his or her consent and to discontinue participation in the project or activity at any time without prejudice to the individual.

2. I have seen a clear explanation and understand the nature of the procedure or treatment; possible alternative procedures that would be advantageous to me; and the attendant discomforts or risks involved and the possibility of complications which might arise. I have seen a clear explanation and understand the benefits to be expected. I understand that the procedure is investigational and that I may withdraw my consent for my status. With my understanding of this, having received this information and satisfactory answers to the questions I have asked, I voluntarily consent to the procedure designated in Paragraph 1 above.

Date: _____

Signed: _____
Witness

Signed: _____
Subject

Signed: _____
 Witness

Signed: _____
 Person Responsible

Relationship

Instructions to persons authorized to sign:

If the subject is not competent, the persons responsible shall be the legal appointed guardian or legally authorized representative.

If the subject is a minor under 18 years of age, the person responsible is the mother or father or legally appointed guardian.

If the subject is unable to write his name, the following is legally acceptable:

John H. (His X Mark) Doe and two (2) witnesses.

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