



The impact of life choice on aging
by Lora Smith MacKay

A thesis submitted to the Graduate Faculty in partial fulfillment of the requirements for the degree of
MASTER OF SCIENCE in Home Economics
Montana State University
© Copyright by Lora Smith MacKay (1973)

Abstract:

Research has indicated that the elderly tend to disengage themselves from many of life's responsibilities and activities as they grow older. The purpose of this study was to determine which intervening variables affect the elderly's formal social involvement and mobility. Physical restriction, marital status, employment status, and comparative biographical assessment were isolated as major intervening variables. Sex, age, education, income and physical health were, additionally, examined for their affect on the relationship.

The Social Indicators Study questionnaire was administered to 88 rural residents of Musselshell County, Montana, aged 65 and older. From the questionnaire data, major variables were examined for relationships with the use of the chi square test of independence.

Several variables were found to be significantly related. Dependency on others, poor health, low income, education, not owning automobiles, and non-voting behavior were related to a high degree of physical restriction. Having a high income, easily maintained homes, their own forms of transportation, and little dependency on others were related to the elderly's ability to travel locally and outside of the area. Poor physical health was related to inability of the aged to travel on a long distance basis.

Statement of Permission to Copy

In presenting this thesis in partial fulfillment of the requirements for an advanced degree at Montana State University, I agree that the Library shall make it freely available for inspection. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by my major professor, or, in his absence, by the Director of Libraries. It is understood that any copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Signature *Sara Smith MacKay*
Date *August 10, 1973*

THE IMPACT OF LIFE CHOICE ON AGING

by

LORA SMITH MACKAY

A thesis submitted to the Graduate Faculty in partial
fulfillment of the requirements for the degree

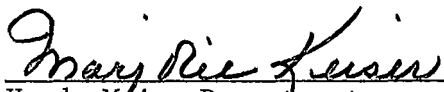
of

MASTER OF SCIENCE

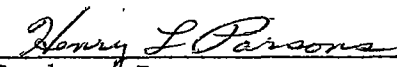
in

Home Economics

Approved:


Head, Major Department


Chairman, Examining Committee


Graduate Dean

MONTANA STATE UNIVERSITY
Bozeman, Montana

August, 1973

ACKNOWLEDGMENT

Of all the many special persons contributing to this study, it is to the senior citizens of Roundup that the author's foremost and sincere thanks are extended.

To the Montana State Commission on Aging who commissioned and financed this study, to the Montana State University Agricultural Experiment Station for support and partial funding, and to Mr. Hugo Tureck as project director, the author expresses her deepest appreciation.

Each of the following persons who contributed hours of time in the development of the study and the interviewing process deserve a special thank you: John Wylie, Mary Sullivan, Steve Wallace, Steve Weimann, Jean Hill, and Shiela Westberg.

For his professional competency, willingness to freely give of his time, and especially, for his endless moral support, I feel most indebted to my Committee Chairman, Dr. Robert W. Lind. Special thanks are extended to Dr. Marjorie B. Keiser, Director of Home Economics, Dr. Eric R. Strohmeyer, and Mr. Hugo Tureck for their extremely helpful assistance on the Graduate Committee.

Enough appreciation cannot be extended my husband, child, and parents, whose love, encouragement, and refreshing humor have been unceasing through long months of preparation. My accomplishments are due to a large extent to their cheerful cooperation and confidence in my abilities.

TABLE OF CONTENTS

	Page
LIST OF TABLES.	vi
LIST OF FIGURES	ix
ABSTRACT.	x
CHAPTER	
I INTRODUCTION	1
Purpose	7
Selected Variables	7
Hypotheses	8
Definitions	10
II REVIEW OF LITERATURE	13
Physical and Mental Capacity Studies	13
Cultural Expectations and Roles of the Aged.	22
Social Behavior Studies of the Aged.	32
Attitudes, Values, Beliefs, and Life Choice.	42
III METHODOLOGY.	48
Description of Community	49
Selection of Sample	51
Instrument	53
Coding of Instrument	56
Analysis of Data	56

CHAPTER	Page
IV RESULTS AND DISCUSSION	57
Description of Subjects.	57
Hypotheses Analysis and Discussion of Results.	64
V SUMMARY, CONCLUSIONS AND RECOMMENDATIONS	109
Summary.	109
Conclusions.	113
Recommendations.	114
REFERENCES.	118
APPENDIX.	125

LIST OF TABLES

TABLE		Page
1	Description of Subjects.	58
2	The Effect of Physical Restriction on Formal Social Involvement	66
3	The Relationship Between Physical Restrictions and Sex of Respondents	70
4	The Effect of Physical Health on Physical Restriction.	71
5	The Relationship Between Physical Restriction and Age of Respondents	73
6	The Effect of Income Level on Physical Restriction.	74
7	The Relationship Between Physical Restriction and Comparative Biographical Assessment.	76
8	The Effect of Marital Status on Physical Restriction	78
9	The Relationship Between Physical Restrictions and Education.	79
10	The Effect of Present Employment Status on Physical Restriction	80
11	The Relationship Between Physical Restriction and Mobility	81
12	The Effect of Formal Social Involvement on Mobility.	84
13	The Relationship Between Mobility and Sex of Respondents	86
14	The Effect of Physical Health on Mobility.	87

TABLE		Page
15	The Relationship Between Mobility and Age of Respondents	88
16	The Effect of Income Level on Mobility	89
17	The Relationship Between Mobility and Marital Status	91
18	The Effect of Employment Status on Mobility.	92
19	The Relationship Between Formal Social Involvement and Sex of Respondents	93
20	The Effect of Education on Formal Social Involvement	94
21	The Relationship Between Formal Social Involvement and Level of Income.	96
22	The Effect of Physical Health on Formal Social Involvement	97
23	The Relationship Between Formal Social Involvement and Age of Respondents	98
24	The Effect of Marital Status on Formal Social Involvement	99
25	The Relationship Between Formal Social Involvement and Employment Status.	100
26	The Effect of Formal Social Involvement on Comparative Biographical Assessment.	101
27	The Relationship Between Comparative Biographical Assessment and Age	103
28	The Effect of Marital Status on Comparative Biographical Assessment.	104
29	The Relationship Between Comparative Biographical Assessment and Education	105

TABLE		Page
30	The Effect of Physical Health on Comparative Biographical Assessment.	106
31	The Relationship Between Comparative Biographical Assessment and Income.	107
32	The Effect of Employment Status on Comparative Biographical Assessment.	108

LIST OF FIGURES

FIGURE		Page
1	Population by Age and Sex.	52
2	Musselshell County	54

ABSTRACT

Research has indicated that the elderly tend to disengage themselves from many of life's responsibilities and activities as they grow older. The purpose of this study was to determine which intervening variables affect the elderly's formal social involvement and mobility. Physical restriction, marital status, employment status, and comparative biographical assessment were isolated as major intervening variables. Sex, age, education, income and physical health were, additionally, examined for their affect on the relationship.

The Social Indicators Study questionnaire was administered to 88 rural residents of Musselshell County, Montana, aged 65 and older. From the questionnaire data, major variables were examined for relationships with the use of the chi square test of independence.

Several variables were found to be significantly related. Dependency on others, poor health, low income, education, not owning automobiles, and non-voting behavior were related to a high degree of physical restriction. Having a high income, easily maintained homes, their own forms of transportation, and little dependency on others were related to the elderly's ability to travel locally and outside of the area. Poor physical health was related to inability of the aged to travel on a long distance basis.

CHAPTER I

INTRODUCTION

Senior citizens have become of increasing importance in our society. According to 1970 census reports, the percentage of Americans 65 years and older has risen from a mere four per cent in 1900 to a total of ten percent of the population. Unlike other age groups, 90 per cent of the 20 million aged are registered voters, and two-thirds of this group vote regularly emphasizing and expressing their needs (Butler, 1973). Like the pressing urgency of rising venereal disease rates, the cry of the aged is becoming statistically louder and louder. Their vociferousness would seem to facilitate our understanding of the elderly's needs and present life alternatives. Quite the opposite is true, however. Active political groups such as the American Association of Retired Persons are arguing that a deaf society has left the elderly but one behavioral alternative in life.

This "terminal sick role" was noted by Lipman (1969) to have implications for both the physical and economic realms of life and by nature is an ascribed, not selected, status. With no stipulation of recovery, the terminals are expected to remain passively in this dying state. Permanent dependency is sanctioned for a variety of people, including the handicapped, the criminals, the mentally ill, AFCD persons, the disabled, the widows, and particularly, the aged.

Having matured under the dual influences of Herbert Spencer's social Darwinism and the Protestant ethic, the aged are incapable of accepting this role without feeling a sense of failure and self-degradation. This status was aptly described by Shanas (1968) in the following:

One might say that illness, is, therefore, a kind of alienation in American society, alienation from a set of expectations that puts particular stress upon independent achievement. The passivity and dependence involved in illness are also characteristics of behavior which are counter to the activism of American society (pp. 57-58).

Radically deviant from the norms of the Protestant ethic, the elderly appear to have been considered untouchables. Lepers were sent baskets of food or in present terminology, social security, but also were offered few behavioral alternatives.

Much research data has dealt quickly with the aged by means of a stereotype, which allows little room for question or individual variation. Hazell (1965) has defined the parameters of aging in terms of wrinkling skin, decay or total loss of teeth, atrophy of the jaw bone, a variety of visual and auditory disturbances, diminishing sense of taste and smell, and general progressive debilitation of the body's major systems. Tibbitts (1960) further noted the correlation between aging and extreme frailty, invalidism, slowed mental processes, decreased activity, self-contemplation, and voluntary abandonment of an independent style of living. Researchers are only beginning to question the stereotyped myth of the aged as an homogenous, senile,

passively tranquil, unproductive, and generally rigid group. With reference to the physiological homogeneity of the aged, Koller clarifies:

The overall physical impact of the aging process appears to be losses, declination of functions, involutions or decreases in weight of organs or tissues, desiccation, retrograde movement, and progressive degeneration. The downward course, however, is not uniform in the sense that every organ and every system displays progressive disabilities. Gerontologists commonly note a comparatively "youthful" cardiovascular system, a relatively "middle-aged" muscular or skeletal system, and an "old" digestive system within the same individual (p. 48).

Although relatively little has been done in linking these changes to psychosomatic origin, the National Institute of Mental Health offered its study results as early as 1963. Speed and response in testing were noted to be closely associated with environmental deprivation and depression. Sensory loss affecting some 30 per cent of the aged was seen to facilitate suspiciousness, paranoia, and disturbed communications which resulted in the invalidating of most tests.

Like the physiological processes, the measured cognitive processes of the elderly show variable changes with age. Many noncognitive factors such as the culturally valued speed of response, health of the individual, and motive state seem to be inextricably bound to performance. According to many of the contemporary studies, verbal ability, stored information, vocabulary functions, memory recall of minute details of the past, and total performance of complex tasks may often increase with age (Tibbitts, 1960; Botwinick,

1967; Rosenfelt, 1965; Koller, 1968). Continued mental stimulation was singled out as important to memory tasks in a study of persons in highly intellectual professions (Istomina, 1967, 68). This study indicated that older professionals were slower in the area of rote memorization of unrelated data, but that comparatively, their logically mediated memory accompanied by high-level cognitive activity remained constant or increased. Likewise, the aged appears to encompass too varied a group for the label of resistance to change to be applicable. The level of education of the older person, his attitudes, values, and beliefs, and the very immediacy of his life were shown to correlate closely with conservatism or liberalism (Field, 1968).

Intervening variables such as physical restrictions and rôle losses which may serve to limit the behavioral alternatives of the elderly need further consideration. Many are appalled by the physical plight of the aged. Senior citizens comprise ten per cent of the total population and yet, 20 per cent of America's poor. Their household income is currently less than one-half that of other households. Social Security benefits pay an average of \$118 per month, but this figure drastically decreases if the aged person is able to supplement it by part time work. Existing assistance programs like Medicare pay 43 to 45 per cent of the health bill but fail to cover such life

necessities as hearing aids, glasses, dental care, and drug supplies. Of the 95 per cent of elderly not living in institutions, 30 per cent live in housing federally defined as substandard. Maintenance of the deteriorating homes owned by two-thirds of these aged has become a very real concern (Butler, 1973; Shaffer, 1971).

Educational disparities would appear to further disadvantage our senior citizens. Riley (1968) explained that of the aged 75 years or older, 75 per cent have had only eight years of formal schooling. Within the 25 to 29 year age bracket, however, 83 per cent have had more than this minute amount of educational preparation.

The impact of another form of restriction, social isolation, is difficult to extract from the literature on aging today. Evans and Brown's study of the aged in Montana (1970) indicated, however, that even in Montana limiting factors may operate in a self-fulfilling prophecy nature not unlike the poverty cycle in ghettos. They wrote of such a cycle:

Public services that would tend to bring the aged into at least casual social relations with others in rural settings are decreasing in numbers. . . Health services, in particular, which the elderly so greatly depend upon to keep them socially mobile, according to Ellenbogen, tend to be inadequate or unavailable in rural areas (Ellenbogen, 1967, p. 207). Thus the rural aged are not only left without sufficient social opportunities where they reside, but often without the needed mobility to get where there are such opportunities. The result is that they tend to become increasingly socially isolated (p. 115).

The effects of interrelationship losses and the availability of alternative replacements are major questions of importance to this study. Several preceding analyses have indicated that the losses of work, spouse, child, sibling; grandchild, and the variety of associates at work or in the community may have important consequences for the elderly. Shanas found in her study of the aged in three industrial societies (1968) that those recently deprived of a close relative reported extreme loneliness. She further noted that in all three countries, approximately two-fifths of the aged are widowed, separated or divorced.

Block and his associates (1972) reported that familial role loss had implications far more serious than loneliness for a sector of the group analyzed. Widowers appear to be in a particularly precarious position with regard to will to live. This group's suicide rate significantly surpassed husbands, wives, and widows. Counteracting alternative relationships such as close kin networks, the domestic role and involvement in formal organizations were noted to have not been adequately developed by men. A "life choice study could offer further analysis of the correlation between role loss and general activity and involvement.

Before allegations of aged role reversal and dependency upon children and relatives may be seriously considered, further research needs to be done. The extent to which physical restrictions and role

losses force dependency will be investigated in this study. In preparation, in-depth data on present familistic interaction patterns of the aged are difficult to obtain. Some empirical studies have indicated that the interactive relationships between parents and children are ones of mutual support and that no widespread role reversal or conflict exists. A variation of aged familial interaction appears when urban-rural criteria are considered. From his study of five Wisconsin communities, Bultena (1969) reported:

Contrary to expectations, the urban children see their parents more frequently than do their rural counterparts. Forty-five percent of the urban children, and 29 percent of the rural, were reported as being seen by their parents at least once a week. Thirty-four and 25 percent, respectively, were seen only a few times a year or less (p. 9).

Purpose

The major purpose of this study was to determine which intervening variables affect the rural elderly's formal social involvement and mobility. Physical restriction, marital status, employment status, and comparative biographical assessment have been isolated as major variables.

Selected Variables

Although it is impossible to determine in advance all variables which may be of importance to this study, prior research has indicated

that certain demographic factors influence analyses to varying degrees. These variables of sex, age, marital status, education, income, employment status, and physical health seem to merit general consideration. Beyond these basic criteria, factors of physical restriction, mobility, comparative biographical assessment, and formal social involvement were selected for investigation. The interaction between marital and employment statuses and general social involvement has been previously noted in research studies by Block (1972). Although the remainder of these variables have not been documented in the existing contemporary data on aging, they appear to be of particular importance to this research.

Hypotheses

1. Rural elderly having a high degree of physical restriction will:
 - a) have a low degree of formal social involvement
 - b) be more predominantly male than female
 - c) have a low degree of physical health
 - d) be more advanced in age
 - e) have a lower level of income
 - f) have a lower comparative biographical assessment
 - g) be more predominantly single than married

- h) have completed fewer years of formal education
- i) be more predominantly non-working than working
- j) have a low degree of mobility

2. Rural elderly having a high degree of mobility will:

- a) have a high degree of formal social involvement
- b) be more predominantly female than male
- c) have a higher degree of physical health
- d) be less advanced in age
- e) have a higher level of income
- f) be more predominantly married than single
- g) be more predominantly working than non-working

3. Rural elderly having a high degree of formal social involvement will:

- a) be more predominantly female than male
- b) have completed more years of formal education
- c) have a higher level of income
- d) have a higher degree of physical health
- e) be less advanced in age
- f) be more predominantly married than single
- g) be more predominantly working than non-working

4. Rural elderly having a high comparative biographical assessment will:

- a) have a high degree of formal social involvement

- b) be less advanced in age
- c) be more predominantly married than single
- d) have completed more years of formal education
- e) have a higher degree of physical health
- f) have a higher level of income
- g) be more predominantly working than non-working

Definitions

In defining the aged, countless perspectives could be considered with equally plausible rationale. Sociological, psychological, and physiological ramifications become readily apparent. A person may be as old as he is expected to be, thinks or feels he is, and is physically diagnosed to be. For simplification purposes, however, this study incorporated the following statement from Butler (1973) in the definition of the concept of aging:

Aging, of course, begins with conception. The selection of age 65 for use as the demarcation between middle and old age is an arbitrary one, borrowed from the social legislation of Chancellor Otto von Bismarck in the 1880's. This definition of old age has been adhered to for social purposes--as a means for determining the point of retirement or the point of eligibility for various services available to the elderly. But the age of 65 has little relevance in describing other aspects of functioning such as general health, mental capacity, psychological or physical endurance, or creativity (p. 4).

Major variables analyzed in the life choice study of aging were operationally defined as follows:

Physical Restrictions: This variable indicates physical obstacles to interaction with others. Transportation facilities and costs, housing maintenance and costs, the physical proximity of children and relatives, the location of social facilities and friends, and spouse's health were the criteria selected to measure physical restriction.

Physical Health: The respondents' overall self-assessments of present physical health were the indicators of this criterion.

Comparative Biographical Assessment: The respondents' self-assessments of feeling worthwhile, useful, and responsible as compared to a prior point in life were used to define this variable.

Formal Social Involvement: This variable was identified by the criteria of respondents' social, religious, and political formally organized activity.

Mobility: In analyzing this variable, the major criterion of travel was considered. Physical movement about to see friends, to get out of the area for drives, and to purchase daily necessities were specifically analyzed.

Aged: Respondents 65 years and older were considered aged in this study.

Education: Elementary, secondary, post-secondary, and vocational levels of formal education define the parameters of this variable.

Income: This factor was defined to mean gross family income before taxes or other deductions. A family was assumed to mean members comprising a household and related by blood or marriage.

Employment Status: This criterion was sub-divided into two categories: working and non-working statuses. Full time and part time employed respondents were considered to be working. The unemployed, temporarily laid off, seasonal, retired, and housewives were defined to be non-working respondents.

Marital Status: This factor was sub-divided into two categories: the married and single statuses. The one group of married respondents comprised the first sub-category. The widowed, divorced, single, and separated were considered as the second group, the single status.

CHAPTER II

REVIEW OF LITERATURE

Physical and Mental Capacity Studies

One of the interesting questions in a study of aging is whether differences in individuals are to be attributed to the aging process, or are operative throughout life. Longitudinal studies would be helpful in dealing with this issue and clearing away much existing confusion. Such confusion has been expressed by several researchers. In Riley's (1968) review of health capacities of those 65 years and older, she noted that although 80 per cent of these 20 million persons have at least one chronic health condition, only 15 per cent of this group reported themselves too handicapped for regular employment or housework. Thirty-two per cent of the aged studied reported chronic health conditions, additionally, stated they had no activity limitations due to the chronic problem. From this study, the elderly appear to suffer from fewer acute illnesses compared with the rest of the population which may account for the surprisingly high activity level. Riley concluded that little evidence existed to confirm the general belief of health and physical capacity declining with age, when individuals are compared with their own health and capacity in earlier years.

Differences with respect to age gradations seems to be an important variable in reported physical health and capacity among the aged. In Shanas' study (1968) of the elderly in three industrial societies of Denmark, Britain, and the United States, the aged populations were sub-grouped into four age categories: 65 through 69, 70 through 74, 75 through 79, and 80 years and older. Shanas noted physical capacity differences by age increments in the following:

In all three countries, persons aged 65 to 69, both men and women, are functioning quite well as measured by the index of incapacity. From six to seven of every ten persons in this age group report that they have no difficulties whatsoever in going out of doors, walking stairs, washing and bathing, dressing and putting on shoes, and in cutting their toenails. Beginning with the cohort aged 70 to 74 in Denmark and in Great Britain, and that aged 75 to 79 in the United States, there is a change in physical capacity among the elderly. . . In the age cohort 80 and over, only two of every ten men and four of every ten women in Denmark, three of every ten men and two of every ten women in Britain, but five of every ten men and four of every ten women in the United States report no incapacity.

. . . Sensory impairments, particularly vertigo, are reported by old people in every age cohort. Women more often than men report being giddy, but irrespective of sex, the older the respondent the more likely he is to report some experience with vertigo. At ages 65 to 69, 12 per cent of the Danes, 10 per cent of the British, and 14 per cent of the Americans report that they had some experience with vertigo during the week before their interview. Among the aged 80 and over, however, 26 per cent of the Danes, 22 per cent of the British, and 23 per cent of the Americans report that they experienced vertigo during the past week (pp. 37-38).

Bultena and associates (1971) reported that advancing age was primarily responsible for the noted impact of health problems

and physical incapacities among the elderly population. In a National Health Survey of persons 65 and over, his investigation noted that chronic illnesses became increasingly prevalent with age increments and that one-fourth of those aged 74 and older as compared with one-tenth of those aged 65 to 74 years were unable to carry on a major activity.

Numerous descriptive analyses have been offered of the aged population's self-reported physical capacity and respective levels of education, income, and general socioeconomic class. The older population reviewed by Simpson (1966) as compared with a random sample of the general population were, respectively, of less education, lower income and social class level, and, correspondingly, judged their health to be poorer and listed more health problems. In this study, 72 per cent of the older group and 56 per cent of the general sample noted that health problems restricted their activities. Rose's study (1966) of socioeconomic class differences among the aged indicates that instances of no reported differences in physical capacity may be semantic in origin. From his observations of 210 non-institutionalized persons 65 to 85 years of age, he reported that although middle and lower class respondents did not indicate differing health statuses, the lower class aged replied significantly less favorably to the question of how they physically felt at this point in life.

Further question is thrown upon the blanket correlation of increasing age and decreasing physical capacity when the affects of social expectations are considered. Although Habner's study (1970) on age and capacity devaluation of 8,700 disabled, non-institutionalized civilians was not representative of the upper limits of the aged, his research offers support of this point. Social expectations were seen to reflect on respondents' expectations about the biological changes which aging brings. At each educational level, the older respondents consistently placed lower value on their physical capacity than the younger groups. Disability, defined as a chronic health condition or impairment limiting the kind or amount of work for six or more months, was noted to increase consistently with each age increment, although hospitalization and active sickness was seen to vary only slightly with age. Regardless of the indications of the "functional limitations index" used by Habner, the older group always reported disabilities of a more severe nature. His study cited research by Welford in 1958 which, additionally, revealed that actual ability deterioration on occupational skills was nearly negligible before 60 years of age. As expressed in other studies, the aged are expected to be less capable physically, and generally, cannot point to an institutionalized work role to negate this charge. Lipman and associates (1969) have epitomized the aged's position of expected physical incapability with the "terminal sick role" construct.

Notably the aged, the mentally ill, and other socially defined categories have been ascribed this status of terminal dependency upon others. By virtue of who they are, the aged's health and capacity is not only expected to be low, but is expected never to be restored.

In considering physical dependencies or incapacities, research findings have concluded that the degree of dependency changes very little over age, with the possible exception of the five per cent of the institutionalized aged. The visibility quotient of the aged's dependency appears to be the factor of importance in the labeling process. Kalish (1969) cogently summarized this perspective in these words:

Dependent relationships are not "regressed" to, they persist throughout the life of most people in our society. They are more troublesome in old age primarily because they are less elaborately disguised, and are expressed in ways that are less acceptable socially than before.

In fact our culture seems to favor the development of adults who derive gratification from a parasitic relationship with a parent substitute, rather than in nondependent social interactions with their peers (p. 3).

Numerous researchers have cited the psychosomatic bases of actual physiological aging which appear to originate in internalized social expectations. The "aged" person by society's standards, may think himself into old age. Maxwell Maltz (1960) noted in his analyses of aged persons that by harboring the expectations of growing older with all that this entails and setting up what he referred to as

"negative goal images," the aging person may behave in ways that physiologically bring about old age. He has cited an example of this behavior in the following excerpt from Psychocybernetics:

. . . We begin to taper off on both physical and mental activity. Cutting out practically all vigorous physical activity, we tend to lose some of the flexibility of our joints. Lack of exercise causes our capillaries to constrict and virtually disappear, and the supply of life-giving blood through our tissues is drastically curtailed. . . Dr. Selye has cultivated animal cell cultures within a living animal's body by implanting a hollow tube. For some unknown reason biologically new and "young" cells form inside this tube. Untended, however, they die within a month. However, if the fluid in the tube is washed daily, and waste products removed, the cells live indefinitely. They remain eternally "young" and neither "age" nor "die" (1960, p. 238).

Maltz further noted that the lack of activity and exercise prevalent among those persons who imagine themselves older results in deterioration of the capillary system, the channels through which bodily wastes are removed. In essence, if the mind pictures its goal as degenerative aging, the body sets about immediately to insure attainment of this end state. But under the harsh tyranny of the work ethic as a measure of fitness and its conspicuous unavailability to the aged, society has provided no suitable alternatives for them.

According to contemporary research (Butler, 1973; Hazell, 1965; Tibbitts, 1960), physical capacity losses were noted for the aged population but were not viewed as indigenous to that age sector. General sensory loss affecting some 30 per cent of the persons 65 and

older was reported to begin in the forties and fifties. The six leading reported chronic health conditions of the aged are heart conditions, arthritis and rheumatism, visual impairments, hypertension without heart involvement, mental and nervous conditions, and impairment of the lower extremities (Riley, 1968). Cardiovascular difficulties, interestingly enough were seen as characterizing old age. Butler and his associates have further correlated the stress and shock of retirement with coronary heart disease. They have cited studies by the National Institute of Mental Health which indicated that although 80 per cent of the aged have fair to adequate vision until 90 years of age, the noted decreases in visual acuity were significantly correlated with depression and environmental deprivation (1973).

Performance studies of physical and mental capacities of the elderly population have noted both increases and decreases in some areas but have universally disproved allegations of senility as a generalization. Tibbitts (1960) cited a study done by Corsini and Fassett in 1952 on 172 younger and older prisoners which revealed that hearing and IQ tests tended to remain constant with age, while verbal measurements increased. Tests requiring speed, acute vision, or close attention tended to decrease with advancing years. Total performance of complex tasks was noted by Tibbitts not to vary with age, although the method of completion and the amount of energy involved did. Significant variations were noted within each age

group observed. Botwinick and his research team have described the nature of this variability and concluded that:

Not all functions necessarily decrease with advancing years. In general, verbal abilities and stored information show little, if any, deficits in most people. For people of superior initial ability, these functions tend to improve with age. On the other hand, psychomotor skills, especially those involving speed and perceptual integrative abilities, decline appreciably and seem to do so for all levels of initial ability. The vocabulary functions in particular have been singled out for study because, as usually measured, they are found to be relatively impervious to change with age . . . many seem to improve until quite late in life (1967, pp. 187-188).

The possible effects of sensory impairment and built-in age discrimination in IQ tests' results notwithstanding, Botwinick has noted additional "non-cognitive" factors of education and motivation as responsible for much of the observed variability. The well-educated subjects were seen to do better in tests requiring elaboration of concepts, and the aged were significantly less well-educated than their tested counterparts (1967). With regard to memory testing, motivation appears to be of critical importance. Younger subjects may be familiar with the current labeling of concepts and present meanings of more importance to them, but as Koller (1968) has indicated in his studies, the past and its meanings were of far greater value to the aged. They were able to remember the most minute details, names, and dates associated with these past events.

Additionally it appears from cumulative data that the elderly adhere to attitudes and values which are functional to them. What has become tried and true among their principles is used even if it may be inappropriate in some types of testing. In Istomina's study (1967-68) of the comparative memories of younger and older persons engaged in highly intellectual professions, he found support for the correlation between continued intellectual activity and memory powers. The research on 30 professors or doctors of science and 30 students at institutes of higher learning revealed that memory was primarily dependent upon what the individual is dealing with and was more active in instances of the material being related to the professional area and if it was interesting. As Istomina noted in the following, some forms of retention were not functional for the elderly population studied:

While immediate rote memory noticeably worsens with age, the level of logically mediated memory, accompanied by active cognitive activity, not only does not fall but even rises somewhat. . . The widespread point of view that all aspects and forms of human memory decline with aging does not find support (p. 28).

In Talland's work with comparative performances of the younger and older populations (1968), he indicated that short-term memory deficiencies in segments of the older group were correlated with the aged's exposure to new material, definitions, and residual definitions of the past. In his study of redundancy in discrimination between complex stimuli among younger and older subjects, Talland has posed

the possibility of the older respondents requiring more time to sort through available, sensible alternatives on hand. In investigations by Hulicka and Weiss in 1965 in which initial short-term memory deficiencies were noted, retention did not vary with age provided the older subjects were given enough time to form replacement associations. Talland lends further support to this idea in his 1966 study in which he noted that the shapes of retention were approximately the same for all age groups with repeated free recall trials (1968).

Cultural Expectations and Roles of the Aged

Most contemporary research available has indicated that societal expectations and resultant roles for the elderly are at best ill-defined and highly controversial. It appears that due to this inherent ambiguity and insecurity of the aged's status, few elderly accept the position with equanimity. The problem of giving up one's previous status as an employed, productive contributor to society seems to negate smooth transition from the middle-aged to elderly group. In his study of 26 men 70 years and older who received social security but were not classified as financially dependent, Payne (1960) noted that the elderly significantly selected mature or middle-aged persons for identification, helpfulness, and advice-giving. Of the four age groups identified by pictures in this study, the elderly rarely chose their own age mates. Payne expressed in the following

that the expectations and status of the elderly were not desirable nor comfortable to accept:

The ease with which the infant or small child plays the dependent role inheres in his relative helplessness or lack of alternatives. . . . In contrast, certainly part of the difficulty with which the oldster accepts reversal of role inheres in the fact that to do so requires admission of "decreased" abilities and surrender of power and authority, as well as surrender of personal autonomy over achieved personality organization, as the admission that the specific other (the child) who was for so long his inferior-subordinate, has indeed become his superior. . . . the oldster can see nothing ahead but further submergence of his own will to that of others (p. 362).

Whether or not the dependency role, lessened status and prestige, and loss of authority actually describe the majority of persons in the aged group does not alter the impact of myths and mystiques (McCall, 1966). Such conceptions as illustrated have been noted to have very real consequences in terms of the elderly going outside their own age category for information and value support.

Societal expectations of dependency appear in part to have origin in much of the recent federal legislation. In contemporary studies of public action for the aged (Taves, 1965; Isenstadt, 1966; Maggs, 1966), analyses of what has been done for the aged were offered. The very labels of the three major sources of coverage, social security, Old Age and Survivors Disability Insurance, and Old Age Assistance, imply necessary dependency. Amendments to the Hill-Burton Act in 1964 extended the construction of medical facilities

five years, with long-term care facilities having been allotted from \$40 to \$70 million construction expenses. Yet, these studies have noted that 30 per cent of the elderly presently live in substandard housing. As of 1965, the Veterans Administration was to construct facilities for not less than 4,000 nursing home beds. Hospital and medical assistance to the elderly was reported to be grossly deficient with each state determining the amount of assistance aged persons received. Little progress appears to have been made in insuring income and the opportunity for employment of aged persons. Thirty-three per cent of the aged population were noted to be living at federally designated poverty level, yet the Department of Labor was still working to promote the concept that ability is ageless. Under social services legislation, the Public Welfare Amendments of 1962 offered 75 per cent federal sharing of costs in five areas of concern. These areas were money management, homemakers' service, transfer from institutions, visiting services, and foster family care services. Various other programs including the Foster Grandparents Program, teaching aides, and voluntary services programs were yet young, state-regulated, and highly variable in provisions.

Evans and Brown have revealed in their study of the aged in Montana (1970) that numerous formal organizations have been created especially for the elderly group. Presently in Montana the aged have 65 organizations with a listed total membership of 10,250, although

the average attendance ratio was noted to be only 2,130. Fourteen Senior Citizens Centers exist in Montana with listed membership of 6,750. But of the large recorded membership, only 500 senior citizens participate daily in these Centers' activities. In addition to the Senior Citizens Centers, profession-related retirement groups such as the Retired Railroad Employees, American Association of Retired Persons, National Association of Retired Teachers, National Association of Retired Civil Employees, and the American Legion Auxiliary were noted to have been organized to replace the previous work role status. The limited number of aged belonging to both mixed age groups and organizations prior to retirement was emphasized in this research.

Although Butler (1973) noted that the elderly somehow are able to earn 29 per cent of their income through full-time, part-time, or "bootleg" employment, retirement appears to be a problematic role loss for many of the aged. The difficulty in adjusting to the ever-increasing compulsory retirement plans has become the. . . "product of the net loss or gain of social roles and positions of respect," according to Evans (1970, p. 27). Loss of respect appears to be of crucial importance in net gains and losses of retirement as was noted in Morse and Weiss' study in 1955 (Evans, 1970). In questioning 401 workmen as to what would be the most important loss with the advent of retirement, they reported that respondents indicated the loss of feeling useful, worthwhile, and concomitant lowered self-respect to be the most detrimental.

Research has indicated that the net loss and or gain inherent in retirement is dependent upon the factor of work identification. Bice and associates (1968) constructed a work-identification index based on the Guttman scale in the longitudinal study of 413 active farmers in five central Indiana counties. Respondents were categorized into high, medium, and low work identification categories. Following 30 of the farmers' retirement in 1960, this group was questioned about the retirement decision, experience, and their general satisfaction. The majority of the high work orientation group and none of the low orientation group reported forced retirement. Following formal retirement, 61 per cent of the high, 71 per cent of the middle, and 17 per cent of the low group still continued to work. Compared with the low group, Bice noted that the high and middle groups of aged retired were significantly more bored, dissatisfied, and frustrated by their acquired non-working status. Once again, the meaninglessness and uselessness of the status was mentioned by both the high and middle work orientation groups as the most difficult aspect of retirement.

In a study by Youmans (1961) of retirement satisfaction of rural and urban persons, the factors of place of residence, sex, and health were reported to be significant in retirement adjustment. The probability sample of 1,236 men and women aged 60 to 97 years incorporated Leo Srole's "anomia scale" of five statements measuring

pessimism among respondents. Rural respondents were noted to be primarily more pessimistic than their urban counterparts, and 48 per cent of the rural compared with 33 per cent of the urban agreed with the statement that life was getting worse. The factors of age, socio-economic status, and retirement were reported by Youmans to be noticeably correlated with retirement pessimism.

Research studies have indicated that the transition from full employment to retirement of the aged was more satisfactorily facilitated by financial and counseling preparation of the elderly for this role loss. Reid (1966) has cited a study completed by Edwin Schutz of the New York State School of Industrial and Labor Relations at Cornell University in which 299 industrial retirees of companies with pension plans and counseling and those with pension plans only were interviewed about retirement. Favorable responses regarding expectations of the future, satisfaction with retirement activities, finances, and health were noted with the retirees from companies offering both financial and counseling preparation for retirement. The pension plan was observed to affect only favorable feelings toward financial security and independence. Thompson and associates have studied the effect of retirement on personal adjustment among the aged and have noted similar findings with regard to financial preparation (1960). Using the Guttman Scale of scoring life

satisfaction, this investigation analyzed the constructs of satisfaction, dejection, and hopelessness on a longitudinal basis of an all-male sample of respondents. Measured maladjustment was seen primarily in the case of respondents who felt economically deprived, were in poorer health, and generally had difficulty keeping occupied. With this group, the indices of lack of satisfaction and dejection were reported to decline significantly, while hopelessness remained relatively constant for all respondents.

That society expects and consequently offers dependency affiliations for the aged has been documented by various research assumptions. Kalish (1969) has identified four major categories of "normal" dependencies of the aged population. Economic, physical, mental, and social natural dependencies arising from such losses acquired in aging were reported. Youth's attitude of tolerance as opposed to acceptance of the aged in a study of 400 high school and college students conducted by Lane (1964) was noted to indicate desired emancipation from a role perceived by the youth as being dependent.

Although social dependency has been cited as being "normal" or expected of the aged, research indicates that informal social roles of the over 65 population are less dependent in nature than those of the middle and younger age groups. In Kalish's report on social space and dependencies of three generations from the same

families, undergraduates, parents, and grandparents, he has noted that oldsters were significantly less dependent on important others and did not place heavier dependency loads on their relationships than the younger or middle groups. In the chart of "affectional exchange." the aged were seen to give more than they received, a reversal of the middle and younger respondents' behavior. Accuracy in all cases between self-perceptions and perceptions of others of the respondents was considered to be satisfactorily high (1969).

With the social organizational possibilities previously noted and the relative economic and age discriminatory bases, and aged persons in our society appear to have the necessary foundations for an influential political role in society. The elderly's actual political participation was noted by Lipman (1969) to be high enough for a possible voting bloc. That the threat of this role exists based on unrest and frustration with the system was exclaimed by Landis as early as 1942 when he related:

Never before in American political life have we had an organized social-political group based on age as such and representing the interests of a biologically differentiated group within the white population. . . may be as threatening to the foundations of democratic procedures as other class interests based on racial, social, and economic distinctions have been (1942, p. 467).

Research has indicated that the religious role or the promise of life after death is available to the aged as a substitute or augmentation of the roles presently afforded them. According to

Block's studies (1972), the elderly were more likely to perceive the possibility and belong to religious groups than any other formal role of this nature. Religiosity may further be considered under the category of compensatory behavior, one of the several personal adaptive techniques cited by Butler (1973). His investigations have revealed denial, projection, fixation, regression, displacement activities, idealization, selective memory and sensory reception, the exploitative use of old age, and busyness as further personal adaptations adopted in the face of threat and crises.

Loss of the spouse role has been noted in research to be particularly problematic to certain sectors of the aged population. In his random sample study of 2,544 aged non-institutionalized persons in Pinellas county, Florida, Block (1972) has reported that widowers were significantly higher in suicide rates than widows or their married counterparts. The widower was noted to be in a far more precarious position in terms of role replacement due to his lack of developed alternative relationships. To somewhat compensate for the absence of spouse, the widow was seen to have close kin networks, residual formal organizational participation, and the domestic role not lost via retirement. Shanas revealed from her study of the aged in Denmark, Britain, and the United States (1968) that sudden recent losses or deprivation of the spouse role was an important factor in

the adjustment of aged persons. In these instances, comparatively more severe loneliness and grief were reported by the respondents.

According to the Population Report of 1967 cited in Stinnet's study (1970), 80 per cent of the males and 65 per cent of the females 65 to 75 years of age and 58 per cent of the males and 20 per cent of the females 75 years and older were yet married. This existant role was noted to be significantly unsatisfactory for the females of the 227 husbands and wives interviewed. Stinnett employed the Marital Needs Satisfaction Scale composed of the items love, personality fulfillment, respect, communication, finding meanings in life, and integration of past experiences in evaluating the comparative satisfaction of men and women. This research concluded that men scored the highest on this scale due to the women's developed dependency and sensitivity to the inadequacies of their male spouses.

Parental and relative roles of the aged in our society are noted by research findings to be highly available to the majority of elderly. Shanas has indicated that two-fifths to one-half of the aged studied having only a son or a daughter lived a 30 minute drive away from them, but that of those elderly having more than one child, only one-fifth to one-fourth lived this far away. Sixteen per cent of the widowed as compared with two per cent of the married elderly in the United States were noted to be living in the household of a

married child. This study, additionally, revealed that helping patterns of the families and parents were of a two-way street nature for every social class, which seems to question the feared expectation of role-reversal between children and aged parents (1968). Research findings have not unanimously supported this conclusion, however, as indicated in Glasser's study (1962) of 120 elderly persons contacted through the Jewish Family and Children's Service at Detroit. This study, which may be generally considered non-representative due to the distinctive sample and high percentage of the elderly living with children, has noted some degree of role reversal and role conflict. These conclusions were based on the amount of financial aid received by the aged from their children.

Research has revealed that the grandparent role for the majority of the aged with living children is available to the elderly. Butler noted that in 1962, 70 per cent of the aged had living grandchildren, and 32 per cent of this group were great-grandparents (1973).

Social Behavior Studies of the Aged

Many of the social behavior studies of the aged have been based upon Cummings' construct (1960) of "disengagement," the freedom of old age from the variety and amount of previous social interaction. The disengagement hypothesis has been viewed as a two-way type of

severing of social participation with the major emphasis on the aged's voluntary descreasing of activity. Cummings' original study (1960) was based on a longitudinal stratified random sample survey of 107 men and women 50 and 90 years of age in the Kansas City metropolitan area. Her major hypothesis was that the variety of interaction would vary with age. This research incorporated both an interaction index based upon self-reports and a "social life space measure" which discriminated between high and low ranges of interaction with family and friends. These measures did not account for the duration of interaction. Cummings and associates reported low interaction scores of 28 to 85 per cent with correlating increments in age. On the social space measure, 14 per cent of the 50 to 54 years group and 82 per cent of the 70 to 74 years group were noted to be low on range of interaction. The second hypothesis of changes in amount and variety of interaction accompanied by changes in perception of life space was not significantly supported. Working respondents and those not measured to be restricted both perceived restriction. The study's finally hypothesized that a change in the quality of interaction would accompany a decrease in social life space, from absorption with others, evaluatively, to carefree absorption with self. This was supported only in the cases of working respondents who dropped significantly in approval-seeking. Non-workers decreased with age in love-seeking but increased in the need for approval, esteem, and

response from others. As the study was based solely on measures of "intuitive" judgment, provided only general age categories, and had a high longitudinal loss of cases through deaths, removals, and refusals, it appears that the validity of the research is questionable.

In a later investigation by Bultena (1971), the effects of physical health status on disengagement of a random sample of 300 rural men and women 65 years and older was measured. Respondents' health status was categorized objectively with the use of a 22 item National Health Survey and subjectively by self-reports. Good health was indicated to mean having one or no chronic health problems. Disengagement was noted to be high or low according to the frequency of respondents' face-to-face interaction with relatives and friends. Low and high categories were used in measuring morale on a modified "Life Satisfaction Index." Bultena reported in this study that although no significant relationship existed between the volume of social interaction and subjective or objective health scores, both decreased interaction with friends and poorer morale were related to health loss. His study has further indicated that disengagement did not bring improved morale to even the healthy respondents but that high morale progressively declined with diminished interaction.

The question of rural or urban residence as a factor in the subjective and objective economic disengagement was analyzed in a study

by Youmans (1966). Two age groups of males in a rural area and two age groups of males in an urban area were interviewed with respect to economic and income criteria. Youmans reported that all older respondents had indicated less economic deprivation and had made adaptations and adjustments to economic disengagement. The rural elderly, in particular, were noted to be less dissatisfied than their counterparts in the number of existing opportunities for gainful employment.

Studies such as the one conducted by Crawford (1971) have noted the general effects of retirement on disengagement. In her exploratory, longitudinal research of 39 married couples of the age range 45 to 72 years, separate pre- and post-retirement interviews for husbands and wives were arranged. From the first interview session, Crawford reported that over half of the persons would miss the company of work personnel, that only 35 per cent belonged to organizations outside the home unconnected with work, and that 67 of the 99 respondents disagreed with the physical aspects of work but did not desire to disengage. This study indicated that the advantages of working in terms of the social work role far outweighed the disadvantages or unpleasantness. With reference to the social necessity of the work role, Crawford cited Orback (1971) "We have institutionalized a system of rights without accepting the values and normative

system that it implies (p. 262)." That disengagement is not entered into voluntarily to the degree indicated in the Kansas City study (Cumming, 1960) was supported, as one-half of the men and women interviewed identified retirement with forced disengagement. Few, comparatively, indicated retirement to be a release from pressures for engagement in pleasurable hobbies or for engagement in a set of different activities. However, non-manual workers were less likely to identify retirement with forced disengagement.

In terms of response differentials in interviewing, Mercer and associates investigated the proposition that disengaged persons would be less willing to cooperate with survey questions (1967). Of the 16 per cent refusal response for those 60 to 69 years and the two per cent refusal rate for persons 16 to 19 years of age, complete activity forms were filled out from the city directory, the U. S. Census, and the power companies. Mercer noted that, comparatively, disengagement was not a factor in refusal rates providing the initial old age bias of the study was taken into consideration. This research indicated that there was no significant difference among refusers and non-refusers on the calculated indices of social participation and voting behavior.

As Riley (1968) has noted in her research on aging, the construct of disengagement is difficult to deal with until more studies

are done on a longitudinal basis. Research prior to this point has indicated that deprivations in the form of poor health, loss of spouse and forced retirement, not the general loss of activity or busyness, were correlated with low satisfaction on the feelings of uselessness and unhappiness. It therefore appears that cultural expectations, roles and life patterns of each individual respondent have been erroneously ignored in the early disengagement research. Rosenfelt (1965) summarized her reflections on disengagement by saying:

Let him brace himself for isolation and rejection. Everyone knows disengagement is a two-way process and more the second way than the first, meaning that external forces are most cogent to the outcome than the individual's voluntary relinquishment of roles that bind him to ongoing society. Worse than isolation is the mental ill-health that follows it, this concept being a euphemism for loneliness, which sounds too sentimental for modern usage. The nadir of the process is, of course, institutionalization of the aged--not always a necessary or desirable outcome, but a practical method of storage until death. . . The views of Orland (1964), comparing mental asylums for the old with Nazi death camps, offer food for reflection (p. 39).

Numerous investigations of the elderly's social participation have been made and have indicated a variety of variables of importance. The rural residence factor was studied by Mayo (1951), incorporating the use of the Chapin Social Participation Scale of formal organizational involvement. For the age range of formal organizational participation was found in the 55 to 59 age group

and particularly among white females. Most of the positions of leadership and four-fifths of the total formal participation of the rural elderly was noted to be in religious activities. Furthermore, Mayo has indicated that about three-fifths of all rural formal interaction occurred within the neighborhood residence of this elderly group.

Strieb's longitudinal study of the effects of aging on social participation cited by Reid (1966) analyzed both the informal and formal types of social interaction of 800 employed and 500 retired males 64 to 71 years of age. This research concluded that although there was no initial significant difference between employed and retired in terms of social participation, some decline was evident over the seven-year study period. The factors underlying the retired persons' lessened activity were not noted. In accordance with Mayo's findings (1951) on religious activity, Streib reported no decline for either group in church attendance over the period of the study. Riley (1968) has noted from her work that church attendance falls off only in advanced old age.

The factor of socioeconomic class was reported by Rose (1966) to be of importance in the consideration of aged social participation. In his study of 210 non-institutionalized persons 65 to 85 years of age, Rose noted class differences in participation. Lower class respondents were significantly below those of middle class in the

social areas of church attendance, voting, general activity in politics, club and organizational participation, social informal involvement with friends, and contact with relatives. Only 1.6 per cent of the lower class respondents as compared with 19.6 per cent of the middle class elderly saw relatives daily, and, correspondingly, 47 per cent of the lower as opposed to 39 per cent of the middle saw relatives more often before 50 years of age. The mentioned difficulties of inadequate medical care, income, and not knowing what to do with free time were noted to be highly correlated with the lower class status of elderly respondents.

Numerous research data have indicated that political interest and activity among the elderly sector of society is comparatively high and a very viable form of social behavior. In Kapnick's investigation (1968) of political behavior of the aged 62 years and older and of the non-aged at two state constitutional conventions, he noted the activity of respondents on the basis of others' perceptions of communicators, who had contacted them, and who respondents would go to for leadership. This study reported that the aged were equally represented, if not over-represented, in this form of political activity, not significantly less active, and more consistent in their political behavior. On a liberalism-conservatism scale, they were most like the "serious but flexible" 21 to 42 year age group. Kapnick further

observed that the aged ranked 70 per cent above the median leadership score. In subjective analysis, he concluded that the elderly participants were healthy, active, articulate, competitive, and influential.

Glen (1968) offered support for these findings in his research on voting, the age factor, and political interest, as he noted that 23.0 per cent of the young adults, 33.7 per cent of the middle-aged, and 32.2 per cent of the elderly group had a great interest in politics. When controls for sex and education were applied, this study indicated a positive, monotonic relationship existed between age and political interest, with the greatest interest being at 60 years of age and older.

Contemporary research has shown that familial interaction is not characterized by isolation and psychological distance of children and families from elderly parents and that contact and behavior are generally of a reciprocal nature. In Rosenmayer's study (1968) of family relations, the concept of "intimacy--but at a distance" was supported by most research. In citing Streib's investigation of self-evaluations of family cohesion, he reported that 74 per cent of the elderly parents and 60 per cent of the adult children felt they had a "close family group," and yet it was also indicated that of Streib's respondents, only 40 per cent of the parents and 24 per cent of the children desired more interaction. In reporting

further on Streib's study of 291 parents 67 to 69 years of age and their children, Reid (1966) indicated that although the low-income sector was under-represented, mutual support and interaction was evident. With one-half of the parents and children reporting that the parents took care of them while ill and only 40 per cent true of the reverse, his research concluded that help flowed somewhat more from parents to children.

The amount of contact of the elderly with family and relatives appears to be in part dependent upon the aged's living arrangements, contact with other neighborhood friends, and the marital status of the aged person. Riley's research study (1968), noted that one-half of the elderly have some contact with a relative daily and that four-fifths of the elderly having no relatives stop by on a regular basis were living in a household with either spouse, child, or others. She additionally noted that if the elderly knew other families in the neighborhood, owned their home rather than rented, headed their own households, and were married rather than single, they were more likely to have strengthened relational contact. Shanas (1968) has, correspondingly, reported that more older persons in Britain rather than the United States and Denmark have seen a child within the previous day, as more were widowed in Britain and living with a child.

The rural-urban residence factor has been shown also to be of importance in elderly familial interaction. In Bultena's

study (1969) of rural-urban differences in family involvement and contact of 507 respondents 64 years and older, it was indicated that the urban elderly maintained more contact with children than did the rural respondents. This study reported that 70 per cent of the urban as compared with 60 per cent of the rural parents had seen a child at least once during the week, and 83 per cent and 74 per cent, respectively, had seen a child at least on a monthly basis. Although the quality and motivations behind interaction between parents and children were not analyzed, Bultena concluded that:

The argument of a more pronounced disintegration of family relationships in large urban places may reflect conditions prevailing in the early decades of the 20th Century when migration to the city often brought a sharp disruption in extended family ties. However, the historical persistence of a substantial rural-to-urban migration appears to have given rise to a buildup of several generations of relatives in the city and to the establishment of viable extended-family relationships. The rural aged, on the other hand, find the opportunities for familial interaction greatly impaired by the migration of their children. This physical separation becomes particularly significant in view of the finding of previous research that interaction with friends diminishes progressively with advancing age (p. 14).

Attitudes, Values, Beliefs, and Life Choice

If we may assume that needs in part determine our values and beliefs in a therapeutically selfish manner, then what has research concluded about the needs of the elderly person? Previously noted findings have supported the idea of the aged being a special group

only by virtue of internalized cultural expectations and radical social losses in the form of valued roles and subsequent feelings of usefulness. In a study of the aged population, Field (1968) emphasized the universality of basic needs for all human beings:

When we talk about the aged, we tend to segregate them in our minds and think of them and their needs as being different from all others. And yet, as was pointed out, their basic needs are the needs that are common to us all. The older person needs to feel secure economically; to love and be loved like the rest of us, and thus be secure emotionally; to belong to and retain his role in, the society in which he lives; to be productive if possible, and to receive recognition for his accomplishments and his efforts; to have a voice and a choice in the way his life is lived, and to retain his feeling of dignity and self-respect till the inevitable end (p. 13).

That the elderly desire economic security is evident from the surprisingly high proportion of this group yet gainfully employed in an era of increasing involuntary retirement. Shanas (1968) has reported in her study of the aged in the United States, Britain, and Denmark that one-third of the respondents were still gainfully employed and that of the recently retired, 39 per cent in Britain, 33 per cent in the United States, and 14 per cent in Denmark indicated they would prefer to be working. Our culturally conditioned social, industrial, and economic factors appear to be further important, as this study has noted that one-fifth of those in Denmark compared with one-third of the aged respondents in Britain and the United States cited compulsory retirement as the reason for their stopping work.

Pension age and the quality of retirement benefits were indicated to be considerably higher in Denmark than in either Britain or the United States. Much as with our welfare scheme, this investigation noted it was not to the US respondents' advantage to work beyond the pension age of 65, because gainful employment only serves to reduce pension income.

According to Rosenblatt's study (1966) of the aged's interest in volunteer activities, in which 250 persons from 60 to 74 years of age were interviewed, potential volunteers were noted to be relatively scarce. Of the interested, tallying only one-fifth of the aged respondents, females in general, the age group of 60 to 64, those in good health, those measured to be "neighborly," and the aged with previous volunteer experience were among the interested respondents. Educational and marital status of the respondents was reported not to be significantly related to the outcome of this investigation.

Kaplan and associates noted in a study of self-attitude and aging (1970) that high self-derogation ratings were correlated with role deprivations, economic insecurity, and the fear of being left alone. From their sample of 500 Harris county, Texas, respondents from below 30 years of age to over 60 years, they reported that in a "stress-free" environment, aging tended to be associated with decreased self-derogation. With the life experience losses of divorce, death

of spouse, or loss of money, however, this research noted that self-devaluation increased to 64 per cent of the youngest and 25 per cent of the oldest groups. With disparities in current and hoped-for standards of living and fears of being left alone younger and older groups reported increased self derogation ratings of 56 per cent and 35 per cent and 55 per cent and 35 per cent ratings respectively. It appears that internalized expectations of the crises of aging may have something to do with the percentage differences between this study's older and younger groups.

The self-attitude of loneliness was shown to be significantly correlated with recent, acute role and resultant emotional deprivations suffered by respondents in Josephson's study (1962) of the aged. This study of 203 aged respondents concluded that a single social factor of deprivation of husband, wife, or child through illness, death, or migration was fundamental to the reported state of loneliness. He noted that of the 56 aged indicating that they were very lonely or sometimes lonely, 28 had been recently bereaved and 17 separated from children. In citing Sheldon's Woverhampton study of the aging correlates of loneliness, Josephson reported that such persons were widowed and single, lived alone, were in their eighties rather than sixties, were men rather than women, and were comparatively infirm. These "desolates" rather than social "isolates" were noted to suffer

acute loneliness, with mortality rates far higher for the widowed than any other group. In summary, it appears from this work that social and family circumstances were directly responsible for self-adjustment patterns, loneliness or affection of the aged population.

The correlates and variables of changes in self-reported usefulness, loneliness, and life satisfaction were not indicated in Shanas' study (1970) of life space and aging in the United States and Poland. She has noted, however, that in a sample of 2,500 non-institutionalized respondents 65 years and older, the older the person, the more he reported loneliness, uselessness, and time passing very slowly. Even though two-thirds of the men and one-half of the aged women indicated usefulness, the percentage of uselessness was noted to double for these groups between the 65 to 69 and 80 to 84 age brackets. Whether economic and social losses were important to the rising rates of loneliness and uselessness was not indicated, but it appears that a certain degree of affectional loss has occurred with this group of respondents.

Few life choice studies of the aged are available in contemporary research, but Ellis (1969) has completed research on subjective, attitudinal "will to live" of aged persons and some factors of life choice. In his investigation of the homogenous group of 108 retired steel workers, he hypothesized that social changes brought psychological changes, low will to live, which resulted in somatic changes or

physical health loss. The two elements of importance studied were "social isolation," the loss of friends and contacts, and "loss of function," the net loss of meaningful roles. A "will to live" scale was designed to discriminate between those aged desiring to live from those not desiring to live on seven items. Using a chi square analysis with Yates' Correction, Ellison reported that only 22 per cent of the respondents having a high degree of social isolation had a high will to live; whereas, he noted that 48 per cent with high social isolation had a low will to live rating. None of the respondents with low loss of function had a low will to live, but on the other hand, 35 per cent with reported high loss of function were characterized by a low will to live. Health was seen to be correspondingly correlated, with 56 per cent of the respondents in good health having a high will to live but only five per cent in poor health having this high will to live. As this study has indicated, the causality flow could occur in any direction, but the intimate balance of a change in one area producing a change in another appears to be substantiated by this recent research.

The general dearth of research on aspects of life choice for the aged seems to necessitate in itself further in-depth study in this area. Moreover, such research would serve to either offer or refuse support to the ever-popular theories of disengagement.

CHAPTER III

METHODOLOGY

To more fully understand the present needs and life choice alternatives of Montana's rural elderly population, a questionnaire study of one selected community was conducted. Grant funding from the Montana State Commission on Aging enabled the research team to begin investigation in the small town of Roundup, Montana, as early as July, 1972.

The Roundup area was selected as the site for investigation for several important reasons. The Montana State Commission on Aging originally stipulated that the study be conducted in one of five eastern districts in Montana. These districts were Petroleum, Golden Valley, Judith Basin, Wheatland, and Musselshell Counties. Due to the lower cost of sampling in an area where the population is concentrated, Musselshell County was arbitrarily selected. In Musselshell County, itself, Roundup was the only small town with a population of elderly of sufficient number for sampling.

As the purpose of this study was the discovery of the most basic and urgent needs and problems of rural elderly, Roundup seemed to be the logical site of study. With a population of less than 2,500, this town can be considered rural by traditional definition. As the following descriptive sketch of the Roundup area will illustrate, Roundup is representative of a small, dying community. It was

felt that in such an area the most pressing needs of the elderly could be uncovered.

Description of Community

Since the early cattle days in 1882 when James McMillan suggested Roundup be placed on the map for public recognition, this small community on the north edge of the Bull Mountains has undergone several shaking metamorphoses. With the advent of the Milwaukee Railroad line to Harlowtown in 1908, the mining of rich coal deposits in the Bull Mountain area took precedence over cattle raising and sporadic farming. During the time of operation of four major mines, Roundup swelled to a booming community of over 5,000 people. Industry and prosperity flourished in each of the four coal camps on the outskirts of each mine. Later in 1911, Roundup was named the county seat of Musselshell (Funk, 1965). Following the 1920's, however, severe drought conditions and the impact of the Depression hit the area hard. Crops were poor. The land became virtually worthless. Businesses declined, and banks closed down. Finally, the last of the large mines ceased operation in 1963 (Stearns, 1966; Funk, 1965). Trains soon became a memory, as the Milwaukee then suspended all passenger service. Devastation was so total to the area that Musselshell County was officially declared a disaster area during the years 1960, 1961 and 1962. Population has

been dropping steadily since closure of the last mine. According to the Bureau of Census (1970), the city of Roundup, Montana showed a -25.5 per cent change from a population of 2,842 in 1960 to 2,116 in 1970.

Economic development and trends in Roundup have left the two faces of this now defunct mining and railroad community highly visible. The clean and orderly inner city of Roundup located approximately halfway between Billings and Lewistown, Montana has been the site of Federal project funding for dying rural communities. New employment positions now exist for residents in the mushroom studies around the old mining areas, the consolidation and development of two libraries, sewage and water improvement, the art bronze foundry, sawmill operations, a meat processing plant, garage mechanics, and assorted small businesses (Great Falls Tribune, 1971). Joe W. Holland of the Musselshell Valley Commercial Club noted the growth of 19 new businesses in Roundup during the past 15 years. He further reported to the Great Falls Tribune the improvements of city streets, city wide garbage service, 24-hour police protection, an abundant supply of water, and a new junior high and high school (1961). Inner Roundup yet lacks city transportation service. Being relatively small, however, the town's facilities are highly accessible to residents.

In sharp contrast the residual inhabitants of the four coal camps one to seven miles outside inner Roundup have experienced no

such development of their residences. The population of past miners and miners' widows has markedly declined over the years with general movement of persons to the inner city of Roundup. Continuing out-migration may be appreciated in view of the fact that these camps have neither sewage systems nor indoor plumbing available to them within the camps (Tureck and Sullivan, unpublished). Getting to the closest and only trading center remains problematic for these residents, as to date no means of transportation exists between the camps and Roundup. Tureck has further noted in his comparative analysis of the two Roundups that the mutual problem of inadequate and substandard housing was particularly keen for camp residents. From his data it appears that by far the most dilapidated houses or "shacks" were occupied.

An overview of the county population breakdown by age and sex may be seen in the following chart on page 52.

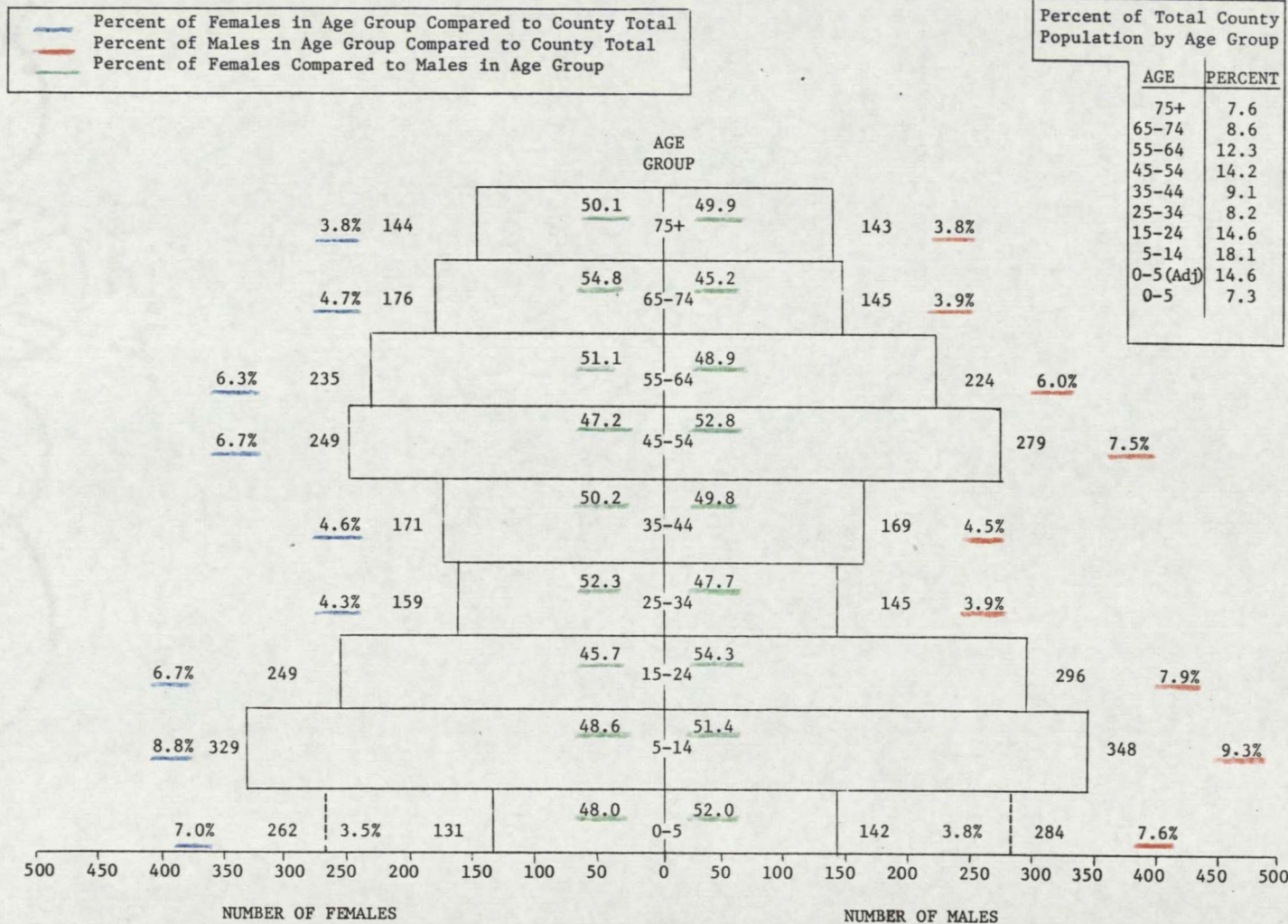
Selection of Sample

By means of random proportionate sampling, 93 non-institutionalized persons aged 65 years and older in Roundup were selected for interviewing. Using 1970 census data, the population area of the community was sub-divided into Enumeration Districts, the smallest units of census tract data. Aged percentage totals for the Districts by household were calculated to be 21 in E.D. 4, 19 in E. D. 5,

Figure 1. Population by Age and Sex

MUSSELSHELL COUNTY TOTALS

TOTAL POP. 3,734

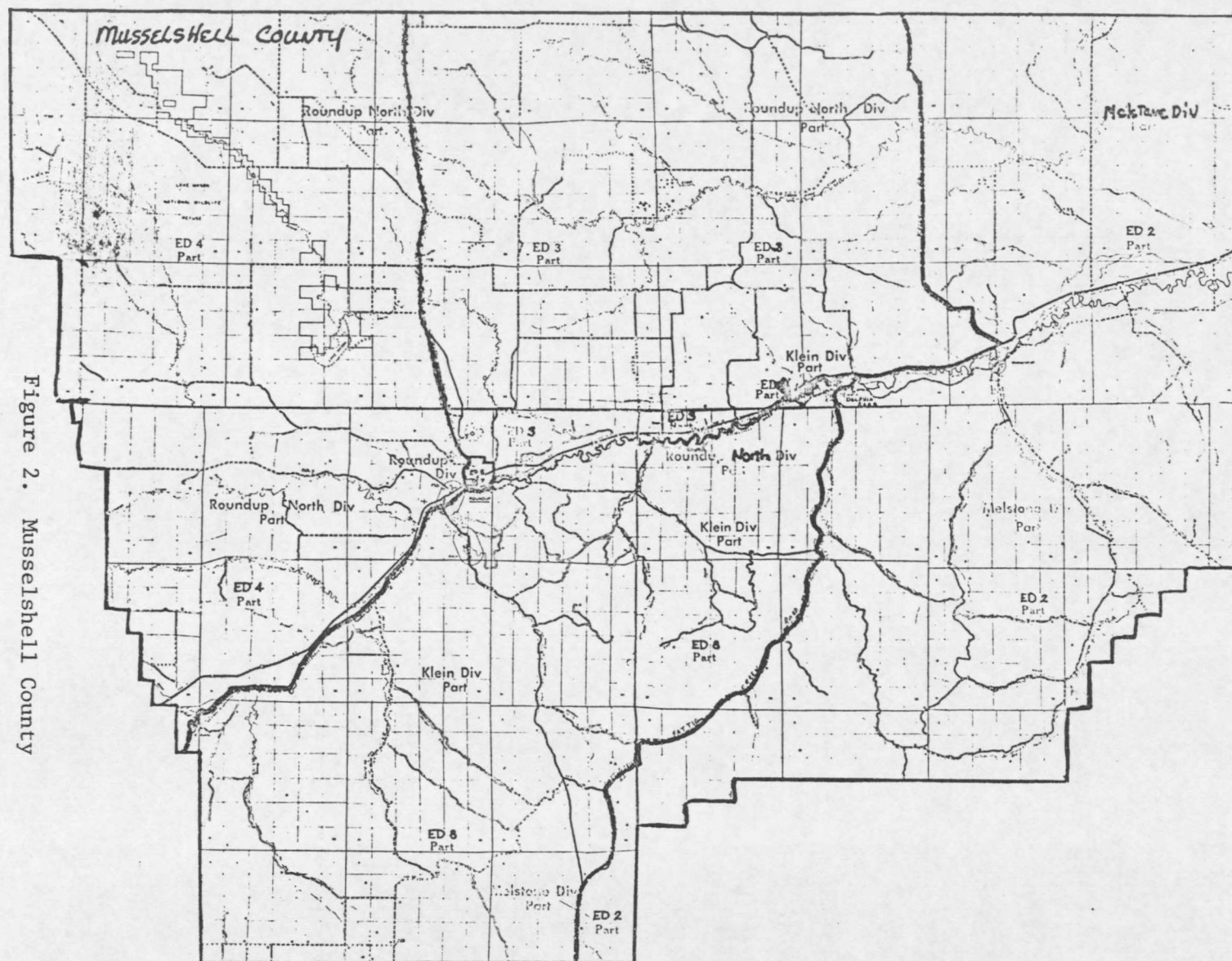


24 in E. D. 6, and 24 in E. D. 7. and proportionate numbers of aged from each District were selected for contact. Assuming the aged population was evenly distributed over each District, the selected E. D.'s were further sub-divided into numbered blocks. Interviewing blocks were then chosen from a table of random numbers. (The use of Enumeration Districts may be further illustrated in Figure 2).

Although the marital status variable resolves itself without further control by the experimenter, controls were used for sex and income levels of the aged population. In actual door-to-door interviewing, the male was always asked for. Of the ninety-three elderly initially contacted, five may be considered refusals. Two of these refusals, however, were based on medical reasons.

Instrument

The Social Indicators Study was the comprehensive questionnaire instrument utilized in this investigation. Although only certain aspects of this questionnaire were analyzed in this study, the relationship of a part to a larger whole may be seen by the inclusion of most of the survey in the Appendix. Nurses, nutrition specialists, and sociological consultants on the Montana State University campus offered their assistance in composing questions relevant to their respective fields of study. Beyond basic demographic variables, questions were selected to reveal information on the aged's housing,



transportation, nutrition, health status, attitude regarding aging, feeling of responsibility, control over life space, and happiness, formal social participation, and general dependence upon others for mobility. The questionnaire study was pre-tested on a randomly selected group of 30 aged in Bozeman early July, 1972.

Experienced student interviewers who were thoroughly acquainted with the contents of this survey administered the questionnaire to the two community samples. Prefacing the actual door-to-door administration of the instrument, this group contacted local agency officials and newspapers and explained the purpose, genesis, and funding behind the Social Indicators Study. To assure that all attitudes and beliefs were represented by the survey, interviewers impressed each contact with the importance of his or her participation in the study. Although interviewers read and marked the lengthy questionnaire for respondents, the "don't know," "no response," and "not applicable" categories were available responses to most questions. These mentioned categories were freely used when replies were not forthcoming. Open-ended questions and those requiring further explanation were marked with the initial full response and later coded by categories. Except in instances where respondents were hard of hearing, inattentive, etc., interviewers noted that minimal repetition or explanation of the 397 questions was necessary.

Coding of Instrument

Responses from questionnaires were categorized and classified by means of an intricate code book devised for this purpose. Due to its voluminous nature, however, the coding system will be explained and referred to when applicable but has not been included in the Appendix. All possible responses were awarded some numerical figure in the constant process of editing and re-editing the constructed code. Following transfer of the code numbers to each completed questionnaire, selected individuals checked the coding transfer for accuracy. A final cross-check of the coded data was provided when coded responses were transferred to fortran code sheets for computer processing at the Montana State University Computing Center.

Analysis of Data

Data was examined with the use of the chi square test of independence. This test indicates whether a relationship exists between the variables being considered. Relationships exist if the distribution of scores deviates from the calculated model of expected distribution. The .05 level of significance was chosen as the criterion for acceptance or rejection of the hypothesized relationship.

CHAPTER IV

RESULTS AND DISCUSSION

Description of Subjects

Introducing the sample studied, Table 1 provides descriptive information, derived from a summary statistics program of the completed questionnaires. Of the elderly participating in this study, well over half were female, 75 years old and younger, and single. Indicative of the elderly population, females outnumbered the males in this sample of 88 from Roundup, Montana, by (51%) to (37%). Well over half of the aged (59.0%) were noted to be of the less advanced age group, which seems to support previously documented findings. Only 36 (41.0%) of the 88 respondents reported their ages to be 76 years and older. With advancing age, the proportion of married to single persons differs radically from the larger population. Forty (45.0%) of this sample were noted to be married, while a slightly larger number of 47 to 54.0 per cent indicated that they were single. Within this group of single persons, the status appears not to be one of choice. Thirty-nine (45.0%) of the entire sample studies were widows or widowers.

With regard to formal education, the largest proportion of aged had attained the lowest level of academic achievement. Only 35 (40.0%) of the sample reported having nine or more years of

TABLE 1

DESCRIPTION OF SUBJECTS
 (Total Rural N = 88)
 (Percentages shown as per cent of total sample)

Variable	Classification	No.	%
Sex	Male	37	42.0
	Female	51	58.0
Age	75 and younger	52	59.0
	76 and older	36	41.0
Marital Status	Married	40	45.0
	Single	47	54.0
	Widowed	39	45.0
	Divorced	2	2.0
	Single	4	5.0
	Separated	2	2.0
Education	8 or fewer years of formal education	52	59.0
	9 or more years of formal education	35	40.0
Physical Restriction	Maintenance home--easy	48	55.0
	--difficult	34	39.0
	Own car or truck--yes	56	64.0
	--no	32	36.0
	Family in area --yes	53	60.0
	--no	35	40.0
	Rely on family for help		
	frequently--occasion	33	39.0
	rarely--never	51	57.0
	Mechanical condition of car		
	--good	45	51.0
	--poor	11	13.0

TABLE 1 (continued)

Variable	Classification	No.	%
Mobility	Able to travel locally		
	often-sometimes	65	74.0
	rarely-never	22	25.0
	Able to travel out of area		
	often-sometimes	61	69.0
	rarely-never	26	30.0
	Number of days travel a year		
	2 weeks or less		
	--males	9	10.0
Formal Social Involvement	--females	7	7.0
	3 weeks or more		
	--males	3	3.0
Formal Social Involvement	--females	8	9.0
Formal Social Involvement	Vote in last city election		
	--yes	54	61.0
	--no	18	20.0
Formal Social Involvement	Clubs and organizations		
	belong to --0 to 1	46	52.0
	--2 or more	42	48.0
	Attend club no. 1		
	always-most of time	29	33.0
	sometimes-never	17	20.0
	Attend church		
	always-most of time	16	18.0
Physical Health	sometimes-never	12	14.0
Physical Health	Days of activity restriction last year--never	41	47.0
	one month or less	26	30.0
	more than one month	21	24.0
Income Level	Less than \$3000 per year	44	50.0
	\$3000 to less than \$6000	26	30.0
	\$6000 and over	14	16.0

TABLE 1 (continued)

Variable	Classification	No.	%
Comparative Biographical Assessment	Responsibilities as great		
	as 30 years ago	41	47.0
	less than 30 years ago	46	52.0
	Influence relative to 20		
	years ago--more	12	14.0
	same	43	49.0
	less	33	37.0
Present Employment Status	Working	11	12.0
	Non-working	77	88.0

formal education. The sizable majority of 52 (59.0%) had received eight or fewer years of schooling. Due to the small percentage of respondents at the highest level of education, more specific categories were not analyzed.

It appears from the table that respondents indicated physical restrictions in some areas but not in others. Maintenance of home appears to have been a restricting factor for a sizable number of these rural elderly. Forty-eight persons or 55.0 per cent found maintenance of their homes easy; whereas, 34 of the respondents (39.0%) reported difficulty in this area. Compared with the larger population, a considerable proportion (36.0%) of the sample did not own a car or truck. Of those who reported owning a vehicle, however, 51.0 per cent felt that their cars were in good operating condition. The majority of respondents (60.0%) were not restricted by the inavailability of family and relatives. Only 35 (40.0%) of the sample indicated that they had no relatives in the area. Of the respondents having family nearby, a notable group of 33 respondents or 39.0 per cent mentioned that they relied often on relatives to take them places. Including respondents with no family in the area, 51 (57.0%) rarely or never relied on family for help.

It is apparent from this table that the overwhelming proportion of elderly are mobile on a local basis. Only 22 aged in this sample or 25.0 per cent were unable to travel at will locally. Comparatively,

65 (74.0%) traveled in the area often to sometimes. Fewer respondents, 61 (69.0%), were able to travel out of the area as often as they desired. Twenty-six (30.0%) reported that they rarely or never left the area. With regard to the number of days respondents spent traveling in the last year, a very small percentage noted that they traveled at all. Of the 29.0 per cent of the sample indicating this form of mobility, nine males and seven females were mobile two weeks or less. Eight females, as compared with three males, spent three weeks or more during the last year traveling.

Senior citizens appear to have a high degree of formal social involvement in some areas but not in others. Of the 81.0 per cent of the elderly who were registered voters, 54 (61.0%) voted in the last city election. A small group of 18 (20.0%) reported that they had not voted. Well over half or 52.0 per cent of this elderly sample were not highly involved in clubs, belonging to only one or none. Forty-eight per cent or 42 of the respondents indicated that they had memberships in two or more clubs and organizations. As few as 29 (33.0%) attended the first-mentioned club always or most of the time. Twenty per cent of the elderly with memberships indicated that they only sometimes or never attend. Church membership was responded to favorably by only 32.0 per cent of the total sample. Eighteen per cent of the sample frequented the church regularly. A corresponding number of 12 (14.0%) attended on a sometimes to never basis.

Nearly one-half of the elderly interviewed (47.0%) noted that they had no activity restriction during the past year. Another 26 (30.0%) reported that their activities had been curtailed only one month or less. Twenty-one (24.0%) of the total sample were restricted by poor health for more than one month.

Exactly half of the sample had an income level in the last year of less than \$3000 before taxes. In the income bracket of \$3000 to less than \$6000, the number of elderly belonging to this group decreases to 26 (30.0%). It is readily apparent from the table of descriptions that only 14 (16.0%) of the respondents were at the highest level of income of \$6000 or more per year. From this data, it seems obvious that the factor of income is problematic for the rural elderly studied.

Few of the respondents could be considered to have a comparatively favorable biographical assessment. Half of the rural aged or 52.0 per cent of the sample replying felt that their responsibilities were less than 30 years ago. Only 41 respondents or 47.0 per cent indicated their responsibilities to be comparatively as great. Nearly one-half (49.0%) of the sample felt they had as much influence in matters as they did 20 years ago, and 37.0 per cent of the elderly studied indicated that they had less. Of the total sample, only 12 of the rural aged or 14.0 per cent felt they had more influence than ever.

Elderly in this study were predominantly of the non-working employment status, which included, perhaps erroneously, the category

of housewife. The sizable number of 77 respondents or 88.0 per cent reported being retired, housewives, or otherwise not working. Only 11 elderly of this sample or 12.0 per cent noted that they were presently working.

Hypotheses Analysis and Discussion of Results

Examined in the study were four hypotheses. Using the chi square test of independence, each of the listed variables was scrutinized for hypothesized relationships. As several of the variables were indicated by more than one question from the Social Indicators Study, chi square distributions of all of the selected questions have been clustered together under the major variable title. In each of the distributions, questions were abbreviated by numbers which correspond to question numbers in the Social Indicators Study presented in the Appendix.

The .05 level of significance was selected as the criterion for acceptance or rejection of the formulated hypotheses. Only the significant relationships were examined in depth in this study. If a relationship meets this level, the probability exists that the difference could have occurred by chance alone in only five out of 100 cases. With the more stringent .01 level of significance, the probability of chance results decreases to one in every 100 instances.

In reaching a decision about the hypotheses, however, two types of error can occur. The Type I error, the probability of which is the level of significance, arises when no relationship exists, but due to error the researcher believes one does. The probability of making a Type II error, deciding that no relationship exists when one does, is increased when the level of significance is set too low and when the sample size is small. Given a small sample and the .01 level of significance, for instance, the investigator may fail to recognize the differences that do exist. The results of this investigation must be qualified in terms of these possibilities of error. A relationship may exist, but due to the chosen level of significance and the small sample size, it may not be readily apparent.

Hypothesis 1. Rural elderly having a high degree of physical restriction will:

- a) have a low degree of formal social involvement
- b) be more predominantly male than female
- c) have a low degree of physical health
- d) be more advanced in age
- e) have a lower level of income
- f) have a lower comparative biographical assessment
- g) be more predominantly single than married
- h) have completed fewer years of formal education

i) be more predominantly working than non-working

j) have a low degree of mobility

Chi square test results for Hypothesis 1 (a) are noted below in Table 2.

TABLE 2

THE EFFECT OF PHYSICAL RESTRICTION
ON FORMAL SOCIAL INVOLVEMENT

Formal Social Involvement	N	chi square	df	Significance
<u>Physical Restrictions (Home Maintenance)</u>				
Vote	66	.00	1	n.s.
Membership in organizations	82	1.36	1	n.s.
Attend club	44	.04	1	n.s.
Attend church	26	.38	1	n.s.
<u>Physical Restriction (Car Ownership)</u>				
Vote	72	.04	1	n.s.
Membership in organization	88	2.14	1	n.s.
Attend club	56	3.32	1	n.s.
Attend church	28	.15	1	n.s.
<u>Physical Restriction (Mechanical Condition Vehicle)</u>				
Vote	45	1.04	1	n.s.
Membership in organization	56	1.47	1	n.s.
Attend club	44	2.71	1	n.s.
Attend church	13	2.60	1	n.s.
<u>Physical Restriction (Dependency on Others)</u>				
Vote	68	5.37	1	.05
Membership in organizations	84	1.45	1	n.s.
Attend club	43	.00	1	n.s.
Attend church	28	1.34	1	n.s.

It may be observed from Table 2 that no significant relationships exist between physical restriction question number 14: Is the maintenance of your home easy to keep up with? and all four formal social involment questions. When asked in question number 197 whether they had voted in the last city selection, respondents with difficult homes to maintain were as likely to have voted as respondents with no physical restriction in this area. Question number 288 asked the elderly the number of clubs and organizations to which they presently belonged. From the data, it appears that home maintenance difficulties did not influence the organizational membership aspect of formal social involvement. Those elderly reporting home maintenance restrictions were as likely to belong to two or more clubs and organizations as respondents indicating that their homes were easy to keep up with. Question 288 (b) inquired into the regularity with which respondents attended the first mentioned club. The considerable drop to 44 respondents answering this question seems to indicate an overall lack of club membership and participation by this sample. Once again, home maintenance may be seen to exercise little influence over club attendance. Question 288 (c) was an inquiry about church attendance. Like the second sub-section, respondents indicated that they either attended church often to frequently or rarely to never. Only the marked drop to an N=26 is interesting in this distribution. The elderly in this sample appear not to display

religiosity in the traditional sense of church membership and participation.

Physical restriction question number 28 dealt with whether or not participants owned a car or truck. It may be readily observed from the table that this aspect of restriction, likewise, was not related to the mentioned questions of voting in the last city election, number of clubs respondents belonged to at present, club attendance, and church attendance. The only form of formal social involvement that was influenced to any degree by ownership of a vehicle was the regularity with which respondents attended clubs. Although the difference is not significant, club attendance is partially influenced by having a car or truck.

It appears from Table 2 that question 29 which asked whether respondents' vehicles were in good or poor mechanical condition had no bearing on their level of formal social involvement. Elderly having vehicles in poor operating condition voted, belonged to clubs, attended clubs, and frequented their churches similarly to respondents with vehicles in good repair. The formal social involvement questions, numbers 197 and the three sections of 288, were not influenced by the operating condition of vehicle aspect of physical restriction.

When asked to indicate in question 49 how often they relied on family and friends to take them places, as a selected form of physical restriction, the elderly participants revealed one

interesting relationship. Voting patterns were found to be significantly related to the restriction of relying on family and friends for help. Those elderly relying often to frequently on relatives were much less likely to vote than those who rarely or never had to depend on others. As the other indicators of formal social involvement of club membership, club attendance, and church attendance were not significantly related to reliance on others, dependency and voting deserves further merit.

Noted earlier, the number of elderly in this sample belonging to and attending clubs and churches has been low compared with their participation at the polls. Neither reliance nor any other form of physical restriction has been shown to influence the low degree to which they participate in club and church activities. The extreme degree of physical restriction or outright dependency on others does appear to affect the elderly's most crucial level of formal social participation. In summary, only the dependency aspect of physical restriction can be said to influence only the voting aspect of formal social involvement.

Test results of Hypothesis 1 (b) are shown in Table 3.

TABLE 3

THE RELATIONSHIP BETWEEN PHYSICAL RESTRICTION
AND SEX OF RESPONDENTS

Sex	N	chi square	df	Significance
	<u>Physical Restriction (Home Maintenance)</u>			
Male-Female	82	.25	1	n.s.
	<u>Physical Restriction (Car Ownership)</u>			
Male-Female	88	5.98	1	.05
	<u>Physical Restriction (Mechanical Condition Vehicle)</u>			
Male-Female	56	4.83	1	.05
	<u>Physical Restriction (Dependency on Others)</u>			
Male-Female	84	5.21	1	.05

It may be observed from Table 3 that three of the four distributions show physical restriction to be significantly related to sex of the respondents. Physical restriction is not influenced by sex of the aged person only in the instance of home maintenance (Q. 14). Considering the large proportion of widows in this sample, the similar responses to the question are somewhat surprising. Females are seen to be restricted in their response of not owning vehicles. From the total sample of 88, females were significantly more likely not to own a car or truck than were the elderly males. When asked to rate the mechanical condition of their vehicles (Q. 29), however, males significantly reported more physical restriction. Indicated in the

table, the physical restriction of dependency on family and friends, (Q. 49), is significantly related to sex of respondents. It may be readily observed that females were restricted by having to rely on relatives to a greater degree than males. The possible interrelationship of the females not owning a vehicle and dependence on relatives could be posed at this point.

In summarizing the proposed hypothesis 1 (b) of males having a higher degree of physical restriction, only question number 29 lends support. In the instances of car ownership and dependency on others, this statement is not only held untenable but significantly applicable to the female sex.

Table 4 below reveals the chi square test results of Hypothesis 1 (c).

TABLE 4
THE EFFECT OF PHYSICAL HEALTH
ON PHYSICAL RESTRICTION

Physical Health	N	chi square	df	Significance
<u>Physical Restriction (Home Maintenance)</u>				
Activity Restriction	82	3.62	2	n.s.
<u>Physical Restriction (Car Ownership)</u>				
Activity Restriction	88	.16	2	n.s.
<u>Physical Restriction (Mechanical Condition Vehicle)</u>				
Activity Restriction	56	3.61	2	n.s.
<u>Physical Restriction (Dependency on Others)</u>				
Activity Restriction	84	6.48	2	.05

In only one instance is physical health of the respondents significantly related to physical restriction. Elderly having a low degree of physical health may be observed to have a corresponding high degree of dependency on relatives (Q. 49). For this question distribution in Table 4, the hypothesis is significant well beyond the .05 level. The fact that there appears to be no significant relationship between health and home maintenance, car ownership, and the mechanical condition of owned vehicles seems to say something about physical restriction of the elderly. Senior citizens in poor health can maintain their homes, own cars, and report no greater difficulties with these cars, but at perhaps a more important level, are greatly dependent on others for help. It appears to be of little value to own a car in good repair if the person is unable to freely and independently use it.

The following are the chi square results of Hypothesis 1 (d).

TABLE 5

THE RELATIONSHIP BETWEEN PHYSICAL RESTRICTION
AND AGE OF RESPONDENTS

Age	N	chi square	df	Significance
<u>Physical Restriction (Home Maintenance)</u>				
Under 75 - Over 75	82	1.98	1	n.s.
<u>Physical Restriction (Car Ownership)</u>				
Under 75 - Over 75	56	.59	1	n.s.
<u>Physical Restriction (Mechanical Condition Vehicle)</u>				
Under 75 - Over 75	88	.33	1	n.s.
<u>Physical Restriction (Dependency on Others)</u>				
Under 75 - Over 75	84	.04	1	.05

Contrary to most contemporary data on aging, the results above indicate that physical restriction does not increase with advanced age of the elderly person. As the original eight age categories were unmanageable for calculations, the two categories of 75 years or younger and 76 years or older were selected for computation. Prior documents led the researcher to believe that age becomes a critical factor after one reaches the age of 75 plus. It may be readily observed from Table 5 that this is not the case.

The first distribution reveals that there is no significant relationship between age level, and the ease or difficulty of maintaining one's home. Elderly of advanced age appear not to be more restricted by poorly functioning vehicles, than their younger counterparts. Likewise, the advanced age elderly seem to be just as inclined to have

family living in the area, as those respondents younger than 75 years of age. The fact that these older aged persons have access to relatives but do not depend on them for help to any greater extent, seems to clearly negate Hypothesis 1 (d). In earlier test results, dependency has been the most crucial indicator of physical restriction. In the cross tabulation with age, however, the chi square is the lowest of the four distributions.

Table 6 below indicates the chi square test results of Hypothesis 1 (e).

TABLE 6
THE EFFECT OF INCOME LEVEL ON
PHYSICAL RESTRICTION

Income	N	chi square	df	Significance
<u>Physical Restriction (Home Maintenance)</u>				
Below \$3,000 - Below \$6,000 - \$6,000+	79	3.05	2	n.s.
<u>Physical Restriction (Car Ownership)</u>				
Below \$3,000 - Below \$6,000 - \$6,000+	84	11.01	2	.01
<u>Physical Restriction (Mechanical Condition Vehicle)</u>				
Below \$3,000 - Below \$6,000 - \$6,000+	53	6.25	2	.05
<u>Physical Restriction (Dependency on Others)</u>				
Below \$3,000 - Below \$6,000 - \$6,000+	74	9.43	2	.01

Only in one instance in the above is income not significantly related to physical restriction of the elderly sample. Even in the case of home maintenance, income is influential in nine out of ten

instances. In the remainder of the distributions, income may be seen to have a most decided effect on physical restriction, especially at the \$6000 or more level of total family income.

In the cross tabulation of question 352 of income level and car ownership, it may be seen that low income elderly of less than \$3000 are particularly physically restricted. This relationship is significant at even the .01 level. Only one of the 14 elderly having incomes of \$6000 or more per year did not own their own forms of transportation. A similar statement can be made regarding high income elderly and the mechanical condition of their car. Income is significantly related to the physical restriction of having vehicles in poor operating condition. The final distribution shows the significant relationship between income and the necessity of depending on relatives for help. Not one of the high income elderly was restricted by having to rely often to frequently on others to take them places. In contrast, the lower level income brackets relied and did not rely almost equally on others for help. In light of these distribution results, it seems that Hypothesis 1 (e) is definitely supported.

The following Table 7 indicates the chi square test results for Hypothesis 1 (f):

TABLE 7

THE RELATIONSHIP BETWEEN PHYSICAL RESTRICTION AND
COMPARATIVE BIOGRAPHICAL ASSESSMENT

Comparative Biographical Assessment	N	chi square	df	Significance
<u>Physical Restrictions (Home Maintenance)</u>				
Responsible	81	.18	1	n.s.
Influential	82	.72	2	n.s.
<u>Physical Restriction (Car Ownership)</u>				
Responsible	87	.00	1	n.s.
Influential	88	3.18	2	n.s.
<u>Physical Restriction (Mechanical Condition Vehicle)</u>				
Responsible	55	3.27	1	n.s.
Influential	56	.75	2	n.s.
<u>Physical Restriction (Dependency on Others)</u>				
Responsible	83	4.70	1	.05
Influential	84	2.01	2	n.s.

As it may be seen from Table 7, comparative biographical assessment has been indicated by two questions. Question 384 asked respondents if they felt their responsibilities were as strong as they were 30 years ago. The second question, 386, appears to have a wider possible range of interpretations. When asked whether they felt they had more, the same, or less power now compared to 20 years ago, respondents as well as readers could define the term in a variety of ways. Arbitrarily, the word power has been defined as meaning influence and control over the life processes. To determine whether influence, control, and feeling responsible were related to levels of physical restriction, these two questions have been cross tabulated with the four physical restriction questions. From the data in the table, it appears that

only one aspect of comparative biographical assessment is significantly related to one aspect of physical restriction.

A significant relationship was found between reliance on others for help, and feeling as responsible as 30 years ago. Those elderly having to rely heavily on others do not display a favorable biographical assessment with regard to feeling responsible. Interestingly enough, this same physical restriction of dependency does not significantly affect this elderly sample's feelings of power, (Q. 386). One could argue at this point that this particular sample has defined power from a purely economic standpoint. As such, the physical restriction of dependency would have little influence on feelings of economic power. Question numbers 14, 28, and 29 dealing with home maintenance, car ownership, and mechanical condition of vehicle are not significantly related to either aspect of comparative biographical assessment. Physical restrictions in these areas do not seem to produce or be related to an unfavorable assessment of self now as compared to self in the past.

It seems possible that having a difficult home to keep up, not owning a car, and having a car in poor repair might be considered common problems or factors beyond one's control. Having to depend upon others for help, however, could be seen as a reflection on self. This reflection might easily be negative for the elderly brought up under the influence of rugged individualism and self-responsibility.

Chi square results for Hypothesis 1 (g) are indicated below in Table 8.

TABLE 8
THE EFFECT OF MARITAL STATUS ON
PHYSICAL RESTRICTION

Marital Status	N	chi square	df	Significance
<u>Physical Restriction (Home Maintenance)</u>				
married-single	81	.19	1	n.s.
<u>Physical Restriction (Car Ownership)</u>				
married-single	83	22.4	1	.01
<u>Physical Restriction (Mechanical Condition Vehicle)</u>				
married-single	56	.80	1	n.s.
<u>Physical Restriction (Dependency on others)</u>				
married-single	83	1.84	1	n.s.

For the purposes of this study, question two identifies respondents on the basis of two marital status categories only, of married or single. Distributions above indicate that only one form of physical restriction is related significantly to the single marital status. Single elderly respondents appear to be decidedly more restricted by owning fewer cars, than their married counterparts. It is of interest to note, however, that in reference to the cross tabulation with question number 49, these single elderly with considerably fewer vehicles are not significantly more dependent on relatives. This seems to indicate a certain independence in spite of initial restriction of the single elderly sample. Home maintenance and mechanical condition

of vehicle likewise do not appear to be more restrictive for either marital status category. In summary, being single or married is observed to only significantly affect ownership of a car.

Table 9 offers the test results for Hypothesis 1 (h).

TABLE 9
THE RELATIONSHIP BETWEEN PHYSICAL RESTRICTIONS
AND EDUCATION

Education	N	chi square	df	Significance
<u>Physical Restriction (Home Maintenance)</u>				
To eight years - above	82	1.76	1	n.s.
<u>Physical Restriction (Car Ownership)</u>				
To eight years - above	88	7.55	1	.01
<u>Physical Restriction (Mechanical Condition Vehicle)</u>				
To eight years - above	55	8.22	1	.01
<u>Physical Restriction (Dependency on others)</u>				
To eight years - above	84	6.78	1	.01

From the above tabular data, it is apparent that those of the zero to eight years education bracket have a higher degree of physical restriction. Only the cross tabulation of education with home maintenance, fails to produce significant relationship. The lower degree of formal education appears to significantly influence all of the remaining aspects of physical restriction. Elderly having the lower level of education own fewer cars, have cars in poorer operating condition, and depend more heavily on family and friends to take them places. That education is observed to be more important to physical

restriction than age level of the elderly sample is a contradiction to most current data on aging.

The chi square test results for Hypothesis 1 (i) are indicated in Table 10 below.

TABLE 10
THE EFFECT OF PRESENT EMPLOYMENT STATUS ON
PHYSICAL RESTRICTION

Present Employment Status	N	chi square	df	Significance
<u>Physical Restriction (Home Maintenance)</u>				
working-nonworking	81	.00	1	n.s.
<u>Physical Restriction (Car Ownership)</u>				
working-nonworking	88	4.04	1	.05
<u>Physical Restriction (Mechanical Condition Vehicle)</u>				
working-nonworking	56	1.82	1	n.s.
<u>Physical Restriction (Dependency on Others)</u>				
working-nonworking	84	3.28	1	n.s.

Whether respondents were of the working or non-working employment status is shown in Table 10 to be important to only one aspect of physical restriction. Non-working elderly are significantly restricted in their low ownership of vehicles. The non-working status appears to be somewhat related to the restriction of depending on others for help, but not significantly so. Cross tabulations of employment status with question 14 and 29 show that the non-working elderly are no more likely to have difficulty maintaining their homes or have vehicles in poor operating condition. Reduced income or necessity may be

factors in the non-working group's not owning vehicles comparable to the working group. Restriction in this area, however, appears not to be important to other possible areas of restriction such as dependence on others.

Table 11 below reveals the chi square test results for Hypothesis 1 (j), the final division of Hypothesis 1.

TABLE 11
THE RELATIONSHIP BETWEEN PHYSICAL RESTRICTION
AND MOBILITY

Mobility	N	chi square	df	Significance
<u>Physical Restriction (Home Maintenance)</u>				
Local travel	81	5.14	1	.05
Travel outside area	81	3.46	1	n.s.
Vacation	26	.49	1	n.s.
<u>Physical Restriction (Car Ownership)</u>				
Local travel	87	16.32	1	.01
Travel outside area	87	20.82	1	.01
Vacation	29	2.02	1	n.s.
<u>Physical Restriction (Mechanical Condition Vehicle)</u>				
Local travel	55	3.75	1	n.s.
Travel outside area	55	2.63	1	n.s.
Vacation	21	2.49	1	n.s.
<u>Physical Restriction (Dependency on Others)</u>				
Local travel	73	8.09	1	.01
Travel outside area	83	21.75	1	.01
Vacation	29	1.43	1	n.s.

In Table 11 the physical restriction questions dealing with home maintenance, car ownership, mechanical condition of vehicle, and dependence on relatives for help, have been cross tabulated with

three mobility questions. Mobility has been indicated by questions 43, 45, and 284 dealing with ability to travel to see friends, ability to travel out of the area, and the number of days spent traveling the last year. From the table, it is apparent that in the sample studied certain aspects of physical restriction are significantly related to forms of mobility.

The physical restriction of difficult home maintenance is not significantly related to the elderly's ability to get out of the area for drives or to the days spent traveling each year, but the low number of respondents indicating they traveled at all must be kept in mind. Wide scale planned traveling among the elderly must be considered initially low. Difficult home maintenance does influence at the .05 level the elderly's local mobility of traveling to see friends. As it will be noted in the individual cross tabulations, all physical restrictions with the exception of mechanical condition of car significantly affect local mobility. This form of mobility would seem to be the most crucial type for all age levels of society.

Not owning their own vehicles or modes of transportation significantly restricts the sample's local travel and travel out of the area. Ownership of a car does not, however, play a restrictive part in the number of days spent traveling during the past year. Here, the question of finances could be considered. Even elderly having their own transportation may not be able to afford vacationing as such.

Interestingly enough, the physical restriction of having a poorly functioning automobile has no significant influence on any of the three aspects of mobility. In this case, the very subjective nature of the question could be important. Respondents may have indicated that their cars are in monstrous condition, but those same vehicles may take them where they want to go. It seems obvious that initially not having a car would be far more restrictive than having one in poor condition. Had a larger number of the sample owned cars, the mechanical condition of vehicles may have been a more influential factor in restricting mobility.

The physical restriction factor of dependence on others to take them places is, understandably, significantly related to both mobility within and outside the area. The first two distributions of question number 49 readily reveal this. As with all of the preceding cross tabulations of number of days spent traveling, dependence on others has no definite effect on this form of mobility. So few of the sampled elderly spend time vacationing that it is difficult to analyze the results in depth.

Hypothesis 2. Rural elderly having a high degree of mobility will:

- a) have a high degree of formal social involvement
- b) be more predominantly female than male.
- c) have a higher degree of physical health

- d) be less advanced in age
- e) have a higher level of income
- f) be more predominantly married than single
- g) be more predominantly working than non-working

The chi square test results for Hypothesis 2 (a) are presented below in Table 12.

TABLE 12
THE EFFECT OF FORMAL SOCIAL INVOLVEMENT
ON MOBILITY

Formal Social Involvement	N	chi square	df	Significance
<u>Mobility (Local Travel)</u>				
Vote	72	.42	1	n.s.
Membership in organizations	87	3.16	1	n.s.
Attend club	46	2.67	1	n.s.
Attend church	28	.14	1	n.s.
<u>Mobility (Travel Outside Area)</u>				
Vote	72	.03	1	n.s.
Membership in organizations	87	1.42	1	n.s.
Attend club	46	.30	1	n.s.
Attend church	28	.77	1	n.s.
<u>Mobility (Vacation)</u>				
Vote	23	.37	1	n.s.
Membership in organizations	27	2.00	1	n.s.
Attend club	19	2.13	1	n.s.
Attend church	13	.13	1	n.s.

From the data presented in Table 12, it appears that the entire Hypothesis 2 (a) is not supported. Levels of mobility can be seen to have no significant affect on levels of formal social involvement, or vice versa. Only in the instance of voting was the number

of respondents of initial large size. With regard to the three sections of question number 288, the steadily decreasing number of respondents becomes apparent. Of the 87 elderly indicating in section (a) of 288 that they belonged to zero or more organizations, only 46 actually belonged to one or more. Of the 46 belonging to at least one organization, the number attending church on any kind of a basis drops to 28. These trends may be seen in the cross tabulations of mobility questions which asked about the ability to travel within and outside of the area. At even a lower response level, the same trends may be observed with the mobility question which asked respondents the number of days they traveled during the last year. A mere 23 of the elderly who responded to the voting question were involved in any form of vacationing as such. Approximately one-half this number of senior citizens both attended church and vacationed at any level.

Table 13, page 86, reveals the chi square test results of Hypothesis 2 (b).

TABLE 13

THE RELATIONSHIP BETWEEN MOBILITY
AND SEX OF RESPONDENTS

Sex	N	chi square	df	Significance
	<u>Mobility (Local Travel)</u>			
Male-female	87	.29	1	n.s.
	<u>Mobility (Travel Outside Area)</u>			
Male-female	87	.15	1	n.s.
	<u>Mobility (Vacation)</u>			
Male-female	27	3.88	1	.05

Sex of the elderly respondent is seen not to be significantly related to either of the first two mobility questions. Females are no more likely to travel locally to see friends or outside the area than are males. Sex is observed to be significantly related to the final mobility question which concerns the number of days per year the respondents traveled. Of the total sample, however, 76 per cent of the males and 67 per cent of the females, indicated that they did not spend time traveling. Thus, although the number of respondents who spend time traveling is low, the relationship to sex appears to be valid. It appears reasonable to conclude from this distribution that females engage in the vacationing form of mobility more extensively than do males. Many possible reasons would be suggested for this difference. Research data have shown that females have closer family ties and well-developed familial roles. Also, the sexes could conceivably have differing definitions of travel.

The chi square test results for Hypothesis 2 (c) may be observed in Table 14 below.

TABLE 14
THE EFFECT OF PHYSICAL HEALTH
ON MOBILITY

Physical Health	N	chi square	df	Significance
	<u>Mobility (Local Travel)</u>			
Activity Restriction	87	4.56	2	n.s.
	<u>Mobility (Travel Outside Area)</u>			
Activity Restriction	87	6.91	2	.05
	<u>Mobility (Vacation)</u>			
Activity Restriction	27	7.57	2	.05

It may be readily observed from Table 14 that physical health (Q. 325) which asked the number of days which respondents' activities were restricted by sickness is significantly related to two of the three mobility questions. Respondents often to frequently able to travel out of the area were, correspondingly, of a higher level of physical health. The cross tabulation of physical health with mobility reveals this significant relationship. The number of days spent traveling shows a similarly significant relationship with physical health. Not one of the respondents with an activity restriction of more than one month traveled three weeks or more during the past year.

From the distribution of the question which concerned respondents' ability to travel locally, it appears that severe

activity restriction was not significantly limiting. Elderly with a high degree of activity restriction are just as likely to travel locally as those with no or little health restrictions. Perhaps the causal factor of the health restriction could be important in limiting travel outside of the area. A cancer patient receiving cobalt treatments on a regular basis is a case in mind. Another perspective which could be considered is the importance of local travel. Elderly persons in poor health may forego extensive travel or consider it outside their realm, but they may endeavor to travel locally as much as possible.

Table 15 below shows the chi square test results for Hypothesis 2 (a).

TABLE 15

THE RELATIONSHIP BETWEEN MOBILITY
AND AGE OF RESPONDENTS

Age	N	chi square	df	Significance
	<u>Mobility (Local Travel)</u>			
Under 75 - Over 75	87	.00	1	n.s.
	<u>Mobility (Travel Outside Area)</u>			
Under 75 - Over 75	87	.51	1	n.s.
	<u>Mobility (Vacation)</u>			
Under 75 - Over 75	37	3.18	1	n.s.

Table 15 reveals that no significant relationship exists between the respondents' level of age of either 75 years and younger or 76 years and older and mobility. Age level is seen to have no bearing on ability to travel locally to see friends, or ability to travel outside the general area. Whether respondents were of advanced or less advanced age somewhat affected the vacationing form of mobility but not at a significant level. In summary, Hypothesis 2 (d) which stated that elderly having a high degree of mobility will be less advanced in age was not supported in this study. Factors other than age appear to be far more important to the mobility level of the elderly.

The chi square test results for Hypothesis 2 (e) may be seen in Table 16 below.

TABLE 16
THE EFFECT OF INCOME LEVEL
ON MOBILITY

Income	N	chi square	df	Significance
<u>Mobility (Local Travel)</u>				
Below \$3,000 -Below \$6,000 - \$6,000+	83	6.41	2	.05
<u>Mobility (Travel Outside Area)</u>				
Below \$3,000 -Below \$6,000 - \$6,000+	83	7.87	2	.05
<u>Mobility (Vacation)</u>				
Below \$3,000 -Below \$6,000 - \$6,000+	27	.09	2	n.s.

It is readily apparent from the test results that income level is significantly related to the elderly's ability to travel locally, and the frequency with which they travel outside the area. In the two distributions, only one respondent having a total family income of \$6000 or more rarely or never traveled to see friends, and none of the elderly in this income bracket were unable to travel outside the area. At the lowest income level of less than \$3000, however, several respondents were unable to travel locally and outside the general area. This data definitely lends support to the hypothesized relationship between a higher degree of mobility and a higher level of income. Similar to preceding test results, income does not appear to influence the number of days spent traveling per year. It can be seen in the table that all income levels travel two weeks or less with greater frequency than they travel for three weeks or more. Since income is not influential, it could be posed that vacationing is not important to even those elderly who can afford it.

The following distributions are the chi square test results for Hypothesis 2 (f).

TABLE 17

THE RELATIONSHIP BETWEEN MOBILITY AND
MARITAL STATUS

Marital Status	N	chi square	df	Significance
	<u>Mobility (Local Travel)</u>			
Married-single	86	.33	1	n.s.
	<u>Mobility (Travel Outside Area)</u>			
Married-single	86	.00	1	n.s.
	<u>Mobility (Vacation)</u>			
Married-single	29	.16	1	n.s.

None of the distributions and results offer support of the hypothesized relationship between being married and having a higher degree of mobility. As questions 43 and 45 reflect, both the married and single elderly are more able than unable to travel locally and outside of the area. Marital status appears not to be a significant factor in the number of days spent traveling per year either. Approximately equal numbers of married and single elderly vacationed two weeks or less and three weeks or more. In summary, then being single does not affect a lower degree of mobility. As previously indicated mobility is highly important to all senior citizens. Even owning fewer vehicles, the single elderly find a means of fulfilling their desire to travel.

Table 18, page 92, shows the chi square test results for Hypothesis 2(g).

TABLE 18
THE EFFECT OF EMPLOYMENT STATUS
ON MOBILITY

Employment Status	N	chi square	df	Significance
	<u>Mobility (Local Travel)</u>			
Working-nonworking	87	.35	1	n.s.
	<u>Mobility (Travel Outside Area)</u>			
Working-nonworking	87	.04	1	n.s.
	<u>Mobility (Vacation)</u>			
Working-nonworking	29	1.76	1	n.s.

Hypothesis 2 (g) is rejected in each of the three question distributions. There is no significant relationship between the sampled elderly's working or non-working status and their ability to travel locally, outside of the area, or vacation. The distributions and results of questions 43, 45 and 284, respectively, reveal this lack of affect. With no additional intervening factors here, perhaps the need to travel locally and outside the area is strong enough to create the ability to do so.

Hypothesis 3. Rural elderly having a high degree of formal social involvement will:

- a) be more predominantly female than male
- b) have completed more years of formal education
- c) have a higher level of income
- d) have a higher degree of physical health

- e) be less advanced in age
- f) be more predominantly married than single
- g) be more predominantly working than non-working

Table 19 below reveals the chi square test results for Hypothesis 3 (a).

TABLE 19

THE RELATIONSHIP BETWEEN FORMAL SOCIAL INVOLVEMENT
AND SEX OF RESPONDENTS

Formal Social Involvement	N	chi square	df	Significance
	<u>Sex (Male - Female)</u>			
Vote	72	.74	1	n.s.
Membership in organizations	88	.01	1	n.s.
Attend club	46	.38	1	n.s.
Attend church	28	1.07	1	n.s.

Although test results indicate that Hypothesis 3 (a) of females having a higher degree of formal social involvement must be rejected, the first distribution seems to merit further consideration. Of the total of 72 who responded in this instance, only 26 males as opposed to 46 females reported that they were registered voters. On the other hand, 11 males compared with two females were not involved to the point of being registered to vote. In view of this, it seems reasonable to consider the females more socially involved in the question number 197 distribution by nature of their initial registration. Registration

could feasibly be considered similar to membership in an organization. The three sections of formal social involvement question number 288, a, b, and c, deal with the number of organizations respondents belonging to, frequency of club attendance, and regularity of church attendance, respectively. In all of these distributions, the numbers of males and females responding are proportional to the numbers in the total sample. As such, these test results may be considered valid indicators of the lack of relationship between sex and these aspects of formal social involvement.

The chi square test results for Hypothesis 3 (b) are indicated in Table 20 below.

TABLE 20
THE EFFECT OF EDUCATION ON FORMAL
SOCIAL INVOLVEMENT

Formal Social Involvement	N	chi square	df	Significance
<u>Formal Education (To Eight Years - Above)</u>				
Vote	72	.13	1	n.s.
Membership in Organizations	88	7.54	1	.01
Attend club	46	.84	1	n.s.
Attend church	28	.49	1	n.s.

It may be readily observed in Table 20 that in only one instance is there a significant relationship between the elderly having a higher level of education and a higher degree of formal social involvement.

From the distribution of question number 288 (a) and level of education, it appears that respondents of the nine or more years bracket belonged to two or more organizations in far greater numbers. This relationship did not hold, however, for the two frequencies of attendance aspects of formal social involvement. As evident in sections a and b of question number 288, elderly having a higher level of education attended clubs and churches with somewhat less regularity than their less well educated counterparts. Question number 197 asked respondents whether they voted in the last city election. It may be seen that this distribution does not support the stated hypothesis. In summary, it appears that well educated elderly belong to more organizations, as one aspect of formal social involvement, but they do not significantly participate more at this level than the less well educated. The possibility of high level education, middle to upper class status, and the desirability of belonging to many clubs could be considered here.

Table 21, page 96, shows the chi square test results for Hypothesis 3 (c).

TABLE 21

THE RELATIONSHIP BETWEEN FORMAL SOCIAL INVOLVEMENT
AND LEVEL OF INCOME

Formal Social Involvement	N	chi square	df	Significance
Income (Below \$3,000 - Below \$6,000 - \$6,000+)				
Vote	69	.37	2	n.s.
Membership in organizations	84	7.58	2	.01
Attend club	44	1.09	2	n.s.
Attend church	27	3.07	2	n.s.

Similar to the results of the education-formal social involvement cross tabulations, the elderly in Table 21 having higher levels of income significantly belong to more organizations and clubs. This relationship may be seen in the distribution of question number 288 (a), which asked respondents the total number of organizations they presently belonged to. Reflected in questions 197, 288 (b), and 288 (c), however, high income elderly do not vote, attend clubs, and frequent churches in significantly greater numbers than the lower income elderly. Thus the membership aspect of formal social involvement is the only one influenced by having a higher level of income.

The chi square test results of Hypothesis 3 (d) are indicated in Table 22, page 97.

TABLE 22

THE EFFECT OF PHYSICAL HEALTH ON
FORMAL SOCIAL INVOLVEMENT

Formal Social Involvement	N	chi square	df	Significance
<u>Physical Health (Activity Restriction)</u>				
Vote	72	15.12	2	.01
Membership in organizations	88	.08	2	n.s.
Attend club	46	2.16	2	n.s.
Attend church	28	.27	2	n.s.

It is not surprising to see that the only aspect of formal social involvement that is significantly related to physical health is voting. Only four of the 35 elderly who reported never having activity restriction due to health did not vote in the last city election. Comparatively, nine of the 14 senior citizens reporting restriction of a month or more had not voted. It has been previously indicated that the elderly sample as a whole is not involved extensively in membership or participation in clubs and churches. Apparently, having a high or low degree of physical health does not alter social involvement at this level. It seems natural to hypothesize that voting is a more important form of formal social involvement for at least these rural elderly, and poor physical health appears to lower this existing high level of involvement. Voting would seem to require more in the respect of active participation than merely belonging to an organization and logically, would be less feasible for those in poor health.

Table 23 below shows the chi square test results for Hypothesis 3 (e).

TABLE 23
THE RELATIONSHIP BETWEEN FORMAL SOCIAL INVOLVEMENT
AND AGE OF RESPONDENTS

Formal Social Involvement	N	chi square	df	Significance
	Age (Under 75 - Over 75)			
Vote	72	5.54	1	.05
Membership in organizations	88	.61	1	n.s.
Attend club	46	3.47	1	n.s.
Attend church	27	.77	1	n.s.

It may be readily seen in Table 23 that only one aspect of formal social involvement is significantly related to age level. The age distribution of voting, however, contradicts the stated direction of Hypothesis 3 (e). The elderly of advanced age display a higher degree of the voting aspect of formal social involvement than do the less advanced in age. These results seem to negate many of the conclusions on aging and disengagement available today. Not only are the advanced aged not severed from at least one aspect of involvement, but they are more likely than their younger counterparts to be actively involved in voting. In sections a, b, and c of question number 288, it is apparent that level of age in no significant way influences club membership, club attendance, and church attendance, respectively. In fact, as noted in question 288 (a), the advanced aged are slightly

more likely to belong to two or more organizations than the less advanced aged group. Due to these results, the entire Hypothesis 3 (e) must be rejected.

Test results for Hypothesis 3 (f) are indicated in Table 24 below.

TABLE 24
THE EFFECT OF MARITAL STATUS ON FORMAL
SOCIAL INVOLVEMENT

Formal Social Involvement	N	chi square	df	Significance
<u>Marital Status (Married - Single)</u>				
Vote	71	.11	1	n.s.
Membership in organizations	87	2.53	1	n.s.
Attend club	46	3.15	1	n.s.
Attend church	28	.00	1	n.s.

There exists no significant relationship between marital status and degree of formal social involvement. It may be observed in the table that the single elderly are as likely to vote, belong to organizations, and attend clubs and churches as the married in this sample. There appears to be a slight relationship between being single and belonging to and participating less in organizations, questions 288 (a) and 288 (B). Although the relationship is not significant for these small town elderly, it is worth pondering. A slight stigma operating against single persons to exclude them from organizational affiliation or a reluctance on their behalf to singly join may be

important here. One might expect this stigma or reluctance to become more important in a larger, impersonal city.

Table 25 below shows the chi square test results for Hypothesis 3 (g).

TABLE 25
THE RELATIONSHIP BETWEEN FORMAL SOCIAL INVOLVEMENT
AND EMPLOYMENT STATUS

Formal Social Involvement	N	chi square	df	Significance
<u>Employment Status (Working - Non-Working)</u>				
Vote	72	.06	1	n.s.
Membership in organizations	87	.04	1	n.s.
Attend club	46	.12	1	n.s.
Attend church	27	2.64	1	n.s.

In light of the test results in Table 25, the entire Hypothesis 2 (g) has been rejected. There exists no significant relationships between a high level of any of the aspects of formal social involvement and the employment status of elderly. The distribution of question 288 (c) shows that the non-working aged are slightly more inclined to attend church frequently but not at the .05 level of significance. Free time or the opportunity for close informal relationships may draw more non-working than working senior citizens. In summary, however, employment status itself appears to have little bearing on the elderly's level of formal social involvement.

Hypothesis 4. Rural elderly having a high comparative biographical assessment will:

- a) have a high degree of formal social involvement
- b) be less advanced in age
- c) be more predominantly married than single
- d) have completed more years of formal education
- e) have a higher degree of physical health
- f) have a higher level of income
- g) be more predominantly working than non-working

Below is Table 26, the chi square test results for Hypothesis 4 (a) are shown.

TABLE 26

THE EFFECT OF FORMAL SOCIAL INVOLVEMENT ON
COMPARATIVE BIOGRAPHICAL ASSESSMENT

Formal Social Involvement	N	chi square	df	Significance
<u>Comparative Biographical Assessment (Responsible)</u>				
Vote	91	.25	1	n.s.
Membership in organizations	87	7.38	1	.05
Attend club	45	.01	1	n.s.
Attend church	28	.00	1	n.s.
<u>Comparative Biographical Assessment (Influential)</u>				
Vote	73	.93	2	n.s.
Membership in organizations	88	4.69	2	n.s.
Attend club	46	.07	2	n.s.
Attend church	28	.19	2	n.s.

In cross tabulating comparative biographical assessment with the formal social involvement questions, respondents were asked whether their responsibilities were as strong as 30 years ago and whether they felt they had more, the same, or less power than 20 years ago. The first pair of distributions do not support the stated hypothesis. Respondents who were highly involved in the voting aspect of formal social involvement, did not have higher comparative biographical assessments than the non-voters. It is possible that voting is a ritualistic duty, important, but not necessarily an extension of a self-image of control, influence or responsibility.

The second set of cross tabulations is of special interest. Those elderly having a higher degree of formal social involvement, indicated by belonging to two or more organizations, have a significantly higher comparative biographical assessment of responsibility. It appears that being a member of many organizations affects a feeling of being a responsible person for this sample of elderly. The distribution of questions 286 and 288 (a) show the same effect in operation, but not at the .05 level of significance. Here the difference between feeling responsible and feeling influential seems apparent. One who belongs may have many responsibilities, but not much ultimate influence.

In each of these instances, both assessments and involvements could be seen as the causal factors. Arbitrarily, the researcher has

assumed that the comparative self-assessment is more subject to change over a period of time, given differing situations. The focus of this study is the situation or life choice and its affect on aspects of aging.

Concerning self-assessment, club attendance, and church attendance, no significant relationships exist. Those elderly who attend infrequently appear to feel just as responsible and influential as those attending on a regular basis. The act of belonging to many organizations seems to be of far greater importance. Organizational membership may serve to initially elevate the ego; whereas, once the membership has been acquired, attendance does nothing to alter this self-assessment.

Table 27, below, presents the chi square test results for Hypothesis 4 (b).

TABLE 27

THE RELATIONSHIP BETWEEN COMPARATIVE BIOGRAPHICAL
ASSESSMENT AND AGE

Comparative Biographical Assessment	N	chi square	df	Significance
	<u>Age (Under 75 -- Over 75)</u>			
Responsible	87	.90	1	n.s.
Influential	88	3.70	2	n.s.

As it may be seen in the table above, in neither of the two distributions is the age bracket significantly related to comparative

biographical assessment. Elderly 76 years and older are as likely to feel responsible and influential as those of the age bracket of 75 years and younger. Perhaps, the possible change of assessment would occur at or before the age of 65 but remain relatively constant after that. In view of these results, Hypothesis 4 (b) has been rejected.

The chi square test results for Hypothesis 4 (c) are shown below in Table 28.

TABLE 28

THE EFFECT OF MARITAL STATUS ON COMPARATIVE
BIOGRAPHICAL ASSESSMENT

Comparative Biographical Assessment	N	chi square	df	Significance
	<u>Marital Status (Married - Single)</u>			
Responsible	86	.04	1	n.s.
Influential	87	1.62	2	n.s.

It may be readily observed in Table 28 that being married or single has no significant influence on the elderly person's comparative biographical assessment. The results are not surprising in view of previous cross tabulations with marital status. It is interesting to note that the single elderly person feels just as responsible and influential as the married senior citizen. One could conjecture that replacements for former roles of responsibility associated with marriage have not been supplied or that the single elderly person has as many avenues of responsibility and influence available to him.

Table 29 reveals the chi square test results for Hypothesis 4 (d).

TABLE 29
THE RELATIONSHIP BETWEEN COMPARATIVE BIOGRAPHICAL
ASSESSMENT AND EDUCATION

Comparative Biographical Assessment	N	chi square	df	Significance
	<u>Education (To Eight Years - Above)</u>			
Responsible	87	.43	1	n.s.
Influential	88	3.25	2	n.s.

Neither of the two distribution results support the hypothesis of those of a higher level education having a higher comparative biographical assessment. There is a slight trend evident in the distribution of question 386 with education which shows the more educated elderly feeling more or at least the same degree of influence. This relationship does not, however, reach the .05 level of significance. It seems safe to say that education makes us feel more important, if not more influential today, simply by virtue of the high value we place on it. Having had a high level of education may not have the same value to the rural elderly sampled here.

The chi square test results for Hypothesis 4 (e) are presented in Table 30 on page 106.

TABLE 30

THE EFFECT OF PHYSICAL HEALTH ON COMPARATIVE
BIOGRAPHICAL ASSESSMENT

Comparative Biographical Assessment	N	chi square	df	Significance
<u>Physical Health (Activity Restriction)</u>				
Responsible	87	.31	2	n.s.
Influential	88	2.01	4	n.s.

The absence of any significant relationships between physical health and responsibility or influence, as is shown in the table above, leads one to question the value of this health inquiry. Perhaps a comparative type of health question might have additionally been asked. It seems possible that some of the elderly may have been in chronically poor health most of their lives, and as such, adjusted to the restriction without feeling less responsible or influential. A recent onset of illness might, on the other hand, initiate more severe feelings of helplessness.

Table 31, page 107, reveals the chi square test results for Hypothesis 4 (f).

TABLE 31

THE RELATIONSHIP BETWEEN COMPARATIVE BIOGRAPHICAL
ASSESSMENT AND INCOME

Comparative Biographical Assessment	N	chi square	df	Significance
Income (Below \$3,000 - Below \$6,000 - \$6,000+)				
Responsible	81	8.44	2	.05
Influential	84	25.58	4	.01

It is readily apparent from the statistical analysis that both high feelings of comparative responsibility and comparative power are significantly affected by having a high level of income. This seems very reasonable to expect, although high income is a very relative term. To many persons, \$6,000 total family income per year before taxes would barely be enough to meet daily necessities. Three-thousand dollars per year might seem impossible. One could pose the question of how any of these elderly have a high comparative biographical assessment. As it has been noted, those in the lower income brackets definitely do not. From the data presented thus far, the elderly sampled have been seen to be highly adaptive in many respects. Asking that they adapt to less than \$3,000 a year may be too much.

The chi square test results for Hypothesis 4 (g) are shown in Table 32 on page 108.

TABLE 32

THE EFFECT OF EMPLOYMENT STATUS ON COMPARATIVE
BIOGRAPHICAL ASSESSMENT

Comparative Biographical Assessment	N	chi square	df	Significance
<u>Employment Status (Working - Non-Working)</u>				
Responsible	87	.77	1	n.s.
Influential	88	1.26	2	n.s.

From the data given in Table 32, it can be observed that no significant relationship exists between the working or non-working status and either of the two aspects of comparative biographical assessment. The workers display no higher assessments than the non-working elderly. The fact that housewives have been grouped for traditional purposes in the category of non-working may have something to do with the lack of relationships. By the nature of their kind of work, housewives not only do not retire, but they have ready access to many non-paying service types of work. It would be interesting to examine distributions with the working, the housewives, and the retired employment statuses.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

This investigation was designed to determine which of the many sociological variables affect the rural elderly's formal social involvement and mobility. Physical restriction, marital status, employment status, and comparative biographical assessment were isolated as major variables which would influence the involvement and mobility aspects of life choice. Additional demographic variables of sex, age, education, income, and physical health were examined for their possible influence on this interrelationship.

Interviewed for this study were 51 females and 37 males, aged 65 years and older, from the small rural town of Roundup, Montana. Well over half of these elderly participants were single, had attained eight or fewer years of formal education, and were 75 years old or younger. Nearly one-half of the 88 elderly surveyed indicated themselves to be in good health by having had no activity restriction during the past year.

Data were collected by personal interview of respondents in Roundup in the spring through fall period of 1972. As an offspring of the more comprehensive study in process for the State Commission on Aging, this research used the in-depth Social Indicators Study as

its test instrument. A selected group of interviewers completed the instrument questionnaire for each of the 88 respondents. Data were coded and transferred for computer processing.

Four major hypotheses were proposed and tested using the chi square test of independence. The chi square analysis revealed information on either the existing relationship between two variables or the lack of influence, as compared with the expected score distributions. Hypotheses were accepted or rejected on the basis of the set .05 level of significance. The following paragraphs summarize the results of the chi square tests applied to the four hypotheses.

Hypothesis 1. Hypothesis 1 (a) was supported for only the voting aspect of formal social involvement and the degree of dependency on others category of physical restriction. Hypothesis 1 (b) was rejected by all indicators with the exception of being male and having high physical restriction in the area of a poorly functioning vehicle. Hypothesis 1 (c) was supported in the instance of having to depend on others but was rejected by the basis of the other physical restriction criteria. Hypothesis 1 (d) was rejected in total, as none of the tests met the .05 level of significance. Hypothesis 1 (e) was sustained for the physical restrictions of car ownership, mechanical condition of vehicle, and dependency on others but was rejected on the criterion of home maintenance. Hypothesis 1(f) was

supported for the assessment criterion of feeling responsible and the physical restriction aspect of low level dependency on others. All other physical restriction indicators were not related to comparative biographical assessment. Hypothesis 1 (g) was rejected in all instances with the exception of the physical restriction of not owning a car. Hypothesis 1 (h) was supported for all indicators except home maintenance. Hypothesis 1 (i) was rejected in every instance but the ownership of a vehicle. Hypothesis 1 (j) was held tenable for the ability to travel locally and home maintenance, car ownership, and dependence on others. Further supporting the hypothesis was ability to travel outside the area and car ownership and dependency on others.

Hypothesis 2. Hypothesis 2 (a) was rejected on the basis of all indicators. Hypothesis 2 (b) was rejected by all criteria except the vacationing aspect of mobility. Hypothesis 2 (c) was sustained by all measures with the exception of mobility indicator of ability to travel locally. Hypothesis 2 (d) was rejected in total. Hypothesis 2 (e) was held tenable by all criteria except the vacationing aspect of mobility. Both sections (f) and (g) of Hypothesis 2 were rejected by all of the indicators.

Hypothesis 3. Hypothesis 3 (a) was rejected by all criteria of formal social involvement. Hypothesis 3 (b) was rejected by all aspects of involvement with the exception of the supporting relationship

between high level of education and high degree of organizational membership. Hypothesis 3 (c) was supported by only the criterion of high level of organizational membership. The indicators of voting, club attendance, and church attendance rejected the hypothesis. Hypothesis 3 (d) was rejected by all criteria with the exception of the voting aspect of formal social involvement. Hypothesis 3 (e) was not only rejected by every indicator, but the high voting aspect of formal social involvement was related to advanced age. Both sections (f) and (g) of Hypothesis 3 were rejected in total by all criteria.

Hypothesis 4. Hypothesis 4 (a) was rejected by all formal social involvement and comparative biographical assessment criteria with the exception of one supporting relationship. The aspects of feeling responsible and high level organizational membership were related. Hypotheses 4 (b) and 4 (c) were rejected in total by all criteria. Both sections (d) and (e) of Hypothesis 4 were rejected on the basis of test results. Hypothesis 4 (f) was supported by both assessment indicators of feeling influential and responsible. As cross tabulations did meet the set .05 level of significance, Hypothesis 4 (g) was rejected in total.

Conclusions

It is apparent from this study that the rural small town elderly are both highly adaptive and determined in the face of many restrictions. In spite of having a difficult home to maintain, no automobile, and for those with vehicles, ones in poor condition, the elderly stay formally socially involved at the levels they desire. Being of the advanced age bracket has no effect on the amount of restriction or the comparative self-image the elderly person has. The single elderly person is bothered to no greater degree with physical restrictions, is as able to travel to places, is as formally socially involved, and has as high a comparative biographical assessment as his or her married counterpart. Not owning their own forms of transportation and still accomplishing these things seems to say something additional about the resiliency of the single aged.

There exists, however, certain readily identifiable factors which serve to limit the life space of senior citizens. The aged person who has to depend on others to take him places is in poor health, has a lower level of education, is less able to vote, has a less favorable comparative self-image, and is less able to travel locally or outside of the area. He is further restricted by having to depend on others if he has a low income. It appears that those measures which would serve to make the elderly person more independent, hence, more physically

and psychologically self-sufficient, would create more behavioral alternatives for the aged. Improvements in health, income, the availability of their own forms of transportation, and to some degree, education seem to be desperately in order. As may be witnessed in the instances of many disenfranchised minority groups, giving them some type of work to do just is not sufficient.

Many of our formal social institutions such as clubs, organizations, and churches appear not to interest the elderly population. It seems grossly unfair, then, to rate their desire for involvement on this basis. The elderly sampled in this study preferred the active forms of involvement such as voting, traveling to see friends, and traveling out of the area for drives, just to be a part of what was going on. Once again, low income and poor physical health were obstacles to their ability to be active in this way.

All of these factors comprise what has been termed life choice. Life choice makes all the difference to aging.

Recommendations

Although many interesting trends of the impact of life choice on aging have been discovered in this study, the researcher feels certain recommendations would be helpful for future studies in this area.

To increase the predictive and generalizing ability of a life choice study on aging, future investigations should sample in more than one geographic region. The rural elderly of Montana might differ considerably from a rural sample on the eastern coastline. In generalizing to the larger elderly population, it seems additionally important that a representative sample of urban elderly be included. As prior research has indicated that rural populations tend to be more socially isolated and restricted in terms of life choice, it would be interesting to see how the urban aged compare.

Dealing with all of the ramifications of life choice seems to be too comprehensive for one study. Two possible approaches are suggested as solutions. First, the researcher might select only one or two aspects of life choice and deal extensively with them. The interaction of physical restriction and mobility and the standard intervening variables could be a study in itself. Secondly, the investigator could use only one specific question to identify each of the variables tested. By having only one measurement for each of the criteria, hypotheses can be more accurately and readily accepted or rejected. This, of course, would entail formulating very precise and comprehensive questions.

Because accurate indicators were not available, at least one important aspect of life choice was not examined. Formal social involvement was seen to be relatively unimportant to the rural elderly

and affected very little by the crucial restrictions identified. It is hoped that additional studies will investigate possible relationships between informal social involvement, formal social involvement and these restrictions. Only one aspect of formal social involvement was significantly related to comparative self-image, but it seems possible that self-image would be highly related to informal types of involvement.

Since several of the demographic variables have been seen to influence the life choice of the elderly, it would be interesting to test for interrelationships between them. The variables of physical health, level of income, and level of education are suggested for examination. It is additionally recommended that the variable of present or former occupational status be considered in future studies. As present employment status was not related to involvement, restriction, comparative self-image, or mobility, it is possible that occupational prestige would have a greater affect. For example, retired doctors may consider themselves still as doctors, primarily, and as retired in a secondary sense.

One final recommendation could be made for a continuation of this study or additional studies on aging. Often relationships are not significant because the total sample size was small or the number of individuals responding to a particular question was exceedingly

low. This may have been the case with some of the relationships in this study which did not quite meet the set level of significance. In view of this possibility, it is recommended that home maintenance and ability to travel outside of the area, mechanical condition of vehicle and ability to travel locally, and age and club attendance be further scrutinized.

REFERENCES

REFERENCES

- Bice, T. W., & Eichhorn, R. L. When hard workers retire. Rural Sociology, 1968, 33, 480-483.
- Block, W., & Weber, I. L. Suicide among the elderly: isolating widowhood and mitigating alternatives. Journal of Marriage and the Family, 1972, 34, 24-31.
- Botwinick, J. Cognitive Processes in Maturity and Old Age. New York: Springer Publishing Company, Inc., 1967.
- Bultena, G. L., & Oyler, R. Effects of health on disengagement and morale. Aging and Human Development, 1971, 2, 142-148.
- Butler, R. N., & Lewis, M. I. Aging and Mental Health. St. Louis: C. V. Mosby Company, 1973.
- Crawford, M. P. Retirement and disengagement. Human Relations, 1971, 24, 255-278.
- Crittenden, J. Aging and party affiliation. Public Opinion Quarterly, 1962, 26, 648-657.
- Cumming, E. Disengagement--a tentative theory of aging. Sociometry, 1960, 23, 23-35.
- Ellison, D. L. Will to live--a link between social structure and health among the elderly. Sociological Symposium, 1969, (2), 37-47.
- Evans, I. W., & Brown, A. S. Aging in Montana--A Survey of the Needs and Problems of Montana's Senior Citizens. University of Montana: Institute for Social Science Research, 1970.
- Field, M. Aging With Honor and Dignity. Springfield, Ill.: Charles C. Thomas, 1968.
- Ford, C. S. Ego-adaptive mechanisms of older persons. Social Casework, 1965, 46, 16-21.
- Funk, J. Roundup miracle of the Musselshell? Term paper, Montana State University, 1965.

- Gergen, K. J. & Back, K. W. Communication in the interview and the disengaged respondent. Public Opinion Quarterly, 1966, 30 (3) 385-398.
- Glasser, L. N., & Glasser, P. H. Role reversal and conflict between aged parents and their children. Journal of Marriage and Family Living, 1962, 24, 46-51.
- Glen, N. D., & Grimes, M. Aging, voting, and political interest. American Sociological Review, 1968, 33, 563-575.
- _____. Aging, disengagement, and opinionation. Public Opinion Quarterly, 1969, 33 (1), 17-33.
- Great Falls Tribune, Roundup isn't ghost town, Musselshell Chamber says. Great Falls, Montana: Tribune Publishing Co., December 13, 1961.
- Great Falls Tribune. Roundup gathers new hope for future. Great Falls, Montana: Tribune Publishing Co., November 7, 1971.
- Gustafson, N. C. Recent Trends/Future Prospects: A Look at Upper Midwest Population Changes. Minneapolis: Upper Midwest Council, 1973.
- Habner, L. D. Age and capacity devaluation. Journal of Health and Social Behavior, 1970, 11 (3), 167-182.
- Havighurst, R. J. Body, self and society. Sociology and Social Research, 1965, 49, 261-267.
- Hazell, K. Social and Medical Problems of the Elderly. London: Hutchinson Medical Publications, Ltd., 1965.
- Isenstadt, T. R. New developments in the field of aging. Social Casework, 1966, 47, 378-381.
- Istominia, Z. I. Memory in elderly individuals engaged in highly intellectual professions. Soviet Review, 1967-68, 8 (4), 24-31.
- Josephson, E., & Josephson, M. Man Alone. New York: Dell Publishing Company, Inc., 1962.

- Kalish, R. The dependencies of old people. Occasional Papers in Gerontology. Institute of Gerontology, The University of Michigan-Wayne State University, (6), 1969.
- Kaplan, H. B., & Pokorny, A. D. Aging and self-attitude: a conditional relationship. Aging and Human Development, 1970, 1 (3), 241-250.
- Kapnick, F. L., Goodman, J. S., & Cornwell, E. E., Jr. Political behavior in the aged: some new data. Journal of Gerontology, 1968, 23, 305-310.
- King, C. E., & Howell, W. H. Role characteristics of flexible and inflexible retired persons. Sociology and Social Research, 1965, 49, 153-165.
- Koller, M. R. Social Gerontology. New York: Random House, 1968.
- Landis, J. T. Social-psychological factors of aging. Social Forces, 1942, 20, 468-470.
- Landis, P. H. Emerging problems of the aged. Social Forces, 1942, 20, 460-467.
- Lane, B. Attitudes of youth toward the aged. Journal of Marriage and the Family, 1964, 26, 229-231.
- Lipman, A., & Sterne, R. S. Aging in the United States: ascription of a terminal sick role. Sociology and Social Research, 1969, 53, 194-203.
- Magge, R. H. Age variations in Old-Age Assistance. Welfare in Review, 1966, 4, 13-18.
- Maltz, M. Psychocybernetics. New York: Prentice-Hall, Inc., 1960.
- Mayo, S. C. Social participation among the older population in rural areas of Wake County, North Carolina. Social Forces, 1951, 30, 53-59.
- McCall, G. J., & Simmons, J. L. Identities and Interactions. New York: The Free Press, 1966.

- Mercer, J. R., & Butler, E. W. Disengagement of the aged population and response differentials in survey research. Social Forces, 1967, 46, 89-95.
- Messer, M. Age grouping and the family status of the elderly. Sociology and Social Research, 1968, 52, 271-279.
- Payne, R. Some theoretical approaches to the sociology of aging. Social Forces, 1960, 38-39, 359-362.
- Preston, C. E. A cross-national comparison of subjectives agedness. International Journal of Comparative Sociology, 1970, 11 (1), 54-58.
- Reid, O. M. Aging Americans. Welfare in Review, 1966, 4, 1-12.
- Riley, M. W., & Foner, A. Aging and Society. New York: Russell Sage Foundation, 1968.
- Rose, A. M. Class differences among the elderly: a research report. Sociology and Social Research, 1966, 50, 356-360.
- Rogers, C. R., & Stevens, B. Person to Person. New York: Pocket Books, 1971.
- Rosenblatt, A. Interest of older persons in volunteer activities. Social Work, 1966, 11, 87-94.
- Rosenfelt, R. H. The elderly mystique. Journal of Social Issues, 1965, 21, 37-43.
- Rosenmayer, L. Family relations of the elderly. Journal of Marriage and the Family, 1968, 30, 672-680.
- Shaffer, H. S. Plight of the aged. Editorial Research Reports, 1971, 11, 865-882.
- Shanas, E. A note on restriction of life space: attitudes of age cohorts. Journal of Health and Social Behavior, 1968, 9 (1), 86-90.
- _____. Old People in Three Industrial Societies. New York: Atherton Press, 1968.

- _____. Aging and life space in Poland and the United States. Journal of Health and Social Behavior, 1970, 11 (3), 183-190.
- Simpson, I. H., & Spengler, J. F. Social Aspects of Aging. Durham, N. C.: Duke University Press, 1966.
- State of Montana, Department of Planning and Economic Development. County data by enumeration district for: Yellowstone County, Musselshell County. Helena, Montana: State Information System, 1970.
- Stearns, H. J. The Upper Musselshell Valley of Montana (to 1920). Harlowton and Ryegate, Mt.: Times-Clarion Publishers, 1966.
- Stinnet, N., Collins, J., & Montgomery, J. E. Marital need satisfaction of older husbands and wives. Journal of Marriage and the Family, 1970, 32, 428-434.
- Talland, G. H. Human Aging and Behavior: Recent Advances in Research and Theory. New York: Academic Press, 1968.
- Taves, M. J., & Brotman, H. B. Trends in public action for the aging. Welfare in Review, 1965, 3, 1-7.
- Thompson, W. E., Streib, G. F., & Kosh, J. The effect of retirement on personal adjustment: a panel analysis. Journal of Gerontology, 1960, 15 (2), 165-169.
- Tibbitts, C. Handbook of Social Gerontology. University of Chicago: The University of Chicago Press, 1960.
- Tureck, H. J., & Sullivan, M. P. The Montana "senior citizen," his stereotype, his reality in two sample communities, and some tentative findings. Unpublished report to the Montana State Commission of Aging, Bozeman, Montana, Montana State University, 1972.
- U. S. Department of Commerce, Bureau of the Census. Number of Inhabitants. 1970.
- _____, Bureau of the Census. General population characteristics. 1971.
- _____, Bureau of the Census. General social and economic characteristics. 1971.

_____, Bureau of the Census. Detailed characteristics; 1970 census of population. Washington, D. C.: 1972.

Youmans, G. E. Pessimism among older rural and urban persons. Journal of Health and Human Behavior, 1961. 2 (2), 132-137.

_____. Objective and subjective economic disengagement among older rural and urban men. Journal of Gerontology, 1966, 21, 439-441.

Zola, I. K. Feelings about age among older people. Journal of Gerontology, 1962, 17, 65-69.

APPENDIX

S O C I A L I N D I C A T O R S S T U D Y

"SENIOR CITIZEN"

Department of Sociology

Montana State University

Bozeman, Montana

STUDY NUMBER _____

INTERVIEW NUMBER _____

COUNTY _____

TOWN _____

E.D. DISTRICT _____

1. Would you please tell me the following information about the people living in this house? Start with yourself. (If there are people living here who are not relatives, please list them as FRIENDS or BOARDERS. The Boarders are those who pay for their lodging.)

What is the relationship of each individual to the head of the household?	Sex	Age
1. _____	_____	_____
2. _____	_____	_____
3. _____	_____	_____
4. _____	_____	_____

Enter the total number of household members:

2. Are you now:

_____ 1. married _____ 2. widowed _____ 3. divorced
 _____ 4. single _____ 5. separated

3. If widowed, divorced or separated: How long? _____

4. What do you consider to be your race?

_____ 1. Caucasian _____ 2. American Indian _____ 3. Negro
 _____ 4. Mexican American _____ 5. Other _____ 9. No Response

5. How many years of schooling have you completed?

1. 0 - 7 2. 8 3. 9 - 11 4. 12
 5. 1 - 3 years of college 9. 4 years of college or more

6. Have you had any vocational or technical training?

1. yes 2. no (If yes, please explain) _____

7. (INTERVIEWER: INDICATE THE TYPE OF DWELLING UNIT IN WHICH THE RESPONDENT LIVES, THROUGH OBSERVATION.)

_____ 1. House _____ 2. Apartment

_____ 3. Mobile Home (trailer) _____ 4. A room in a residential hotel

_____ 5. Boarding house (ASK: Is this a licensed boarding house: _____ 1.yes

_____ 6. Foster Home _____ 7. A room in the _____ 2.no

home of a friend

or relative

_____ 8. Other (please specify) _____

8. Do you own or rent this house (apartment), or is your rent provided free?

_____ 1. Own (SKIP TO BOTTOM OF PAGE 2)

_____ 2. Rent (SKIP TO BOTTOM OF PAGE 2)

_____ 3. Rent free (SKIP TO QUESTION 15)

_____ 4. Other (please specify) _____

(SKIP TO QUESTION 15)

_____ 5. No response (SKIP TO QUESTION 15)

9. Is there a mortgage or lien on this house? _____ 1. yes

_____ 2. no

9-a. If yes, how much are your monthly payments? _____

9-b. Could you tell me how much your taxes are each year? _____

10. Here in Montana, tax relief is available to homeowners (men must be 65 and women must be 62) who qualify by certain housing evaluation and yearly income. Have you heard of this form of tax relief before?

- ☐ 1. yes (SKIP TO QUESTION 10)
☐ 2. no Would you be interested in more information?
 ☐ 1. yes ☐ 2. no
☐ 9. no response
☐ 0. not applicable

IF RESPONDENT RENTS ASK:

11. Could you tell me how much your rent is each month?

- | | |
|--|---|
| ☐ 1. less than \$40 | ☐ 6. \$120-\$149 |
| ☐ 2. \$40 - \$59 | ☐ 7. \$150-\$199 |
| ☐ 3. \$60 - \$79 | ☐ 8. \$200 and above |
| ☐ 4. \$80 - \$99 | ☐ 9. no response |
| ☐ 5. \$100-\$119 | ☐ 0. not applicable |

12. Do you feel that at present your housing costs including repairs and taxes are too high for your budget or about right?

- ☐ 1. Too high WHY? ☐ 3. Don't know
☐ 2. About right ☐ 9. No response

13. Do you feel that there will be any problems meeting these payments or costs in the future, let us say five years from now?

- ☐ 1. yes. WHY? _____ ☐ 9. no response
☐ 2. no ☐ 0. not applicable
☐ 3. don't know

13-a. How old is your home?

1. less than 5 years _____ 4. More than 25 years
 (specify)
 2. 5-15 years
 3. 15-25 years

The cost of housing is not the only important thing about the house one lives in. There are other factors such as the style of the house itself, the neighborhood, and the area the house is in, and the convenience of the house to shopping, church, and other community services. I would like to ask you some questions about your house and these other factors.

Let us start with your house as it is built:

14. Is the maintainance on your home presently easy to keep up with?

- _____ 1. yes
2. no WHY?

INTERVIEWER: DO QUESTION 15 BY OBSERVATION IF POSSIBLE

15. Do you have electricity in your home?

1. yes 2. no

INTERVIEWER: RECORD AS MUCH AS POSSIBLE BY OBSERVATION

16. Do you have an electric, gas or wood burning range (cooking stove)?

- _____ 1. electric or gas
- _____ 2. wood burning
- _____ 3. other (please specify) _____

16-a. Do you have a refrigerator? . 1. yes 2. no

17. Do you have electric, gas or wood heat in this home?..

- _____ 1. electric or gas _____ 3. other (please specify _____
2. wood

18. Are there indoor bathroom facilities in this home?

____ 1. yes

____ 2. no

IF respondent lives in an apartment or boarding house, ask:

Do you share bathroom facilities with other people?

____ 1. yes

____ 2. no

IF yes, how many other people share these bathroom facilities with you?

19. Do you have a bathtub or shower in this home?

____ 1. yes

____ 2. no

20. Are there any things about your home such as the size of the house, year-round temperature, stairs inside and out, cupboards and shelves or lighting you find either bothersome or dangerous?

1. Yes WHICH ONES? _____

2. No

20-a. Are there any other things? _____

21. Within the next five years, can you see any of the things we've talked about or anything else as becoming harder to handle, as becoming inconvenient, or as affecting the ease with which you live?

____ 1. yes What things specifically? _____

____ 2. no

22. As we've been talking about your home (some things seem to be inconvenient for you) or (most things seem to be very comfortable for you). Are there any changes you would like to make?

_____ 1. yes What are they? _____

_____ (SKIP TO BOX) _____

_____ 2. no (SKIP TO 31)

23. Are you presently planning to make changes in your home?

_____ 1. yes What ones? _____

_____ 2. no WHY? _____

24. Will/Would you be able to finance changes in your home?

_____ 1. yes From what sources? _____

_____ 2. no Why not? _____

25. Are you aware of any outside funds that might be available to you to remodel your home?

_____ 1. yes What are these? _____

_____ 2. no _____ 9. no response 0. not applicable

26. In general, would you feel that your house is:

- ☐ 1. comfortable and easy to live in
☐ 2. presents a few problems but I like it
☐ 3. has many problems but it is still home
☐ 4. has many problems and would like to move
☐ 9. no response

27. We seem to have been talking about the parts of your house that could be bad or dangerous. I would like to ask you what you like about your house. (Explain)

What do you find convenient?

Almost as important as the style of one's home, is its closeness to shopping areas, churches, post office, bank, and other community services. I would like to first talk to you about the means of transportation that you use in getting to these places.

28. First, do you own a car/truck?

- ☐ 1. yes (SKIP TO BOX) ☐ 2. no

How many vehicles do you own? _____

(BOX STARTS ON PAGE 133)

29. How would you rate the mechanical condition of your best car/truck?
(READ CATAGORIES)

- | | |
|-------------------------------------|-------------------------------|
| 1. very good | 4. needs repairs all the time |
| 2. good | 5. doesn't run (dependably) |
| 3. needs a few repairs occasionally | |

INTERVIEWER: IF RESPONDENT ANSWERS 3-5, ASK:

30. Is the cost of these repairs absorbing a large part of your income (more than I can afford), an average portion (about what I can afford), or only a small portion of my income?

_____ 1. large _____ 2. average _____ 3. small

31. Is it paid for?

- | | |
|---------------------|-------------------|
| 1. yes (SKIP TO 37) | 9. no response |
| 2. no | 0. not applicable |

32. Could you tell me how much you owe on it? _____

33. Could you tell me how much your monthly payments on it are? _____

People tend to use their cars for many purposes. For example: shopping, visiting, pleasure drives in the country, or going to work.

34. Do you drive your car all the time?

- | |
|-----------------------------------|
| _____ 1. yes |
| _____ 2. no When don't you? _____ |
| _____ 9. no response |
| _____ 0. not applicable |

(BOX CONTINUED ON PAGE 134)

(CONTINUATION OF BOX)

35. Would you like to sell your car/truck?

☐ 1. yes☐ 9. no response☐ 2. no☐ 0. not applicable

INTERVIEWER: IF RESPONDENT ANSWERS "YES" TO QUESTION 35, ASK:

36. Why haven't you sold your car/truck? _____

37. I am now going to read you a list of several means of transportation. Would you please tell me which you use most often, and which you use as your second most frequent form.

☐ 1. my own car☐ 9. no response☐ 2. a friend's car☐ 3. taxi☐ 4. walking☐ 5. other (Please specify) _____

38. Why do you usually travel by (READ CATEGORY CHECKED IN QUESTION 37)

☐ 1. economical☐ 4. most enjoyable☐ 2. convenience☐ 5. other (please specify) _____☐ 3. only form available _____

Would you use any of the following forms of transportation, if they were available to you?

39. bus service ___1. yes ___2. no ___3. don't know
40. car pool for senior
citizens ___1. yes ___2. no ___3. don't know
41. taxi service with
senior citizen discount ___1. yes ___2. no ___3. don't know
42. other (please specify) _____

Considering your own transportation situation,

43. Are you able to travel to see friends? (READ CATEGORIES)

- _____ 1. as often as you wish _____ 3. rarely
_____ 2. sometimes _____ 4. never

44. Are you able to travel to get necessary items, such as drugs and groceries? (READ CATEGORIES)

- _____ 1. as often as you wish _____ 3. rarely
2. sometimes 4. never

45. Are you able to get out of the area/neighborhood to go for drives, etc.? (READ CATEGORIES)

- _____ 1. as often as you wish _____ 3. rarely
2. sometimes 4. never

A job that all must engage in and some even find enjoyable is shopping for food and other necessities in life.

Again considering your present transportation situation:

46. Does getting major items (such as weekly groceries) present a problem?

1. yes WHY? _____
2. no _____

47. Does getting small daily items (such as milk and bread) present a problem?

- ____ 1. yes WHY? _____
 ____ 2. no

48. Do you have family living in this area?

- ____ 1. yes
 ____ 2. no

49. How often must you rely on your family or friends to take you places, pick up your groceries, mail, library books, or drugs?
 (READ CATEGORIES)

- 49-a. WHICH DO YOU RELY ON: ____ 1. Family ____ 2. Friends
 ____ 1. frequently ____ 3. rarely
 ____ 2. occasionally ____ 4. never

IF RESPONDENT ANSWERS 1 OR 2 ON QUESTION 49 SKIP TO BOX

Most of the time do you rely on your family or friends:

50. to pick up groceries?

- ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

51. to pick up drugs?

- ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

52. to pick up mail?

- ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

53. to pick up library books?

- ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

54. to do your laundry?

- ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

55. to take you places? (such as visiting friends)

- ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

(BOX CONTINUED ON PAGE 137)

(CONTINUATION OF BOX)

56. to take you on vacations?

___1. yes ___2. no ___9. no response ___0. not applicable

57. to take you on outings, like picnics?

___1. yes ___2. no ___9. no response ___0. not applicable

58. Do you find the present arrangements for shopping satisfactory?

___1. yes (SKIP TO QUESTION 63)

___2. no (SKIP TO BOX)

59. Would you like to have someone's company in helping you shop?

___1. yes ___2. no ___9. no response ___0. not applicable

60. Would you like to have someone shop for you?

___1. yes ___2. no ___9. no response ___0. not applicable

61. Would you like to have stores deliver your phoned-in order?

___1. yes ___2. no ___9. no response ___0. not applicable

62. What other arrangements would you like? (please specify) _____

63. Do you have any problems doing your laundry?

___1. yes Explain _____

___2. no How do you have your laundry done? _____

[omit in Billings]

64. Do you receive your mail as often as you would like?

___1. yes

___2. no (SKIP TO BOX)

___9. no response

___0. not applicable

65. Is mail delivered to your home?

 1. yes

How often? _____

2. no

66. Do you have a post office box?

 1. yes

2. não

___9. no response

10. not applicable

67. What things keep you from getting your mail?

68. Do you bank:

1. yes

(SKIP TO BOX)

2. no

69. Are you able to bank as often as you like?

1. yes

2. no

WHY:

70. Do you subscribe to any magazines, belong to any book clubs or receive any newspapers?

1. yes

Which ones? MAGAZINES: _____

NEWSPAPERS: _____

BOOKCLUBS: _____

2. no WHY?

71. Do you buy any books, magazines, newspapers at the store?

____ 1. yes Which ones? _____

____ 2. no

72. Do your friends give you any books, magazines, or newspapers?

____ 1. yes Which ones? _____

____ 2. no

73. Do you or did you enjoy reading?

____ 1. yes (SKIP TO BOX)

____ 2. no (SKIP TO QUESTION 79)

____ 9. no response

____ 0. not applicable

ONLY USE OF RESPONDENT DOESN'T GET READING MATERIALS (BCX)

74. Would you tell me why you do not get any magazines, books, or newspapers?

____ 1. cost

____ 2. health (eyesight)

____ 3. other (please specify) _____

____ 9. no response

____ 0. not applicable

IF RESPONDENT CHECKED 1, SKIP TO QUESTION 79

IF RESPONDENT CHECKED 2, SKIP TO QUESTION 75

75. Do you know of any programs where books or magazines are made available in enlarged print or put on phonograph records for individuals who want them?

____ 1. yes do you use this service? _____

____ 2. no

(CONTINUED ON NEXT PAGE)

76. Does the public library have such facilities?

____ 1. yes (ASK QUESTION 77)

____ 2. no (ASK QUESTION 78)

____ 3. don't know

____ 9. no response

____ 0. not applicable

77. Do you use these facilities?

____ 1. yes

____ 2. no

____ 9. no response

____ 0. not applicable

78. Would you like to see such services available?

____ 1. yes

____ 2. no

____ 9. no response

____ 0. not applicable

79. The library is considered by many as a place to find and use reading materials. Are there library facilities available to you in (name town)?

____ 1. yes (SKIP TO QUESTION 81)

____ 2. no (SKIP TO QUESTION 80)

80. Would you make use of the library services if they were available? (SKIP TO 84)

____ 1. yes

____ 2. no

____ 9. no response

____ 0. not applicable

81. Do you use the library facilities? (READ CATEGORIES)

____ 1. often

____ 4. never

____ 2. frequently

____ 5. other (please specify) _____

____ 3. once in a while

82. Would you like to use the library more frequently?

____ 1. yes

____ 2. no (SKIP TO 84)

(BOX CONTINUED ON PAGE 141)

83. Are there any reasons which affect how often you use the library?

- ____ 1. yes Please explain _____

 ____ 2. no

84. Are there any reading materials or library services such as having books brought to your home, a book mobile service, that you would like to see available?

- ____ 1. yes
 Reading materials _____

 Services _____

 ____ 2. no

Now, let's talk about drugstores.

85. In relation to your home, is the location of your drugstore:

- ____ 1. convenient ____ 9. no response
 ____ 2. not convenient ____ 0. not applicable

86. Do you know of any drugstores in the area that offer FREE home delivery services?

- ____ 1. yes ____ 2. no ____ 9. no response

IF YES, ASK QUESTION 87

IF NO, ASK QUESTION 88

87. Do you use this service?

- ____ 1. yes ____ 2. no Why not? _____
 ____ 9. no response ____ 0. not applicable

88. Would you use this service?

- ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

89. Do you belong to a church?

- ____ 1. Which one? _____ ____ 2. no

90. How often do you attend church?

- | | |
|---|--|
| ☐ 1. more than once a week | ☐ 5. twice a year |
| ☐ 2. once a week | ☐ 6. other _____ |
| ☐ 3. twice a month | ☐ 7. never |
| ☐ 4. once a month | |

91. Does getting to church present a problem?

- ☐ 1. yes ☐ 2. no ☐ 9. no response ☐ 0. not applicable

92. Frequently, church organizations provide transportation to services; does your church have such a program?

- ☐ 1. yes ☐ 2. no ☐ 9. no response ☐ 0. not applicable

IF YES, ASK QUESTION 93

93. Do you use it?

- ☐ 1. yes ☐ 2. no ☐ 9. no response ☐ 0. not applicable

We have talked about the way your house is built and the convenience or lack of convenience of your house to services, I would now like to ask you some questions about the area your house is in.

94. How long have you lived in this neighborhood?

- | | |
|--|--|
| ☐ 1. under one year | ☐ 6. 15-19 years |
| ☐ 2. 1-2 years | ☐ 7. 20 or more years |
| ☐ 3. 3-4 years | ☐ 8. all my life |
| ☐ 4. 5-9 years | ☐ 9. no response |
| ☐ 5. 10-14 years | |

95. Have you lived in this same house all of this time?

- ☐ 1. yes
- ☐ 2. no How many years? _____

96. What are some of the things you like about living in this neighborhood? _____

97. What are some of the things you don't like about living in this neighborhood? _____

98. When you think of friends, do most of your good friends live:
(READ CATEGORIES)

- | | |
|---------------------------------------|-------------------------|
| _____ 1. in neighborhood | _____ 9. no response |
| _____ 2. outside of this neighborhood | _____ 0. not applicable |

99. Do the people in this neighborhood often visit one another?

- _____ 1. yes _____ 2. no Why not? _____

99-a. How important do you think it is to know your neighbors well in a community?

- | | |
|-----------------------------|----------------------|
| _____ 1. very important | _____ 4. unimportant |
| _____ 2. somewhat important | _____ 5. don't know |
| _____ 3. not very important | _____ 9. no response |

99-b. How important do you think it is for neighbors to visit one another?

- | | |
|-----------------------------|----------------------|
| _____ 1. very important | _____ 4. unimportant |
| _____ 2. somewhat important | _____ 5. don't know |
| _____ 3. not very important | _____ 9. no response |

100. Friends often meet and visit in places other than each others homes. Is most of the contact you have with your friends in the home (either yours or theirs), or do you often meet elsewhere?
INTERVIEWER: IF RESPONDENT DOES NOT UNDERSTAND, GIVE EXAMPLES AS BARS, CLUBS, CHURCHES, ETC.

- | | |
|---|-------------------------|
| _____ 1. at home (mine or theirs) | |
| _____ 2. other places Where? _____ | |
| _____ 3. about the same amount of time at home and outside the home Where? _____ | |
| _____ 4. other (explain) _____ | |
| _____ 9. no response | _____ 0. not applicable |

IF MARRIED ASK:

101. What about your spouse? Does he/she visit mostly in homes, or do they meet at other places?

- ☐ 1. at home (mine or theirs)
☐ 2. other places Where? _____
☐ 3. about the same amount of time at home and outside the home
 Where? _____

☐ 4. other (explain) _____
☐ 9. no response
☐ 0. not applicable

102. Do you feel that in this neighborhood people care about one another?

- ☐ 1. yes ☐ 2. no ☐ 9. no response ☐ 0. not applicable

103. Do you feel that neighbors know you well enough to come to you for help in an emergency?

- ☐ 1. yes ☐ 2. no ☐ 9. no response ☐ 0. not applicable

104. Do you feel that you could turn to neighbors in case of an emergency?

- ☐ 1. yes ☐ 2. no ☐ 9. no response ☐ 0. not applicable

105. In general, how would you rate this neighborhood as a place to live?

- | | |
|---------------------------------------|--|
| ☐ 1. very good | ☐ 5. very poor |
| ☐ 2. good | ☐ 6. don't know |
| ☐ 3. fair | ☐ 9. no response |
| ☐ 4. poor | ☐ 0. not applicable |

106. Where did you live before you moved here? _____

How many times have you moved:

107. within the city? _____

108. within the state? _____

109. within the northwest? _____

110. within the United States? _____

111. Did it take you very long to get to know everybody in this neighborhood?

____ 1. yes Why do you think that was so? _____

____ 2. no _____ 0. not applicable

____ 9. no response

112. Is it easy for you to get together with your friends?

____ 1. yes _____ 2. Why not? _____

113. What about your spouse? Is it easy for him/her to get together with his/her friends?

____ 1. yes _____ 2. no Why not? _____

IF YOU DO NOT SEE A TELEPHONE IN THE UNIT, ASK:

114. Do you have a telephone in this house?

____ 1. yes (SKIP TO QUESTION 120)

____ 2. no (SKIP TO BOX) _____ 9. no response

115. Have you ever had a telephone?

____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

116. Do you feel that a telephone would be useful?

____ 1. yes (ASK QUESTION 117)

____ 2. no (ASK QUESTION 118)

117. Could you tell me the main reason you do not have a phone now?

____ 1. poor hearing _____ 4. other (explain) _____

____ 2. cost _____ 9. no response

____ 3. never had one _____ 0. not applicable

118. In case of emergency, would you like to be able to get to a telephone?

____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

(BOX CONTINUED ON 146)

(CONTINUATION OF BOX)

119. How far away is the nearest telephone?

- | | |
|--|--|
| ☐ 1. next door | ☐ 5. don't know |
| ☐ 2. a block away | ☐ 9. no response |
| ☐ 3. a quarter a mile away | ☐ 0. not applicable |
| ☐ 4. half a mile or more away | |

(SKIP TO 122)

120. How often do you visit over the phone?

- | | |
|--|---|
| ☐ 1. daily | ☐ 5. never (do not visit by phone) |
| ☐ 2. more than once a week | ☐ 9. no response |
| ☐ 3. once a week | ☐ 0. not applicable |
| ☐ 4. more than once a month | |

121. Is there any particular reason you don't visit by phone?

- | | |
|--|-------|
| ☐ 1. don't care to | |
| ☐ 2. costs too much to call | |
| ☐ 3. have poor hearing | |
| ☐ 4. other (explain) | _____ |
| | _____ |
| ☐ 9. no response | |
| ☐ 0. not applicable | |

122. How often do you shop by telephone? (READ CATEGORIES)

- | | |
|--|------------------------------------|
| ☐ 1. frequently | ☐ 3. rarely |
| ☐ 2. occasionally | ☐ 4. never |

123. In the (number of years) that you have been here, what changes, both physical and social, have you seen occur? (INTERVIEWER: IF RESPONDENT HAS NOT MENTIONED EITHER CHANGES IN PEOPLE OR BUILDINGS, ASK: HAVE THERE BEEN ANY CHANGES IN THE PEOPLE/OR/THE WAY THE NEIGHBORHOOD IS BUILT.) _____

124. Have there been any other changes? _____

125. What would you say were the most important forces in changing the neighborhood? _____

126. Compared to ten years ago, how would you say this neighborhood rates as a place to live? (READ CATEGORIES)

- | | |
|----------------------|-------------------------|
| _____ 1. better | _____ 9. no response |
| _____ 2. as good | _____ 0. not applicable |
| _____ 3. not as good | |

127. Five years from now, what do you think the neighborhood will be like? _____

128. Do people move frequently in this neighborhood?

- _____ 1. yes _____ 2. no _____ 9. no response

129. What affect does this have on the neighborhood? _____

130. Does the frequent moving have any effect on you? _____

131. If you had to move, would you want to stay in this neighborhood; or would you want to move somewhere else?

- _____ 1. stay in neighborhood
_____ 2. move somewhere else
_____ 3. doesn't matter
_____ 4. don't know

132. Have you ever considered moving?

- ____ 1. yes Why? _____
 ____ 2. no
 ____ 3. don't know

133. Where to? _____

133-a. Why haven't you moved? _____

134. Do you feel that you could find a place to live easily?

- ____ 1. yes ____ 2. no

IF RESPONDENT OWNS HOME:

135. Do you feel that you could sell your house?

- ____ 1. yes ____ 2. no

136. Both the government and private enterprise have built different types of housing for those over 65. If the time came when you had to move, would you want to move to one of the following living arrangements:

- ____ 1. retirement community
 ____ 2. apartment for senior citizens
 ____ 3. an apartment for senior citizens with a central dining room
 ____ 4. a home with services?

What services: _____

- ____ 5. a nursing home
 ____ 6. none of the above

OR: Could you describe to me the kind of living situation you'd like?

We have been talking about the neighborhood you live in; I would like to ask you some questions about the general area you live in. (IN BILLINGS, REFER TO BILLINGS, LAUREL - REFER TO LAUREL: IN THE RURAL AREA AND SMALLER TOWNS REFER TO GENERAL AREA, SUCH AS HARLOWTON AREA, ETC.)

137. What do you like about living in the _____ area?

138. What don't you like about the _____ area?

139. Did you move to this area at the same time that you moved to this neighborhood; before you moved to this neighborhood; or were you born right here in this neighborhood?

- ☐ 1. same time
- ☐ 2. before
- ☐ 3. born here

Record date: _____

IF ONE OR TWO IS CHECKED, ASK:

140. Could you tell me why you moved here? (NOTE: IF "because of parents," ASK REASON FOR PARENTS MOVING TO AREA) _____

(NOTE: IF RESPONDENT IS FEMALE AND ANSWERS "because of husband," WRITE THAT DOWN AND INQUIRE ABOUT WHY HUSBAND CAME TO THE AREA.)

IF THREE IS CHECKED, ASK:

141. Why did your family move here? _____

IF RESPONDENT WAS NOT BORN HERE IN AREA, SKIP TO BOX:

141. What was the name of the place you were raised: (town and state) _____

142. About what was the population? _____

143. How old were you when you left? _____

144. Where did you live just before coming here? (Meaning area) _____

145. Have you ever lived in (INTERVIEWER: CHECK SIZE OF RESPONDENT'S AREA AND DO NOT ASK)

a. city was over 500,000 (like Denver or Seattle) ☐ yes ☐ no How long _____

b. city with over 100,000 (like Spokane) ☐ yes ☐ no How long _____

(BOX CONTINUED ON PAGE 150)

CONTINUATION OF BOX

c.	city with over 50,000 (like Billings)	<u> yes </u>	<u> no </u>	How long
d.	small city (like Helena or Bozeman)	<u> yes </u>	<u> no </u>	How Long
e.	town with less than 10,000 (like Laurel or Lewistown)	<u> yes </u>	<u> no </u>	How Long
f.	village with 500 or less	<u> yes </u>	<u> no </u>	How long
g.	a rural (farm or ranch area)	<u> yes </u>	<u> no </u>	How long
h.	did you or your spouse ever homestead?	<u> yes </u>	<u> no </u>	How long

146. You mentioned to me that you have lived here for _____ years, and came because of _____. I would like to ask you if you ever considered leaving the area and starting over?

1. yes 2. no 3. no response

IF RESPONDENT ANSWERS "YES," ASK:

147. Have you ever thought about where you might like to go?

Why there?

148. A lot of people have considered this and some have actually tried to do so. Do you feel that it would be possible for people 65 and over to start over again?

1. Yes WHY? _____

2. No WHY?

9. No Response

194. Are there any other groups or people who helped to get things started?

195. Are you a registered voter?

1. yes (IF YES, NOTE: CITY, COUNTY, STATE)

2. no

9. no response

IF YES, ASK:

196. What is your party affiliation?

1. Republican

2. Democrat

3. Independent

4. Other (Please Specify) _____

197. Did you vote in the:

1. last election in _____ (city) 1. yes 2. no

2. last election in _____ (county) 1. yes 2. no

3. last election (state) 1. yes 2. no

4. last election (national) 1. yes 2. no

198. Do you think that citizens in this community over 65 have a great deal of say or very little say about the way the community is run?

1. great deal to say

3. don't know

2. little say

9. no response

199. Do you feel that you should have more say in community affairs than you do?

1. yes

3. don't know

2. no

9. no response

200. Recently there has been talk of those over 65 forming a voting bloc to make the changes that they want.

Do you think such a bloc would be the best way for people in the community who are over 65 to have more say about how things are run?

1. yes

2. no Why not? _____

201. Would you be interested in supporting such a bloc?

1. yes

2. no Are there any reasons why you wouldn't? _____

3. don't know

9. response

Now I'd like to ask you some questions about your occupation (and that of your spouse).

202. What is your present employment status?

_____ 1. Work full time (SKIP TO BOX A)

_____ 2. Work part time (SKIP TO BOX A)

_____ 3. Unemployed (SKIP TO BOX A)

_____ 4. Laid off temporarily/on strike (SKIP TO BOX A)

_____ 5. Leave of absence (SKIP TO BOX A)

_____ 6. Seasonal (SKIP TO BOX A)

_____ 7. Retired (SKIP TO BOX B)

_____ 8. Housewife (SKIP TO BOX C)

WORKING PERSONS

BOX A

203. About how many hours per week do/did you work? _____

204. About how many months per year do/did you work? _____

205. Where do/did you work (self-employed or name of company/employer)? _____

206. What exactly did/do you do on the job? _____

207. About how long have/had you worked on that/your present job? _____

BOX CONTINUED ON PAGE 154

(CONTINUED FROM PAGE 153)

208. Do/did you belong to a union?

1. yes 2. no

1. Which union do/did you belong to?

2. How active are/were you in the union?

_____ 1. very active 2. somewhat active

3. just belonged with no participation

209. People work for many reasons. What would you say is the most important reason that you are working?

210. Have you considered retirement?

1. yes

When do you plan to retire?

WHY?

When did you first consider the possibility of retirement?

211. Have you ever retired from a job?

_____ 1. yes

1. Are you receiving a pension or retirement benefits?

 1. yes 2. no

IF YES, SKIP TO BOX

211-a. What exactly did you do on the job?

211-b. Who did you work for?

211-c. What made you decide to return to work?

212. How would you say your interest in your work has changed over the years? _____

213. What are your feelings about your present job? _____

RETIRED PERSONS

BOX B

214. How long have you been retired? _____

215. Do you receive a pension or retirement benefit?

_____ 1. yes _____ 2. no

IF YES SKIP TO BOX C

1. What exactly did you do on the job? _____

2. Who did you work for? _____

216. Why did you retire? _____

217. Is contact maintained between yourself and your previous employer?

_____ 1. yes How? _____

_____ 2. no _____ 0. not applicable

218. Do you maintain contact with any of your friends from work who are not yet retired?

_____ 1. yes _____ 2. no

219. Has the time since retirement been more enjoyable, less enjoyable or about the same as when you were working?

_____ 1. more Why? _____

_____ 2. less Why? _____

_____ 3. same Why? _____

(BOX CONTINUED ON PAGE 156)

220. Have you ever considered going back to work?

____ 1. yes ____ 2. no (SKIP TO QUESTION 230)

221. Why? _____ IF YES, ASK:

222. Are you now looking for a job?

____ 1. yes ____ 2. no

223. Has it been difficult for you to find out what jobs are available to you?

____ 1. yes ____ 2. no

224. Would a column in the local paper dealing with jobs for retired persons be helpful?

____ 1. yes ____ 2. no

225. Would you like to work if you could find the right sort of work?

____ 1. yes ____ 2. no (SKIP TO QUESTION 227)

226. What type of work would you enjoy doing? _____

227. Why? _____

228. Would you like to work ____ 1. full time ____ 2. part time

229. Is the amount of money you make important to you? ____ 1. yes

____ 2. no

230. If you knew of someone who was planning to retire, what advice would you give them? _____

WOMEN (BOX C)

231. As you look back over the last 40 years, would you say that there was a time when your household chores increased or decreased noticeably?

____ 1. yes ____ 2. no

____ 1. increase ____ 2. decrease (CONTINUED OF PAGE 157)

(BOX CONTINUED FROM PAGE 156)

When? _____

IF YES, ASK:

232. When that occurred, would you say that you suddenly had more/less time for other activities?

_____ 1. yes What ones? _____

_____ 2. no

276. How much time do you spend in leisure time activities? _____

Is this as much time as you'd like to spend?

_____ 1. yes

_____ 2. no Why not? _____

How much more time would you like to spend? _____

277. How much time do you spend just resting? _____

278. How do you usually spend your weekends, working, resting, or recreating?

_____ 1. working _____ 2. resting _____ 3. recreating

IF RETIRED, ASK:

279. Have your weekend activities changed since your retirement?

_____ 1. yes _____ 2. no

How? _____

IF WORKING:

280. Do you think your weekend activities will change after your retirement?

_____ 1. yes _____ 2. no

How? _____

281. During leisure time, what are the major activities that you engage in?

282. Often times there are other activities at which you might not spend a great deal of time, but which are still very enjoyable for you. Are there any other activities, besides the ones that you mentioned, at which you like to spend time? _____

283. Are there any activities that you no longer participate in now; that you wish you could?

_____ 1. yes _____ 2. no

What are they? _____

What prevents you from enjoying them now? _____

284. Many Americans are becoming more and more mobile these days, and traveling has become a very popular form of recreation.

284. Do you spend time traveling?

_____ 1. yes _____ 2. no (SKIP TO SECTION ON CLUBS)

How many days a year? _____

IF YES, ASK:

285. What means of transportation do you use? _____

286. How many trips have you made in the last year? _____

287. Where to? _____

288. Are the camping facilities adequate or would you like to see changes? _____

(CAMPING FACILITIES INCLUDE:

1. tent
2. trailer
3. camper
4. other (please specify)

_____ 1. adequate

_____ 2. changes

What changes would you like to see made? _____

Now I'd like to ask you about clubs and organizations you now belong to and have belonged to in the past.

Would you please tell me the names of all the clubs and organizations and the church to which you belong?

NAME OF CLUB

HOW OFTEN DO YOU GO?

HAVE YOU HELD
AN OFFICE

	Always	Most of time	Some- times	Almost Never	Held an office	Member of a Comm.
1. _____	_____	_____	_____	_____	_____	_____
2. _____	_____	_____	_____	_____	_____	_____
3. _____	_____	_____	_____	_____	_____	_____
4. _____	_____	_____	_____	_____	_____	_____
5. (church) _____	_____	_____	_____	_____	_____	_____

318. Throughout your lifetime, have you: (READ CATEGORIES)

- _____ 1. been generally healthy
 _____ 2. had a few major illnesses, but been generally healthy
 _____ 3. had a lot of health problems
 _____ 9. no response
 _____ 0. not applicable

319. During the last year, how often would you say that bad health prevented you from doing the things that you would have liked to be doing? (READ CATEGORIES)

- _____ 1. most of the time _____ 4. never
 _____ 2. about half of the time _____ 9. no response
 _____ 3. once in a while _____ 0. not applicable

320. Have you had a medical check-up in the last year?

- _____ 1. yes
 _____ 2. no Why? _____
 How long has it been since your last check-up? _____
 _____ 9. no response _____ 0. not applicable

321. Were you hospitalized at any time during the last year?

- ☐ 1. yes How long? _____
☐ 2. no
☐ 9. no response ☐ 0. not applicable

IF MARRIED ASK:

322. Was your spouse hospitalized at any time during the last year?

- ☐ 1. yes How long? _____
☐ 2. no
☐ 9. no response ☐ 0. not applicable

IF YES TO EITHER OF THE ABOVE TWO QUESTIONS, ASK:

323. While you/your spouse was hospitalized, did your spouse/you have any problems getting to visit?

- ☐ 1. yes What problems? _____
☐ 2. no ☐ 9. no response ☐ 0. not applicable

324. During the last year, about how much of the time were you sick to the point of having to give up some of your regular activities?

- | | |
|--|--|
| ☐ 1. never | ☐ 6. 3-6 months |
| ☐ 2. 1 week or less | ☐ 7. 6-9 months |
| ☐ 3. 2-3 weeks | ☐ 8. 9 months or more |
| ☐ 4. 3-4 weeks | ☐ 9. no response |
| ☐ 5. 1-3 months | ☐ 0. not applicable |

325. During the last month, about how many days were you sick to the point of having to give up some of your regular activities?

- | | |
|--|---|
| ☐ 1. no days (SKIP TO BOX A) | ☐ 5. 22 days or more (BOX B) |
| ☐ 2. 1-7 days (1 wk. or less) (BOX B) | |
| ☐ 3. 8-14 days (1-2 wks.) (BOX B) | ☐ 6. chronically ill (BOX B) |
| ☐ 4. 15-21 days (2-3 wks.) BOX B) | |
| ☐ 9. no response (BOX A) | ☐ 0. not applicable (BOX A) |

349. Is it necessary for you to take prescription drugs on a regular basis:

____ 1. yes

Do you have any trouble getting the drugs you need?

____ 1. yes What kind? _____

____ 2. no ____ 9. no response ____ 0. not applicable

____ 2. no

____ 9. no response

____ 0. not applicable

350. How do you feel about the cost of prescription drugs? _____

351. Do you contribute to any of the following health plans?

Medicare ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

Medicaid ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

Hospital
Ins. ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

Blue Cross ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

Blue
Shield ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

Insurance
for doctor
bills ____ 1. yes ____ 2. no ____ 9. no response ____ 0. not applicable

Other (specify) _____

INCOME

352. Would you please put a check beside the group in which your total family income (before taxes) was in 1972? (HAND THEM PAGE NUMBER 62)

____ 1. less than \$500

____ 6. \$4000-\$4,999

____ 2. \$500-\$900

____ 7. \$5000-\$5,999

____ 3. \$1000-\$1,999

____ 8. \$6000-\$9,999

____ 4. \$200-\$2,999

____ 9. \$10,000 or more

____ 5. \$3000-\$3,999

353. What is (are) the source(s) of your income?

- | | |
|---|---------------------------------------|
| <u> </u> 1. full-time job | <u> </u> 6. Savings |
| <u> </u> 2. part-time job | <u> </u> 7. investments |
| <u> </u> 3. Social Security | <u> </u> 8. income from property |
| <u> </u> 4. pension | <u> </u> 9. no response |
| <u> </u> 5. OAA (Old Age Assistance) | |

354. IF 8 IS ANSWERED POSITIVELY, ASK:

You have indicated that the ownership of property is one source of your income. Would you please tell me what you think the appropriate value of this property is?

384. Although responsibilities and obligations change, they can still remain as strong at 65 as they were at 40. Would you say that your own responsibilities are as strong now as they were 30 years ago?

 1. yes Are they different responsibilities? _____

 2. no Are they greater now or are they not as strong? _____

385. As a member of a group that is today becoming the focal point of a great number of government programs, do you feel that you have the power to make real change in the areas of your own interest?

 1. yes 2. no

386. Would you say that you have more power today than you did 20 years ago, less power, or about the same amount of power?

 1. more power 2. less power 3. about the same

387. What agencies do you feel are concerned about the senior citizen?

388. Are there local organizations geared toward giving the senior citizens in this area some voice in the decisions which are made which affect their lives?

 1. yes 2. no 3. don't know

389. IF YES ASK:

Do you belong to it?

____ 1. yes ____ 2. no

390. IF NO, ASK:

Would you like to belong to one if there were one?

____ 1. yes ____ 2. no

391. Do you think city government truly cares about the needs of the aged?

____ 1. yes ____ 2. no ____ 3. don't know

392. Do you think state government truly cares about the needs of the aged?

____ 1. yes ____ 2. no ____ 3. don't know

393. Do you think Federal government truly cares about the needs of the aged?

____ 1. yes ____ 2. no ____ 3. don't know

394. In looking at our Federal government today and its policies, what age group do you think it best represents? _____

395. What do you feel is the best way for government to find out what people really want? _____

396. How do you feel about being classified as a senior citizen for the purpose of this interview?

397. This survey is being conducted to give state agencies some idea about the lives and needs of people in Montana who are 65 and older, so that they can plan programs and give them aid. Do you feel that these surveys do any good?

____ 1. yes ____ 2. no ____ 3. don't know

MONTANA STATE UNIVERSITY LIBRARIES



3 1762 10014775 8

N378	
M189	MacKay, Lora
cop.2	The impact of life choice on aging

NAME AND ADDRESS	
2 Weeks Use	INTERLIBRARY LOAN
2 Weeks Use	INTERLIBRARY LOAN
JUL 5 1977	Peggy L. Strong Bor 1057/11 Livingston
	Peggy Strong Bor 1057/11
2 Weeks Use	INTERLIBRARY LOAN
2 Weeks Use	INTERLIBRARY LOAN
MAY 8 1978	Peggy Anderson d Bor 1057/11
FEB 28 1978	Peggy Anderson d Bor 1057/11
MAR 23 1980	Peggy Anderson d Bor 1057/11

N378
M189
Cap.2



2 Weeks