

Joint Center for Housing Studies

Harvard University

Housing America's Elderly Population

Robert Schafer

W99-4

January 1999

Robert Schafer is a Senior Research Fellow and Director of Housing Studies at the Joint Center for Housing Studies at Harvard University.

© by Robert Schafer. All rights reserved. Short sections of text, not to exceed two paragraphs, may be quoted without explicit permission provided that full credit, including copyright notice, is given to the source.

Any opinions expressed are those of the authors and not those of the Joint Center for Housing Studies of Harvard University or of any of the persons or organizations providing support to the Joint Center for Housing Studies.

Housing America's Elderly Population

Robert Schafer

Joint Center for Housing Studies

W99-4

January 1999

Abstract

This paper explores the housing choices of America's elderly households drawing on data from the recently available Assets and Health Dynamics Among the Oldest-Old (AHEAD) survey. By 2030, America's elderly population is expected to be 20 percent of the population.

Very few of the elderly reside in assisted living communities designed for the elderly, around three percent. About ten percent live in shared housing (units where a move has occurred so that an elderly person can live with a non-elderly person and receive help), with about seven percent in 60 plus communities without assistance, and five percent in supported housing (units where the elderly household is receiving support services from outside the household). Three-quarters of the elderly live in conventional housing, which is consistent with surveys showing that the elderly strongly desire to age in their own homes. Conventional housing is even the choice of the majority of those elderly who have moved recently.

The relationship between the choice of living arrangements and various demographic, socio-economic and structure characteristics is summarized. There is little regional variation in the type of housing selected by the elderly and income appears to have less of an effect than one might expect. However, educational achievement and net worth influence the choice of living arrangement. Specific medical ailments have little effect on housing choice, but the need for assistance with activities of daily living has a meaningful relationship with that decision. Many other factors, such as race, sex, marital status, tenure, costs, structure type, amount of space, and special features present in the dwelling unit, are examined. The procedure used to evaluate the market feasibility of assisted living facilities is evaluated.

Housing America's Elderly Population

by

Robert Schafer

As we age, we develop limitations that affect where we live, how we live and who we live with. Today's elderly, however, have several advantages over earlier generations, advantages which provide a wider range of residential choices. Technological and medical advances enable more seniors to live on their own or with only minimal assistance. Their increase in wealth, both individually and through social security, provides the means for seniors to purchase specialized goods and services to help compensate for their limitations and frailties. With their large and growing number, seniors provide a potent market segment who demand housing and services to meet their needs.

The particular needs of the elderly, combined with their growing numbers, present the housing market with new challenges in combining desired services with housing. Although the largest increases are expected to occur between 2010 and 2030, the number of persons 65 years old or older has grown from twenty million in 1970 (10 percent of the population) to nearly thirty-four million in 1996 (13 percent of the population). The population 65 years old or older is projected to be 58.9 million in 2030 (20 percent of the population). (Statistical Abstract of the United States, 1998, Table 17.) The increasing importance of the elderly will be largely due to the aging of the baby boom generation born between 1942 and 1964 with assistance from the revolution in nutrition and health care that has extended life expectancies. The socio-economic and health characteristics of the elderly are explored in a separate paper (Schafer, 1999). This paper focuses on the elderly's housing.

Surveys of the preferences of the elderly show that they overwhelmingly desire to live independently in their own homes. This desire to "age in place" is now recognized as an important objective in the design and implementation of support services for the elderly as they age and develop needs for various forms of assistance. Health and the capacity for independent living are two important considerations in understanding the needs of the elderly and the support services required to respond to their desire to remain in their own home or at least in housing situated in their community. Some will require or prefer specialized support

environments such as assisted living facilities which provide support services integrated as a part of the housing unit. Many more will demand mechanisms for support services to be furnished in their own homes, whether they be renters or owners. Technological change is increasing the capacity to deliver more services in non-specialized settings. For example, a wider variety of professionals and paraprofessionals now provide supportive services that until recently were only available from doctors; and new drugs are replacing invasive and costly procedures. There is need for a better understanding of who demands which type of housing/services combinations and what differentiates them.

The National Institute on Aging, one of the National Institutes of Health, has commissioned a longitudinal survey of a representative sample of all elderly persons in the United States who were 70 or more years of age in 1993. Persons living in long-term care facilities such as nursing homes or other institutions at the date of the initial interview are excluded from the survey. The first wave of data collection was completed in 1994, and the responses to the initial interviews are now available for analysis. Information on 8,222 elderly persons and 6,047 housing units are contained in the data. The respondents are to be re-interviewed every two years. While the second wave of data collection was completed in 1996, the information is not yet available for analysis. This survey is known as the Assets and Health Dynamics Among the Oldest-Old (AHEAD) survey.

AHEAD contains a wealth of information on a wide variety of topics related to the elderly. An extensive series of questions gather information on the activities of daily living that the elderly need assistance with and on the physical and mental health of the respondents. The survey has information on income, assets, debts, net worth, occupation, education and many other characteristics. In addition and of particular interest for the present paper, the survey contains information on the housing situation of the elderly. Although it would be ideal to also have information on elderly persons living in institutional situations, there is no data source that has adequate information on both the non-institutional and institutional elderly.

Five types of living arrangements are delineated for analysis: assisted living communities; unassisted 60 plus communities; shared housing; supported housing, and conventional housing. Approximately three-quarters of the elderly households reside in conventional housing arrangements. Only about three percent reside in assisted living

communities. Ten percent live in shared housing situations which were established for the specific purpose of the non-elderly member(s) of the household assisting the elderly member(s). Five percent reside in supported housing which involves the provision of support services by non-family members from outside of the home. About seven percent reside in unassisted 60 plus communities.

The next section gives an overview of the elderly. (See Schafer, 1999, for more detail.) The remainder of this paper explores the housing characteristics of the elderly, including living arrangements, housing types and health based needs for assistance, housing types and socio-economic characteristics, housing characteristics (including special assistance features), resident satisfaction, mobility, housing cost and marketing projections for assisted living communities.

Who Are The Elderly?

Approximately nine percent of the population is 70 years old or older (8.8 percent in 1992 and 9.0 percent in 1996). Based on the 1993 AHEAD data, there are approximately 21 million elderly persons at least 70 years of age; 38.3 percent of them are between 70 and 74, 28.8 percent are between 75 and 79, 19.5 percent are between 80 and 85, 9.3 percent are between 85 and 89 and 4 percent are 90 or older. Persons 70 years old or older are largely women and increasingly so with age, rising from 58.3 percent for the youngest to 79.2 percent for the oldest of the elderly. In general, the elderly are geographically distributed in proportion to the population at large; however, western, southern and eastern coastal states have the highest elderly growth rates. These elderly persons live in approximately 16.4 million households.

Approximately 62 percent of people age 70 or older are married and living with their spouse and about 28 percent are widowed. Only 3.1 percent were never married, and 5.5 percent are divorced or separated. As the elderly age, the situation changes dramatically. By age 90, the share of persons who are married and living with their spouse declines to 12.7 percent and those widowed increases to 76.5 percent. The main gender difference is the higher incidence of widowhood among women, which reflects the longer life expectancies of women. At age 70-74, women are nearly four times as likely as men to be widowed; men

who live to be older have a higher tendency than women to be married and living with their spouse (41.7 percent versus 5.1 percent for the 90 or older persons).

The educational achievement and occupational status of the elderly reflect society wide trends; younger elderly have higher educational achievement and are more likely to be or have been craftsmen and slightly more likely to be or have been in professional or managerial occupations, and less likely to be or have been in service occupations. The share of the elderly with higher education and professional/managerial occupational background is likely to grow for all age groups over the next thirty years.

Approximately nine percent are currently working. As a result, over half of the incomes of the elderly are derived from social security; another 20 percent comes from pensions with earnings contributing only five percent. Earnings from other household members and other investment income contribute nine and eight percent of the incomes of the elderly, respectively. Very little income comes from SSI or food stamps.

The distribution of the net worth of the elderly is bimodal with approximately 23 percent of the elderly having net worth under \$25,000 and about 23 percent having net worth between \$100,000 and \$225,000. An additional 15 percent have net worth between \$225,000 and \$500,000. About ten percent have net worth between \$25,000 and \$50,000, and 18 percent have net worth between \$50,000 and \$100,000

The incidence of various ailments such as high blood pressure, diabetes, cancer, lung disease, and arthritis do not vary with the age of the elderly. Out of over a dozen ailments surveyed in AHEAD, only poor vision and poor hearing showed a meaningful increase in incidence with age; somewhat smaller increases are found for incontinence and falls. Gender had little effect on the incidence of these ailments.

The best measures of the health of the elderly and their need for assistance are measures of difficulty with Activities of Daily Living (ADLs) and Instrumental Activities of Daily Living (IADLs). ADLs include walking, dressing, bathing, eating, getting in and out of bed, and using the toilet., and IADLs include preparing meals, grocery shopping, telephone use, taking medicine and money management. In general, the elderly experience increasing difficulty with ADLs and IADLs as they grow older. Whereas about 19 percent of 70 to 74 year olds had difficulty with at least one ADL, 74 percent of those 90 years old or older had difficulty with at least one ADL. Women have a higher incidence of having at least one ADL

than men, 33.1 percent compared to 24.2 percent for men. Similarly for IADLs, the percentage having difficulty with at least one IADL increased from 20 percent to 74 percent over the same age range. Age also increased the difficulty of walking several blocks, climbing stairs, moving heavy objects, lifting ten pounds or picking up a dime. However, the last task, picking up a dime, was only difficult for 18 percent of the oldest group. In addition, the cognitive skills decline with age, and depression increases with age.

Perceived availability of helpers declines dramatically with age. The percent perceiving that either a relative or a friend would be willing to provide long term help declines steadily with age from 44 percent for 70-74 year olds to 1.5 percent for the oldest group, with little difference between men and women. Younger and healthier persons appear more apt to expect family and friend assistance. The extent of assistance required with increasing frailty (i.e., age), as well as the decrease in the number of potential helpers from their own age cohort, and the growing conflicts between helping and leading normal lives in the younger cohorts of relatives lead very few of the oldest elderly to expect family or friend assistance. These trends coupled with a growing elderly population are responsible for the growth in the assisted living and home health care industries in recent years.

The elderly have considerable medical insurance coverage, largely due to Medicare, but relatively few carry long term care or nursing home coverage.

Living Arrangements

Traditionally, demand for housing depends on factors such as family size, income and wealth, and location in relation to major activities such as workplaces. What differentiates the demand for housing by the elderly is that they also seek to meet their needs for supportive services. Among those with pressing needs for care and support, the traditional factors act as constraints defining the types of housing and service combinations they are able to secure.

An often overlooked essential feature of the demand for elderly housing and choice of living arrangements is the strong preference of the elderly to remain in their long time homes and to never move. The American Association of Retired Persons (AARP) has conducted surveys of Americans 50 years old and older on a regular basis over the last decade. The responses have consistently shown that over 80 percent of the households prefer to remain in place, so-called aging in place. Although the AARP survey's low age requirement means that

it includes many households that are not elderly, some of the information is available for subgroups that are older. The most recent survey, as did the earlier ones, asked respondents if they agreed or disagreed with the statement: “What I’d really like to do is stay in my own home and never move.” In the January 1996 survey, 89 percent of the households aged 65-74 and 75-84 responded that they agreed with this statement, and 96 percent of those 85 or older responded that they agreed with this statement. (American Association of Retired Persons, 1996, Figure A1.) A fundamental fact is that the vast majority of the elderly want to live out their lives in their homes and, for the most part, they will be successful in this desire.

The strong preference of the elderly for their own home should not be surprising, at least not in the United States where independence and self-sufficiency are highly valued. In addition, the disruption and complications that are generated by a move are often more difficult for the elderly to manage. One consequence is the growing importance of service delivery mechanisms to provide support services to the elderly in their homes. Much effort needs to be expended in developing cost effective methods of delivering such services, but it is undoubtedly an area that will mature and grow tremendously over the next twenty years. Some conventional housing builders have begun to look on the provision of these and other services to homeowners and others as a line of business.

The information in the AHEAD data permit a closer look at the living arrangements of the elderly. The questionnaire identifies whether a household lives in housing that is limited to occupancy by households with at least one person 60 or more years of age, and further identifies what, if any, services the residents receive, such as nursing care, meals or other services. This information is used to describe two types of housing arrangements: 60 plus housing combined with support services and 60 plus housing without any support services. Although there is information on different combinations of assistance, the number of observations are too thin for much useful analysis. Approximately three percent of the 70 or older households live in age-restricted assisted living communities. Another 6.6 percent of these elderly households live in age-restricted elderly communities which do not provide assisted living. Within the assisted living communities, approximately one-third of them provide on-site nursing assistance, one quarter provide off-site nursing assistance and the remainder provide other services without any arrangements for nursing assistance. Apparently each occupant in these other communities is left to make their own arrangements

for nursing assistance if any is needed. Nine out of ten of these assisted living communities provide meals as a part of their services. The definition of assisted living presented here is based on the information in AHEAD, and is not necessarily the same as other definitions found in the field of assisted living where there are many variations in the use of the phrase “assisted living facilities” and similar phrases such as congregate housing . The present definition is a useful approach to analyzing the data found in AHEAD and is closely related to the more common uses of “assisted living” found in the field.

Two other types of living arrangements are discernible from the AHEAD responses. They will be referred to as the shared living and the supported housing arrangements. A shared living arrangement is defined to exist in either of two situations a) when a non-elderly person who is at least 18 years old moves in with an elderly person for the purpose of assisting the elderly person or b) when an elderly person moves in with a non-elderly person who is at least 18 years old for the purpose of receiving assistance from the non-elderly person. The term is used in this paper to refer to shared housing units and is not intended to imply shared rooms. For example, over 80 percent of the shared housing is in single family houses, and about 93 percent involves four or more rooms. A supportive housing environment is defined to occur when the elderly person is receiving supportive help in their home from an organization or from a non-resident individual who is not a family member.

These types of living arrangements are defined sequentially. The assisted living households are identified first and are followed by the other types in the following order (provided that no household assigned to a preceding type is allowed to be reassigned): plain 60 plus housing (i.e., no support services in age restricted housing), shared housing, supported housing and the remainder of households not otherwise assigned (i.e., conventional housing). These five types of housing are the basis of our review of the living arrangements of the elderly.

The living arrangements of the elderly are summarized in Table 1. The age of the oldest elderly person in the household is used to characterize the age of the household. In light of the strong elderly preference for remaining in their home, it is not surprising that nearly three-quarters of the elderly are living in conventional housing without any special support arrangements (other than the help of family members). This percentage remains high except for the oldest group where it drops to 37.3 percent. As indicated above, approximately

three percent of the elderly households live in assisted living age-restricted communities. Table 1 shows that the fraction living in such communities increases with the age of the oldest elderly person, especially after the age of 84. Approximately ten percent of the oldest elderly households live in assisted living communities. Residence in age restricted communities that do not provide support services is favored by 6.6 percent of the elderly and is most popular in the middle age ranges; the share residing in these communities is 5.2 percent for the youngest group, rises steadily to a peak of 8.3 percent for the 85-89 year olds and then declines to 3.8 percent for the oldest group. This pattern is expected for a living arrangement that does not provide support services; in this aspect it resembles conventional housing arrangements.

The utilization of shared and supportive housing arrangements is strongly consistent with the expectation that they would both become more popular with increasing age and associated frailties. Approximately ten percent of the elderly reside in shared housing arrangements. The participation in shared housing increases steadily and strongly from 6.8 percent for the youngest group to 32 percent for the oldest group. Supportive housing is less popular, with about five percent of all elderly households residing in these situations. However, participation grows steadily with age from 2.5 percent for the youngest group to 16.4 percent for the oldest group. It is also the case that many elderly persons live in housing environments receiving assistance from their families, which are not included in the definition of supported housing used in this paper.

While households living in 60 plus communities (with and without assistance) have virtually no resident children present, 65 percent of those residing in shared housing have some of their children resident in the housing. Essentially all of these resident children are 18 years old or older, and nearly half of them are married or living with a partner. Children are clearly a primary, but by no means the only, source of shared housing opportunities. Only shared housing has a sizable percentage of its households with both a full time working resident child and a full time working spouse/partner of that child (12.1 percent of the shared housing households). Approximately 11 percent of those residing in supported housing have a child resident with them, and 12 percent of those residing in conventional housing have a child present.

Gender differences exist in the living arrangements; women (based on the sex of the oldest elderly person) tend to select the non-conventional arrangements more than men (31.1

percent versus 17.0 percent). A simple comparison of the incidences of selecting non-conventional housing by age and sex indicates that the age disparity between men and women does not explain the gender difference, especially for shared housing and assisted living. Another contributing factor is the higher incidence of widowhood among women.

Similarly, there are racial/ethnic differences in living arrangements which may reflect differences in resources and in cultural traditions with respect to family care of the elderly. In general, blacks and Hispanics have a higher participation in shared living arrangements than do whites not of Hispanic origin (19.6 percent for blacks and 18.8 percent for Hispanics compared to 8.7 percent for non-Hispanic whites). Supported housing is also slightly favored by blacks and Hispanics (8.5 and 6.7 percent, respectively, compared with 5.2 percent for non-Hispanic whites). Hispanics seem to favor 60 plus communities without assistance compared with other races; 11.4 percent of the Hispanics can be found in these communities compared to only 4 to 6 percent of the other races.

Although there are regional variations in the living arrangements of the elderly, the differences are relatively small. (See Table 2.) The largest regional differential occurs in the South Atlantic and the Mountain states which have the highest share of their elderly residents residing in 60 plus communities without assistance with percentages of 10.6 and 11.9, respectively. Metropolitan areas have a higher percentage of elderly residents housed in one of the non-conventional housing types with 27 percent compared to 18 percent in the non-metropolitan areas housed in 60 plus communities with or without assistance, shared housing or supported housing arrangements. Of these, only the supported housing arrangement was more popular in the non-metropolitan areas with 6.4 percent of their elderly in this type of housing compared to 5.2 percent of elderly metropolitan residents.

Married couples (with spouse present) are most likely to reside in conventional housing types; 89.2 percent of these couples live in such housing. On the other hand, married persons with the spouse absent are the least likely to reside in conventional housing; 54.5 percent of these households live in conventional housing. The variations in housing types with marital status of the oldest elderly member of the household are summarized in Table 3. Divorced/separated, widowed and never married households are most likely to reside in shared housing (14.8, 15.3 and 15.0 percent, respectively). Supported housing also attracts a sizeable percentage of the never married elderly with 13.1 percent of them; in

addition, approximately 13 percent of elderly living with someone and of married elderly with spouse absent also reside in supported housing. These patterns accord with reasonable expectations; the presence of a spouse in married couples would be expected to reduce their likelihood of selecting one of the alternative housing types with assistance.

Housing Types and Need for Assistance

The primary reason elderly households seek alternative living arrangements is deteriorating health and the need for assistance with functions of daily living. The AHEAD data contain many approaches to measuring the need of the elderly persons for assistance. Studying housing adds an additional wrinkle to this measurement question, namely the formulation of household level measures of need. This section reviews various approaches to measurement of the need for assistance at the household level and their relationship to the housing types selected by elderly households. The presence of specific ailments has little to do with the choice of housing type. However, the need for assistance with activities of daily living is strongly related to the choice of housing type. Households needing assistance with activities of daily living are more likely to select one of the non-conventional housing types.

The first measure is the combined number of ADLs of elderly respondents in a household. The percent of households with at least two ADLs is much higher for the alternative housing types (37.4 percent) than for conventional housing (14.1 percent). Elderly restricted communities without assistance have the lowest incidence of elderly households with two or more ADLs at 23.5 percent. Somewhat surprisingly, assisted living communities have the next lowest among the alternative housing types with 26.3 percent of their households having two or more ADLs. Shared housing and supported housing have 39.4 and 56.1 percent, respectively, of their households with two or more ADLs.

Single person households may be more inclined to seek alternative housing even if there is not a current need for assistance with daily living activities. For these households, the age relationship seems to capture the potential for needing assistance when the elderly person does not yet indicate that he/she actually presently needs help with ADLs. Single person households are not equally distributed across housing types. While approximately 44 percent of the elderly households live alone, 88 percent of those living in assisted living communities, 66 percent of those living in unassisted 60 plus communities and 67 percent of those living in

supported housing live alone. By definition all of those living in shared housing live with someone.

Another measure of the household's need for assistance is whether all elderly members of the household have two or more ADLs. Application of this measure gives essentially the same results as the cumulative number of elderly ADLs in the household. For example, 36 and 44 percent of the households living in shared and supported housing, respectively, had all elderly members with two or more ADLs while 25 and 19 percent of those in assisted living and unassisted living 60 plus communities, respectively, had all elderly members with two or more ADLs. Only 6 percent of the households living in conventional housing have all elderly members with two or more ADLs.

Another feature of the need for assistance relates to the cognitive functioning of people. AHEAD gave the respondents a series of cognitive tests; one measure of performance on these tests is the TICS7 score which reflects the ability of respondents to count backwards, remember the names of items or people and know dates. When this is used as the measure of the need for assistance, the results again parallel those for the cumulative number of ADLs. Shared housing and supported housing have the highest incidences of elderly persons who have weak performances on TICS7 with 18 and 20 percent, respectively, of their residents scoring 7 or less out of the maximum score of 15 (higher scores signify higher cognition). Assisted living has 13 percent of its residents with scores of 7 or less, and unassisted elderly communities have only slightly less at 10 percent. Conventional housing is at 8 percent.

Although the incidence of need for assistance in assisted living is two to three times that in conventional housing, it is not that much more than found in unassisted living communities. This disparity is surprising because assisted housing is designed for persons with such needs and typically has the support services responsive to these needs on site. Unassisted elderly communities appear to have developed mechanisms for providing their needy residents with assistance nearly as well as the planned assisted living communities for the elderly. This paper does not have the information required to explain this pattern. However, it is not inconsistent with the individually oriented responses found in shared and supported housing alternatives.

The relationship between the number of ADLs and housing types is further summarized in Table 4. As one would expect, the percentage of households residing in conventional housing declines with increasing numbers of ADLs from 82.7 percent for elderly households without any ADLs to 39.6 percent for elderly households with five or more ADLs. Most of the decline appears as an increase in the utilization of shared housing which increases steadily from 6.7 percent for elderly households without ADLs to 28.7 percent for those with five or more ADLs. Participation in supported housing also generally increases with the number of ADLs, but the trend is somewhat discontinuous. A surprising result is the lack of any consistent increase in the utilization of assisted living communities.

Another measure of the need for assistance is the number of IADLs. The combined number of IADLs of each elderly respondent in the household was calculated, and its relationship to housing types is summarized in Table 5. The pattern is similar to that found for ADLs. The correlation between combined ADLs and combined IADLs is 0.68. The frequency of using conventional housing again declines from 83 percent for elderly households without any IADLs to 35.4 percent for those with five or more IADLs. Most of the decline is absorbed by the increase in the utilization of shared housing which rises from 6.7 percent for those elderly households without any IADLs to 38.0 percent for those with five or more IADLs. A similar, although less consistent, increase appears for supported housing. Once again, the surprising neutrality of assisted living communities appears.

It has been suggested that three of the ADLs capture all the essential variation in the need for assistance. These are difficulty with walking, dressing and bathing. (See Rodgers and Miller, 1997.) A measure based on this research has been constructed; it is the number of walking, dressing or bathing ADLs of the elderly respondents in the household. Table 6 presents the results for this measure of need. They are nearly identical to the results for the other two measures.

AHEAD also gathered information on the difficulty of performing several specific tasks such as walking several blocks or picking up a dime. Table 7 summarizes the relationship between the presence of these difficulties and the selection of living arrangements. In general, households with at least one elderly respondent having difficulty with any of these five tasks tend to select living arrangements that provide more support and assistance such as assisted living communities, shared housing and supported housing.

Supported housing has a particularly high presence of elderly needing assistance with these tasks. Three-quarters of the supported housing households have difficulty walking several blocks or lifting ten pounds, and two-thirds of them have difficulty climbing stairs or moving heavy objects. Relatively little difficulty is experienced with dexterity activities such as picking up a dime which presented a problem for only 10.9 percent of all elderly households and only rose to 23.4 percent for those residing in supported housing. Shared housing residents followed the supported housing residents with having difficulty with these tasks. Those residing in conventional housing, not surprisingly, had the least difficulty with these tasks.

The distribution of fifteen resident health conditions such as high blood pressure, heart condition, arthritis, vision and hearing across living arrangements is shown in Table 8. If any elderly respondent in a household reported one of the specified conditions the household was treated as having an elderly person with that condition. There is surprisingly little variation in the presence of any one of these health conditions with the choice of living arrangement. Although activities of daily living have a relationship with some of the chosen living arrangements, these specific and somewhat traditional ailments do not exhibit any strong patterns. Measures of depression and affective health also show no relationship with the choice of living arrangement; approximately 90 percent of the people with these difficulties are located in conventional housing.

Housing Types and Education, Income and Wealth

The alternative living arrangements, especially shared and supported housing, are more likely to be selected by elderly households with lower educational achievement and smaller net worth. Income appears to have a smaller effect on the choice of living arrangement than one might expect. Conventional housing is favored by households with higher education and higher net worth. The choice of an assisted living community is generally unaffected by education, and shows small declines in use as income or net worth increase.

Tables 9 and 10 present information on the education of the elderly and housing choices. Education is measured in terms of the number of years of school completed. The presence of two elderly respondents in some households is accounted for in two ways: Table

9 uses the education achievement of the oldest elderly respondent, and Table 10 uses the highest education achievement of the elderly respondents. Both approaches tell a similar story. Preference for conventional housing increases regularly with education from 58.1 percent of those with elementary school only to 86 percent of those with more than college education. Shared housing is most common among those with less than high school education and declines steadily with education from 20.2 percent for those with only elementary school to 4.6 percent of those with more than college. Supported housing and living in a 60 plus community without assistance also decline as education increases. Residing in an assisted living community is generally unaffected by education with a small increase in its utilization among college graduates; an increase from 2.8 percent of those who have not graduated from college to 4.2 percent for those who have completed college only and 3.2 percent for those with more than college.

The effect of income on the elderly's choice of living arrangements is less pronounced than one might expect. (See Table 11.) Although one might expect the choice of conventional housing to increase with income, it does so only moderately. Households with incomes under \$15,000 choose conventional housing approximately 72 percent of the time while those with higher incomes choose it about 77 percent of the time. However, those with incomes between \$50,000 and \$75,000 also choose it about 73 percent of the time, a figure near that for the lower income households. Other housing types have a more pronounced income effect.

Shared housing becomes increasingly popular as income rises, with a slight decrease for those of the highest incomes (greater than or equal to \$75,000). However, shared housing is unusual because it always involves a non-elderly member of the household. As a result, households living in shared housing receive a substantial part of their income from these non-elderly household members, approximately one-half, on average, of household income comes from these non-elderly household members. It is this feature that accounts for the different housing choice and income relationship exhibited in shared housing.

The other housing types (supported housing, and living in 60 plus communities with and without assistance) show a general decline in popularity as income rises, although in each case the declines are modest.

Do any of these housing situations have income limitations applicable to them? According to the respondents, approximately 34 percent of the units in assisted living in 60 plus communities and about 72 percent of the units in the 60 plus communities without assistance require a limited income to live there. The other living arrangements have little income limitations with 1.1, 2.2 and 1.6 percent of the units in shared, supported or conventional arrangements, respectively, requiring a limited income to live there. The income limitations are not delineated in the AHEAD survey, but they probably involve limitations that accompany government assistance programs such as the Section 202 program for elderly housing or public housing for the elderly. When housing units with income limitations are eliminated, the distributions of income by housing types remain essentially unchanged. The percentages of households in 60 plus communities with incomes below \$10,000 declines a small amount and those in the other housing types increases by a small amount. The overall pattern and relationship is unaffected.

Less than two percent of the households have negative net worth, but about 23 percent have low net worth (under \$25,000). About 7 percent have a net worth over \$500,000, and another 15 percent have a net worth between \$225,000 and \$500,000. Elderly households with higher net worth trend towards the conventional housing type. Nearly ninety percent of the elderly households with \$225,000 or more of net worth are in conventional housing. (See Table 12.) (Net worth includes the value of owner occupied housing reduced by the outstanding balances of mortgages secured by that housing.) As net worth declines the fraction of households choosing one of the alternative living arrangements increases, especially the fraction selecting shared housing or 60 plus communities without assistance. Approximately a fifth of the households with net worth under \$25,000 select each of these two living arrangements, which together make up nearly 40 percent of these low net worth households.

The popularity of the shared arrangement over the supported housing alternative reflects the likelihood that the supported housing often requires an expenditure of funds to obtain the services. Many of the unassisted 60 plus communities involve housing that has an income limitation implying the availability of some governmental support, and the popularity of this alternative among low net worth households reflects this factor as well as the lower costs associated with the absence of support services. The presence of income limited

housing units raises the percentage of units in unassisted 60 plus communities with net worth below \$25,000 from 8.4 to 15.2. The effect of the income limitation is small for assisted living communities with the percent under \$25,000 net worth only increasing from 4.8 to 6.2 due to the limitation. On the other hand, a large percentage (51 percent, or 42 percent if the income limited units are excluded) of the households in assisted living communities have low net worth (between zero and \$25,000), which, together with their generally high cost (see below), suggests some families may be using up their net worth to live in these communities or that relatives are financially underwriting occupancy.

Housing Characteristics

A variety of information about the characteristics of housing is contained in AHEAD. For example, there is information on the type of structure, a self evaluation of the condition of the housing unit, a self evaluation of the neighborhood's safety, the number of rooms and the presence of various physical aids such as call devices, grab bars, railings and ramps.

Conventional housing is generally in a one story single-family owner-occupied structure that has more space than any of the other housing types. Assisted living in 60 plus communities typically has the smallest number of rooms found in the various housing types and is rented by the occupant in multi-story structures that are described as apartments/condominiums. Shared housing is mostly found in single-family one-story structures and frequently involves an arrangement that the elderly household describes as being neither owning nor rental. Unfortunately, the questionnaire does not probe for information on this other type of arrangement. Supported housing is predominantly in one-story single family structures and usually involves ownership. Special features designed to respond to needs for assistance are most common in the assisted living communities.

The living arrangements of the elderly occur with different frequency in different structure types. Table 13 summarizes the information on structure type. Approximately 69 percent of all elderly households reside in single family houses followed by approximately 19 percent in apartments/condominiums, 6.5 percent in mobile homes, 4.3 percent in duplexes, 1.1 percent in townhouses and a tiny fraction in other types of structures. This distribution is comparable to that found in the entire population where 66.3 percent of the units are single

family and 6.5 percent are mobile homes (Statistical Abstract of the United States, 1998, Table 1211).

Nearly all of the elderly households residing in assisted living communities are in apartments/condominiums (95.4 percent). Only 5.0 percent of the households living in assisted living communities are owners of their housing. (See Table 14.) Elderly households residing in 60 plus communities without assistance are mostly found in apartments/condominiums (66.0 percent) or mobile homes (21.1 percent), with approximately 10 percent in single family houses. While about 12 percent of the elderly living in apartments/condominiums in 60 plus communities without assistance own their housing, nearly all those living in such communities in single family homes or mobile homes own their housing (91 percent). The only living arrangement with a large representation in mobile homes are the unassisted 60 plus communities, probably a reflection of the fairly large use of this structure type in early elderly only communities in the South and West.

Single family houses are the most popular structure type for shared housing, supported housing and conventional housing (80.8, 66.4 and 75.7 percent, respectively). The next most popular structure type for these three living arrangements is apartments/condominiums (9.0, 20.1 and 13.0 percent, respectively). There are some substantial differences in tenure across these three living arrangements. In particular, 45.7 percent of those households in single family shared housing own their houses compared to 87.5 percent of those in single family supported housing and 91.9 percent of those in single family conventional housing. In the case of those living in apartments/condominiums, 10.8 percent of those in shared housing and in supported housing own their housing compared to 28.6 percent of those in conventional housing.

Although duplexes and townhouses account for a small percentage of structure types, duplexes are relatively popular among those living in supported housing, and townhouses are relatively popular among those choosing shared housing. In fact, 9.2 percent of those living in duplexes are in supported housing, and 22.2 percent of those living in townhouses are in shared housing. The largest share of each structure type falls into the conventional housing arrangement (ranging from 51.6 percent for apartments/condominiums to 82.0 percent for single family houses).

In general, elderly households living in conventional or supported housing are most likely to own their home, with 81.6 and 68.3 percent owning, respectively. Those living in assisted living communities are least likely to own their home with only 8.3 percent owning. Approximately 37 percent of those residing in 60 plus communities without assistance own their homes, and about 43 percent of those in shared housing own their homes. Only 15 percent of those in shared housing rent their housing. The striking difference lies in the large fraction (41.8 percent) of elderly households living in shared housing that reported that they neither owned nor rented, but had some other arrangement. Approximately 60 percent of the elderly households living in 60 plus communities without assistance rent their housing.

The amount of living area varies with the type of living arrangement. Assisted living communities have the smallest units, and conventional and shared living arrangements have the largest units. While 16.6 and 23.2 percent of units of assisted living communities have only one or two bedrooms, respectively, less than one percent of conventional housing has two or fewer rooms. See Table 15. The most common sized assisted living unit has three rooms (43.1 percent). Although the three room unit is also the most common sized unit in 60 plus communities without assistance, less than 11 percent of such units have fewer than three rooms and nearly twenty percent have five or more rooms. Shared housing and conventional living arrangements have similar large units: 53.2 percent of shared housing units have six or more rooms, and 46.4 percent of conventional housing has six or more rooms. Supported housing units have slightly smaller units than shared housing with 12.1 percent of the units having three rooms.

Assisted living communities are generally in buildings with three or more stories (66.1 percent). (See Table 16) Given that these units are generally small (82.9 percent having three or fewer rooms), this type of arrangement is typically found in a multi-story apartment building or institutional-like setting. Residents in 60 plus communities without assistance are much less likely to live in multiple story buildings with nearly half living in one-story buildings and 27.7 percent living in buildings with three or more stories. Over half of all the other types of living arrangements are in one story buildings, and less than ten percent of the shared housing and conventional housing arrangements are in buildings with three or more stories with about 15 percent of the supported housing in these taller buildings.

Nearly all the units in 60 plus communities (with or without assistance) are located on one level of living (97.4 and 99.0 percent for those with and without assistance, respectively). Approximately four-fifths of the shared housing and conventional housing arrangements involve one level living, and 87 percent of the supported housing units are on one level. Even when there is more than one level of living, there is nearly always a bathroom on each level. This is true for all 60 plus communities with assistance and virtually all of those without assistance (99.3 percent). Shared, supported and conventional housing have a bathroom on each level for 93.2, 95.0 and 91.5 percent of their units, respectively.

Since the need for assistance in activities of daily living increases with age, the presence of certain special features designed to accommodate some of these needs is summarized in Table 17. These features are call devices, grab bars in bathrooms, modifications to accommodate a wheelchair, railings and ramps. As one might expect, these features are most common in assisted living 60 plus communities: 74.3 percent of the units have call devices; 81.6 percent have bathroom bars; 60.2 percent have wheel chair modifications; 38.7 percent have railings, and 55.1 percent have ramps. Given the intended design of assisted living, it is surprising that less than all such units have call devices or bathroom grab bars, or are wheel chair compatible. The lower incidence of ramps is less easily interpreted because good design of entry ways and paths of travel can achieve full accessibility without ramps. Railings are similarly ambiguous. Although these features are also fairly common in 60 plus communities without assistance, it would seem to make good sense to include them in the case of wheel chair mobility, or, in the case of call devices, to at least include the wiring system even if the unit specific device is only installed when required. Interestingly, supported housing has a reasonable number of these features, ranging from 13 percent of the units having ramps to 41 percent having bathroom grab bars. Shared housing also has more of these features than does conventional housing. Since supported housing, as well as shared housing, are individually oriented as opposed to an orientation to a wide spectrum of potential occupants, it is possible that the units are more individually tailored through renovation and alteration to the needs of the occupants.

The presence of special features also shows a relationship to the need for such features. Households with at least one of the walking, dressing or bathing ADLs are more likely to have a call device (17.5 percent versus 7.3 percent), grab bars in the bathroom (43.8

percent versus 20.2 percent), wheelchair modifications (18.3 percent versus 10.0 percent), railings (16.8 percent versus 6.9 percent), and ramps (13.4 percent versus 5.7 percent). Some of these show a strong relationship with the increasing presence of these needs. For example, the presence of grab bars, which should be related to mobility difficulties reflected in the walking, dressing or bathing ADLs, increases from 20.2 percent when there are no walking, dressing or bathing ADLs, to 38.0 percent when there is one of these difficulties to 48.6 percent when there is two of them and 50.8 percent when there is three or more of them. Similarly, the presence of ramps rises steadily from 5.7 percent when there are none of these difficulties to 9.9 percent when there is one such difficulty, 13.6 percent when there are two such difficulties and 20.1 percent when there are three or more of them.

Resident Satisfaction

In general the residents are satisfied with the condition of their home and with their neighborhood. AHEAD respondents were asked to rate the condition of their housing as excellent, very good, good, fair or poor. The results are summarized in Table 18. Very few households rated their housing poor (from 0.2 to 3.9 percent). In addition, only ten percent of the households gave a fair rating. In general, all residents are quite pleased with their housing; 87.3 percent rated their housing condition as good or better.

Residents of assisted living communities rated their housing higher than those of any of the other living arrangements: 47.8 percent rated their housing excellent and 28.5 percent rated it as very good. Residents of 60 plus communities without assistance rated their housing almost equally as high with 34.0 percent giving an excellent and 38.4 percent giving a very good; the main difference is a smaller percentage with an excellent rating and a larger, nearly offsetting, percentage with a very good rating. The lowest ratings were given by residents of supported housing arrangements with 14.1 and 3.9 percent giving a fair or poor rating, respectively. In general, the differences across the shared, supported and conventional housing in condition ratings are small.

AHEAD also asked each household to rate the safety of the neighborhood. These responses are summarized in Table 19. Nearly nine out of ten households reported that the safety of their neighborhood was good or better and less than three percent reported it to be poor. Although residents of assisted living communities gave their neighborhoods the highest

safety rating of any of the living arrangements (34.6 percent as excellent and 27.1 percent as very good, or 61.7 percent giving one of these two scores), they also gave them one of the highest poor ratings (5.9 percent). Residents of 60 plus communities without assistance also highly rated the safety of their neighborhoods with 62.2 percent giving a very good or excellent score. However, they also gave their neighborhoods the second lowest ratings of any of the living arrangements with 12.0 percent responding with a fair rating and 3.7 percent giving a poor rating. The worst rating on the safety of the neighborhood was given by the residents of supported housing with 16.8 percent giving a fair or poor rating.

Mobility

Elderly households are less mobile than younger households; only about three to five percent of the elderly move annually. Residents of the assisted and unassisted 60 plus communities and of shared housing are much more likely to have moved recently than are the residents of supported or conventional housing. However, even among the elderly movers conventional housing is the most common outcome.

Nearly three-quarters (72.1 percent) of the AHEAD households have lived in their current residence for more than ten years. The fraction living in the same house for more than ten years declines only slightly for the two oldest groups; the fractions of households with the oldest elderly respondent aged 85-89 and 90 or older that have been living in the same place for more than ten years are 69.1 and 66.8 percent, respectively. This information suggests that, on average over a ten year period, only about three percent of the elderly move annually. Responses to the Current Population Survey also indicate a low mobility for the elderly, albeit a somewhat higher rate than that found in AHEAD. (AHEAD is based on households while the CPS is based on population, which may account for the difference.) The CPS data for 1995 indicate that about five percent of the elderly persons moved in the last year compared with about 16 percent of the population in general (US Census Bureau, 1998).

The AHEAD respondents were asked what the chances were that they would move in the next five years. The mean value of this response was approximately 17 percent; however, two-thirds said there was no chance they would move in the next five years. Approximately 25 percent of the respondents stated they were more than twenty percent likely to move in the next five years. Only about five percent stated that they were certain of moving in the next

five years. The percent stating that there was no chance of their moving in the next five years increased steadily with age from 62.7 percent for the youngest group (70-74 year old persons) to 76.5 percent for the 90-plus persons.

The persons stating they were more than twenty percent likely to move in the next five years were asked an additional set of questions about the type of move and possible plans they had already made. Four types of moves were identified: buy or rent; move in with another person; nursing home; and retirement home/community. The results are summarized in Table 20. The youngest group expected to “buy or rent” (65.9 percent) while the oldest group expected to move to a nursing home (28.8 percent) or to a retirement home or community (38.4 percent). Overall, about nine percent expected to move in with another person, with 80-84 year olds at 16 percent and over 90 year olds at 14.4 percent. Although the expectations for a nursing home or retirement home/community both increase with age, a large percentage of the youngest group expected to move to a retirement home or community (23.6 percent). In general, women were more likely than men to expect to move into a retirement home/community (30.9 versus 20.9 percent), nursing home (8.2 versus 3.4 percent) or in with another person (10.6 versus 6.5 percent). These gender differences are present at each of the age levels.

When the persons more than twenty percent likely to move in the next five years were asked whether they would try to live with or closer to one of their children, 50.7 percent replied affirmatively with slightly more women than men replying affirmatively (52.3 compared to 48.2 percent). The affirmative responses were highest for the 80-84 year olds (61.3 percent) and lowest for the 90-plus persons (35.5 percent), and between 46 and 50 percent were in the affirmative for the other three age groups. The large affirmative response for the 80-84 year olds is largely due to the high affirmative response of women in this age group (64.6 compared to 54.8 percent for the men). Approximately 86 percent of the elderly households have a non-resident child that is at least 18 years old. Many of these live nearby; about 59 percent of the elderly households have a non-resident child living within ten miles of their home.

Those persons that did not respond affirmatively to the question of moving to live with or closer to their children were asked an additional question about whether they had in some way reserved a spot in a nursing home or retirement home. Only 8.7 percent of these

persons (7.3 percent of the men and 9.2 percent of the women) had made any such plans for a nursing or retirement home; there is no systematic variation with age. This suggests very little long range planning for nursing home or retirement home moves. Although a significant share of all elderly age groups contemplate one of these moves, the decision around a move to a nursing home or retirement home/community seems to await an event that crystallizes action.

Residents of 60 plus communities are more likely than the residents of the other arrangements to have moved recently. Four-fifths of those residing in assisted living communities moved within the last ten years, and 63 percent of those in 60 plus communities without assistance have moved within the last ten years. Residents of shared housing are also likely to be movers with approximately 44 percent of them having moved within the last ten years. Supported and conventional arrangements are similar with about 20 percent having moved in the last ten years. Supported housing would be expected to resemble conventional housing on mobility because it involves the provision of services in place. On the other hand, most of the movers (i.e., those who have not been in their current house for more than ten years) still selected conventional housing. Approximately 57 percent of the movers live in conventional housing; 20 percent of them reside in supported housing; 16 percent reside in shared housing; 15 percent reside in unassisted 60 plus communities, and only 8 percent reside in assisted living communities. Although movers are the primary source of residents of assisted living communities, those communities only draw a small fraction of the movers.

Cost of Housing

As one would expect, the living arrangement with the most service, an assisted living community which lacks a limitation on income, is the most expensive. The least expensive arrangements are those with income limitations. Shared housing is the next most expensive alternative, but it is much less expensive than assisted living. Owners generally face lower out of pocket costs than do renters. Elderly households residing in assisted living communities pay a very high percentage of their income towards the cost of their housing with three quarters paying over 50 percent of their income. Shared housing and conventional housing have among the lowest cost to income ratios. Supported housing has a slightly

higher cost to income ratio with 17 percent paying over 50 percent of their income for out of pocket housing costs.

The out of pocket housing expense can be calculated from the information gathered in AHEAD. The monthly out of pocket housing cost is equal to the sum of the monthly values of a variety of cost components, some of which are applicable only to owners and some of which are only applicable to renters. The components are: real estate taxes, house insurance, mortgage payments (including first, second or other loans secured by the house, as applicable), condominium or cooperative fees, association fees, and rent (including utilities). Although the respondents were asked if services in assisted living communities required an extra payment, the amount of the payment for those responding in the affirmative was not provided. Approximately two-thirds of those in assisted living communities reported paying extra for at least one of the following: meals, nursing, or help with bathing, dressing or eating. Some of these services may be included in the basic charges for some respondents. Those paying extra costs for these services are purchasing them as follows: 76 percent are purchasing meals; 83 percent are purchasing help with bathing, dressing or eating; and 67 percent are purchasing nursing care services.

The mean and median values of out of pocket housing costs are summarized in Table 21. The 60 plus community living arrangements have been divided into those with and without an income limitation to live there based on responses to the question: "Are you required to have a limited income to live here?" The most expensive arrangement is an assisted living community without any income limitation for occupancy; the mean monthly cost is \$1,461 with a median of \$1,188 per month. Those assisted environments that provide more assistance are more costly; for example, those that provide on-site nursing, meals and other help cost an average of \$2,357 per month (a median of \$1,345 per month) compared to an average cost of \$1,397 per month (a median of \$1,160 per month) for those that provide on-site nursing and meals, but no other help. Another example is environments providing meals and other help without on-site nursing, which costs \$1,630 per month on average (a median of \$1,000 per month).

The next most expensive, but much less expensive than the assisted living, is shared housing with a mean monthly cost of \$442 and a median of \$285. The least expensive option is a 60 plus community without assistance but with an income limitation with a mean monthly

cost of \$201 and a median of \$162. It is followed closely by 60 plus communities with assistance and with an income limitation, which have a mean monthly cost of \$273 and a median of \$191. The 60 plus communities without assistance and without an income limitation are the third least expensive with a mean monthly cost of \$308 and a median of \$210. Supportive housing is less expensive than conventional housing with a mean monthly cost of \$328 and a median of \$250. (However, the cost of the supportive services are not included in these figures.) Conventional housing has a mean monthly cost of \$351 with a median of \$263. Although the elderly's choice of living arrangement is not closely related to their income, the choice is affected by net worth. Those with lower net worth have a tendency to select one of the lower cost alternatives.

Many of the elderly receive help and some of this help is purchased. Approximately 33 percent of the households reported having helpers. Only about one-fifth of these households reported paying for the helpers' assistance. As a result only 5.66 percent of all households receive help from paid helpers. Ninety-eight percent of those receiving paid help have at least one ADL or one IADL. Surprisingly, these paid helpers are not concentrated in the supported housing arrangement; 52 percent of these households have paid helpers. The other 48 percent of supported housing households appear to be receiving free services from community support groups, or the respondent is unaware of payments being made through a former employer's health plan or some insurance policy. Paid helpers in supported housing are paid an average of \$425 per month. A sizable share (22.5 percent) of those living in assisted living communities also have paid helpers, which are paid an average of \$1,290 per month. The higher cost of helpers for those receiving paid help in the assisted living units probably reflects the higher amount of care needed by these residents and possibly a higher level of service than provided in the other arrangements. Approximately 11 percent of the shared housing households and 10 percent of the households living in 60 plus communities without assistance also have paid helpers who are paid an average of \$651 and \$117 per month, respectively.

The out of pocket costs of the various living arrangements are generally lower for owners than renters. (See Table 22.) The one exception is shared housing where the owner cost is slightly higher than the renter cost (\$443 compared to \$439 per year). The renter costs reflect the cost of capital, while the owners' cost of capital is largely omitted because they

have very low or no indebtedness on their properties. Nearly 85 percent of the owners have no debt. One of the benefits of owning for elderly people is the lower out of pocket costs because of the paid up capital. Although one can calculate the opportunity cost of the sunken capital, that approach does not give adequate treatment to the security and psychological benefit derived from control of housing costs during a period when the person has reduced or no earning power to counteract the vicissitudes of the economy.

The ratios of the out of pocket costs to household income is summarized in Table 23 for each of the housing types. Approximately three-quarters of the elderly have cost to income ratios of 30 percent or less with about ten percent having ratios of 30 to 40 percent, five percent having ratios of 40 to 50 percent and ten percent having ratios of more than 50 percent. Elderly households living in assisted living communities without income limitations have the highest cost to income ratios; three-quarters of them spend more than half their income on their housing and related support services. Those living in income limited assisted living communities fare much better with 15 percent spending over half their income on these costs. Supported housing also deviates substantially from the average with about 17 percent of its elderly households spending over half their income for their housing costs. Owners have lower cost to income ratios than renters. Eighteen percent of owners spend more than 30 percent of their income on housing and only 6.5 percent of them spend over 50 percent of their income on housing. Fifty-two percent of renters spend over 30 percent, and 23 percent of renters spend over 50 percent, of their income on housing.

Implications for Market Analysis

Market analysis of the demand for assisted living communities has suffered from lack of data on the utilization of this living arrangement by the population. Although there is a wide variety of information on who resides in assisted living communities, this study is the first to provide information on the population incidence of this living arrangement.

In the absence of such data, market analysts have made various assumptions when estimating market demand. A fairly typical approach involves the following steps: a) estimate the number of over 75 year old households above a minimum income (such as \$35,000) by age (usually in three age categories: 75-79; 80-84, and 85 and older); b) transform this distribution into those needing assistance with at least one Activity of Daily

Living using the incidence of such ADLs for the same age categories; c) transform the total estimated number of over 75 households satisfying the income requirement and having at least one ADL into the number that are expected to be living alone and those living otherwise using the incidence of such living situations; d) transform the two resulting numbers into the expected market for assisted living by making assumptions about the likelihood of each category to demand assisted living (usually assuming that all those living alone are candidates and that only about 28 percent of those living with someone are candidates). After obtaining this estimate of the demand, the analysts then examine the supply available in each market area.

Although these market analyses are typically conducted for the geographical area around a proposed facility, they also can be implemented at the national level. For example, in 1996 elderly households with at least \$35,000 of income were distributed as follows: 881,200 households 75-79 years old, 414,765 aged 80-84 and 228,997 aged 85 or older. Using the incidence of at least one ADL from the AHEAD survey for each of these age categories (26.8% for 75-79 year olds, 34.8% for 80-84 year olds and 59.5% for the 85 and older group) produces an estimate of 516,699 households over the age of 75 with at least \$35,000 of income and needing assistance with at least one ADL. Using the AHEAD survey distribution of living alone (56.5%), this estimate translates into an estimated 291,935 of these households living alone. Application of the assumptions about the likelihood of selecting assisted living produces an estimate of 354,869 candidate households. When this number is compared to the number of households over the age of 75 of all incomes (9,577,897), the methodology of the market analysts results in an estimate that 3.71 percent of these households are assisted living candidates. The AHEAD survey provides a direct test of the accuracy of this methodology by providing information on the actual utilization of assisted living by the population. Based on the AHEAD survey, the fraction of elderly households 75 or older that live in assisted living is 3.76 percent, very close to the estimate generated by the indirect methodology. Investors in and lenders to the assisted living industry can take comfort from the closeness of the indirect methodology's prediction to the actual population estimate. It suggests that the local market studies are well founded. Of course, there are other factors that also enter into a local market analysis.

The most striking market feature is that the popularized market area, assisted living communities, is a very small fraction of the elderly population. The challenge is to develop a cost effective system to deliver support services to the elderly in their homes. The information presented in this paper suggests that this is a large market.

Summary

Three-quarters of the elderly live in conventional housing, which is consistent with surveys showing that the elderly strongly desire to age in their own homes. Very few of the elderly reside in assisted living communities designed for the elderly. Conventional housing is even the choice of the majority of those elderly who have moved recently.

Living arrangements of the elderly are categorized into five mutually exclusive types: assisted living in a 60 plus community; 60 plus communities without assistance; shared housing; supported housing, and conventional housing. Shared housing involves situations in which either the elderly person moved in with a non-elderly person or a non-elderly person moved in with an elderly person for the purpose of assisting the elderly person. Supported housing involves the elderly receiving assistance from a non-family member or from an organization.

About ten percent of the elderly live in shared housing, with about seven percent in 60 plus communities without assistance, five percent in supported housing and three percent in assisted living communities.

Assisted living communities for the elderly are more likely to be occupied by the oldest elderly (those over 84) and the widowed. Although they are more likely to be occupied by households needing assistance with daily activities, the utilization of assisted living is surprisingly low relative to other alternatives and unaffected by an increase in the number daily living activities requiring assistance. Elderly living in assisted living communities seem to devote most of their resources to paying for this housing choice, which is the most costly housing type. These communities are typically in multi-story buildings that are described as apartments/condominiums, have the smallest amount of space and are rented as opposed to owned by the residents.

An analysis of the market projections used in evaluating proposed assisted living communities indicates that the prevalent methodology is quite accurate.

Shared housing is favored by older elderly households who are widowed, divorced/separated or never married, need assistance with activities of daily living and have limited resources. Shared housing use declines as the education and net worth of elderly households increases. Two-thirds of the elderly households living in shared housing have an adult child resident in the housing. Shared housing typically are in one-story single family houses and are reported as being neither owned nor rented. Shared housing appears to be a reasonably economical housing type having the lowest ratio of out of pocket costs to income.

Utilization of supported housing also increases with age and the need for assistance with activities of daily living and declines with rising educational achievement and net worth. It is the least costly of the alternatives to conventional housing, but has a cost to income ratio that exceeds that for shared housing. It is most frequently located in one-story single family structures; however a sizeable percentage of these units are in apartments/condominiums.

Conventional housing dominates in all age groups although shared housing is a close second for the oldest elderly (over 90 years), especially for married households with the spouse present. Its use rises with education and net worth and declines with age and as the need for assistance with activities of daily living increases. It usually involves one-story single family structures that are owner occupied and has the most space of any of the alternatives. Conventional housing is a very reasonable choice with a low out of pocket cost and a low ratio of cost to income.

The following paragraphs give a summary of the variation in choice of living arrangement by each of several household and structure characteristics.

The fraction living in conventional housing declines with age from 84 percent for the 70-74 year olds to 38 percent for the oldest group. Most of the elderly leaving conventional housing gravitate towards shared or supported housing as they age. Selection of shared housing increases from 7 percent for 70-74 year olds to 32 percent for the oldest group, and supported housing rises from three percent to 16 percent. There appears to be little interest in assisted living communities until the elderly are over 85 years old when 7-10 percent select this living arrangement. Living in 60 plus communities without assistance rises from five percent for the 70-74 year olds to eight percent for the 80-89 year olds and then declines to four percent for the oldest group.

Married with spouse present elderly households are very likely to select conventional housing; about nine out of ten of these households are in this type of living arrangement. Divorced or separated households are found frequently in unassisted 60 plus communities and in shared housing. Widows and never married households are found in shared housing. The never married also show up more than typically in supported housing, as do those who are married with spouse absent. The latter group also is found in shared housing in above average representation.

Health conditions of the elderly affect their selection of living arrangements. Conventional housing declines in importance as the number of ADLs or IADLs increase from 83 percent to around 37 percent. The most consistent and the largest gainer is shared housing which rises from seven percent to 29 and 38 percent for ADLs and IADLs, respectively. Supported housing also shows a fairly consistent increase as the number of ADLs or IADLs increase. Interestingly, assisted living communities do not show the type of increase one might have expected; it rises from around two percent with no ADLs or IADLs to about five percent for three ADLs or IADLs and then retreats to two to three percent for five or more ADLs or IADLs. Elderly having difficulty with walking several blocks, climbing stairs, moving heavy objects, lifting ten pounds or picking up a dime tend to select supported housing far more than the average elderly household and to select shared housing followed by assisted living communities more than the typical elderly household.

Elderly with higher education are more likely to favor conventional housing. Those with less than high school tend to be over represented in shared housing. The other living arrangements show little variation with education. Income has surprisingly little impact on the selection of living arrangements. However, education may be acting as a proxy for permanent income as a predictor of owning a home and having the resources to support it, whereas current income is probably an inadequate indicator of such decisions. Lower income elderly households favor supported housing, but shared housing is increasingly favored as income rises (including the income of non-elderly household members) with about one percent of those with incomes under \$5,000 selecting it and about 15-20 percent of those with incomes over \$50,000 making this selection. The most common selection for all income groups is conventional housing with nearly three-quarters or more of all income categories

selecting it as a living arrangement. Unassisted living in 60 plus communities is also relatively popular among elderly households with incomes under \$10,000.

Households with lower net worth are more likely to select one of the alternative housing types, especially shared housing or 60 plus communities without assistance.

Nearly all of the assisted living communities are in apartment/condominium buildings, and two-thirds of the unassisted 60 plus communities are also in apartment/condominium buildings. Twenty percent of the unassisted 60 plus communities involve mobile homes. Over 80 percent of shared housing and about 76 percent of conventional housing are in single family houses. About 13 percent of conventional housing is in apartment/condominium buildings. Two-thirds of supported housing is in single family houses and another 20 percent is in apartment/condominium buildings.

Overall, approximately 72 percent of the housing units are owner occupied with 19 percent rented and nine percent in an other (neither rent nor own) category. The largest presence in the other category is for shared housing, which has 42 percent of its units in this category. This probably reflects the situation of the elderly neither renting nor owning but having some other agreement with respect to their residence in these units; in many cases, it may involve a relationship with one of their children. Assisted living communities are mostly rental (about 80 percent) with only 8 percent owner occupied and the rest falling into the other category. Unassisted 60 plus communities are about one-third owner occupied and two-thirds rented.

In general, 60 plus communities have small units; 80 percent of assisted units have three or fewer rooms, and 43 percent of the unassisted units have three or fewer rooms. Shared and conventional housing are similar in size with 45-50 percent having six or more rooms. Supported housing is larger than the 60 plus communities but a little smaller than the shared or conventional units. Special features such as call devices are most frequently found in assisted living communities. The elderly are generally satisfied with the condition of their housing and with the safety of their neighborhood.

Some of the 60 plus communities have income limitations on residency. In analyzing the costs of different living arrangements, the 60 plus communities are separated by whether or not they have income limitations. The most expensive living arrangement is assisted living in a 60 plus community without an income limitation, which averaged a monthly out of

pocket cost of \$1,461. The next most expensive was shared housing at an average monthly cost of \$442 followed by conventional housing at \$351 and supported housing at \$328. Unassisted 60 plus communities without an income limitation cost an average of \$308 per month. Assisted and unassisted 60 plus communities with income limitations cost \$273 and \$201 monthly, respectively. These figures do not reflect the cost of purchased supported services that are not included in the housing costs. Only about six percent of households receive help from paid helpers, and these are concentrated in the supported housing arrangement. About half of households in supported housing have paid helpers who are paid an average of \$425 monthly. In addition, about 22 percent of those living in assisted living communities have paid helpers who are paid an average of \$1,290 monthly. With the exception of shared housing, the out of pocket cost of owner occupied housing is less than that of rented housing.

Approximately one-quarter of the elderly spend more than 30 percent of their income for the out of pocket costs of housing and related support services. Those residing in assisted living communities without income limitations have the highest cost burdens with three-quarters spending over half their income for housing and support services. Owners have lower cost to income ratios than renters; 18 percent of owners compared with 52 percent of renters spend more than 30 percent of their income on housing.

References

- American Association of Retired Persons, Understanding Senior Housing, September 1996, Figure A1.
- Anikeeff, Michael A., and Glenn R. Mueller, eds. Seniors Housing. Dordrecht: Kluwer, 1998.
- Barton, Linda J., “A Shoulder To Lean On: Assisted Living in the U. S.,” American Demographics (July 1997), pp. 45-51.
- Bernheim, B. Douglas, Jonathan Skinner and Steven Weinberg, “What Accounts for the Variation in Retirement Wealth Among US Households?” NBER Working Paper No. 6227 (October 12997).
- Burglass, Karen, “The Business of Eldercare,” American Demographics (September 1989), pp. 32-39.
- Costa, Dora L., “A House of Her Own: Old Age Assistance and Living Arrangements of Older Non-married Women,” NBER Working Paper No. 6217 (October 1997).
- Crystal, Stephen, and Pearl Beck, “A Room of One’s Own: The SRO and the Single Elderly,” The Gerontologist (1992), Vol. 32(5), pp. 684-692.
- Easterlin, Richard A., Christine M. Schaeffer and Diane J. Macunovich, “Will the Baby Boomers Be Less Well Off Than Their Parents? Income, Wealth and Family Circumstances Over the Life Cycle in the United States,” Population and Development Review (September 1993), vol. 19(3), pp. 497-521.
- Edelstein, Robert H., and Allan J. Lacayo, “Forecasting Seniors Housing Decisions” in Michael A. Anikeeff and Glenn R. Mueller, eds. Seniors Housing. Dordrecht: Kluwer, 1998.
- Fitzgerald, John F., David M. Smith, Douglas K. Martin, Jay A. Freedman, and Fredric D. Wolinsky, “Replication of the Multidimensionality of Activities of Daily Living,” Journal of Gerontology: Social Sciences (1993), Vol. 48(1), pp. S28-S31.
- Folts, W. Edward, and Dale E. Yeats, eds. Housing and the Aging Population. New York: Garland Publishing, Inc., 1994.
- Herzog, A. Regula, and Robert B. Wallace, “Measures of Cognitive Functioning in the AHEAD Study,” Journal of Gerontology: Psychology and Social Sciences, 1997, vol. 52B (Special Issue), pp. 37-48.
- Jaffe, Dale J., ed. Shared Housing for the Elderly. New York: Greenwood Press, 1989.

- Kunkel, Suzanne R., and Robert A. Applebaum, "Estimating the Prevalence of Long-Term Disability for an Aging Society," Journal of Gerontology - Social Sciences, 1992, vol. 47, no. 5, pp. S253-S260.
- Lawton, M. Powell, and Sally L. Hoover. Community Housing Choices for Older Americans. New York: Springer, 1981.
- Manton, Kenneth G., Larry Corder, and Eric Stallard, "Changes in the Use of Personal Assistance and Special Equipment from 1982 to 1989: Results from the 1982 and 1989 NLTCs," The Gerontologist (1993), Vol. 33(2), pp. 168-176.
- Moore, James F., and Olivia S. Mitchell, "Projected Retirement Wealth and Savings Adequacy in the Health and Retirement Study," NBER Working Paper No. 6240 (October 1997).
- National Center for Health Statistics, Advance Data No 289, July 2, 1997.
- Pitkin, John R., "Housing Consumption of the Elderly: A Cohort Economic Model" in Dowell Myers, ed. Housing Demography: Linking Demographic Structures and Housing Markets. Madison: University of Wisconsin Press, 1990. Pp. 174-199.
- Pynoos, Jon, and Phoebe S. Liebig, eds. Housing Frail Elders: International Policies, Perspectives, and Prospects. Baltimore: The Johns Hopkins University Press, 1995.
- Rodgers, Willard, and Baila Miller, "A Comparative Analysis of ADL Questions in Surveys of Older People," Journal of Gerontology: Psychology and Social Sciences, 1997, vol. 52B (Special Issue), pp. 21-36.
- Schafer, Robert, "America's Elderly Population and Their Need for Supportive Services," Working paper No. 99-3, Harvard University Joint Center for Housing Studies (1999).
- Spitze, Glenna, John R. Logan and Joyce Robinson, "Family Structure and Changes in Living Arrangements Among Elderly Nonmarried Parents," Journal of Gerontology: Social Sciences (1992), Vol. 47(6), pp. S289-S296.
- The Center for Universal Design. A Blueprint for Action: A Resource for Promoting Home Modifications. Raleigh, NC: School of Design, North Carolina State University, 1997.
- Treas, Judith, "Older Americans in the 1990s and Beyond," Population Bulletin (May 1995), vol. 50(2).
- Uhlenberg, Peter, "Replacing the Nursing Home," Public Interest (Summer 1997) No. 128, pp. 73-84.

United States Census Bureau, Statistical Abstract of the United States, 1998.

United States Census Bureau, Geographic Mobility: March 1996 - March 1997. www.census.gov/prod/3/98pubs/p20-510u.pdf, September 24, 1998.

Welch, Polly, Valerie Parker and John Ziesel. Independence Through Interdependence: Congregate Living for Older People (Commonwealth of Massachusetts, Department of Elder Affairs, n.d.).

White, Susan Elizabeth. The Elderly Living Alone in America. New York: Garland Publishing, Inc., 1997.

Wolf, Douglas A., "The Elderly and their Kin: Patterns of Availability and Access," in Linda G. Martin and Samuel H. Preston, eds. Demography of Aging. Washington, D. C.: National Academy Press, 1994, Pp. 146-194.

Wolinsky, Frederic D., et al. 1992. "The Risk of Nursing Home Placement and Subsequent Death Among Older Adults," Journal of Gerontology - Social Sciences, 47(4): S173-S182.

Wolinsky, Frederic D., and Robert J. Johnson, 1991, "The Use of Health Services by Older Adults," Journal of Gerontology - Social Sciences, 46: S345-357.

Table 1
Living Arrangements of the Elderly
by Age of the Oldest Elderly Member of the Household: 1993
(Percentage)

Age of Oldest Elderly Member	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
70-74	1.3	5.2	6.8	2.5	84.2	100.0
75-79	2.5	7.2	8.2	3.9	78.1	100.0
80-84	2.5	8.1	11.4	8.3	69.7	100.0
85-89	7.0	8.3	14.2	10.4	60.2	100.0
>=90	10.1	3.8	32.0	16.4	37.7	100.0
Total>=70	2.9	6.6	10.0	5.5	74.9	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 2**Living Arrangements of the Elderly by Region: 1993**
(Percentage)

Region	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
New England	3.8	6.4	8.8	4.8	76.2	100.0
Middle Atlantic	1.8	6.0	11.7	6.5	74.0	100.0
East North Central	1.9	3.6	10.1	4.8	79.7	100.0
West North Central	5.4	3.4	5.3	6.1	79.8	100.0
South Atlantic	4.5	10.6	11.0	4.8	69.1	100.0
East South Central	0.2	1.2	14.0	6.3	78.3	100.0
West South Central	2.7	6.5	10.7	8.1	72.0	100.0
Mountain	3.9	11.9	4.6	5.8	73.8	100.0
Pacific	2.2	8.8	10.5	4.4	74.1	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 3**Living arrangements of the Elderly by Marital Status: 1993**
(Percentage)

Marital Status	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
Married, Spouse Present	0.7	4.7	2.2	3.2	89.2	100.0
Married, Spouse Absent	9.7	8.0	14.4	13.4	54.5	100.0
Living with Someone	0.0	5.0	2.0	13.8	79.3	100.0
Divorced/ Separated	2.9	12.0	14.8	6.2	64.1	100.0
Widowed	4.3	7.5	15.3	6.4	66.6	100.0
Never Married	5.0	5.9	15.0	13.1	61.0	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 4

Living Arrangements of the Elderly by Number of Elderly ADLs in Household: 1993
(Percentage)

Combined Number of ADLs	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
None	2.2	6.3	6.7	2.1	82.7	100.0
1	4.5	6.3	11.4	7.2	70.6	100.0
2	4.4	7.6	14.9	11.9	61.2	100.0
3	4.7	8.0	14.9	11.6	60.8	100.0
4	2.9	4.4	24.6	19.8	43.3	100.0
5 or more	2.8	6.8	28.7	22.1	39.6	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 5

Living Arrangements of the Elderly by Number of Elderly IADLs in the Household: 1993
(Percentage)

Combined Number of IADLs	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
None	2.6	6.5	6.7	1.2	83.0	100.0
1	3.3	6.7	8.2	9.8	72.0	100.0
2	3.9	8.9	16.7	17.0	53.5	100.0
3	5.2	7.5	27.5	14.8	45.0	100.0
4	3.4	6.8	29.3	14.9	45.6	100.0
5 or more	1.9	1.8	38.0	22.9	35.4	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 6
Living Arrangements of the Elderly
by the Walking, Dressing and Bathing ADLs in a Household: 1993
(Percentages)

Combined Number of Walking, Dressing or Bathing ADLs	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
None	2.2	6.3	6.6	2.5	82.5	100.0
1	4.4	6.6	14.3	9.3	65.4	100.0
2	7.0	8.0	18.7	12.6	53.7	100.0
3 or more	3.3	8.8	28.0	21.9	38.0	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 7

Living Arrangements of the Elderly by Difficulties in Performing Specific Tasks: 1993
(Percent having difficulty, cannot do, or do not do)

	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
Walk Several Blocks	48.0	45.1	55.8	75.2	39.3	43.2
Climb Stairs	43.9	42.0	43.7	64.4	28.2	32.7
Move Heavy Objects	51.6	50.3	54.5	66.3	40.4	43.9
Lift Ten Pounds	58.1	47.4	63.3	76.0	36.7	42.9
Pick Up A Dime	12.3	9.5	17.1	23.4	9.3	10.9

Source: Compiled from the 1993 AHEAD survey data.

Table 8**Living Arrangements of the Elderly by Health Conditions: 1993**
(percent)

Health Conditions	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
High Blood Pressure or Hypertension	2.3	6.7	9.7	5.1	76.2	100.0
Diabetes	2.1	6.5	12.2	6.9	72.3	100.0
Cancer Ever	2.7	7.1	9.8	5.6	74.9	100.0
Lung Disease Ever	1.8	8.3	9.0	8.0	72.9	100.0
Heart Condition Ever	2.8	6.7	10.0	6.0	74.5	100.0
Psychiatric Problems Ever	2.7	7.5	8.3	6.8	74.8	100.0
Arthritis Past 12 Months	2.8	7.5	10.1	6.6	73.0	100.0
Fall Down Past 12 Months	3.0	5.4	12.5	7.4	71.7	100.0
Incontinence Past 12 Months	3.2	6.8	10.6	7.8	71.8	100.0
Poor Vision (with glasses) or Legally Blind	2.8	6.4	9.3	4.5	77.0	100.0
Hearing Aid	3.6	7.0	9.6	5.4	74.5	100.0
Poor Hearing (with aid)	3.0	6.7	9.5	5.2	75.6	100.0
Bothered by Pain Often	2.7	7.1	10.0	6.3	73.9	100.0
For Those Bothered by Pain, Pain Prevents Activity Last 12 Months	3.1	6.9	10.8	8.2	70.9	100.0
Other Health Problems	2.9	6.3	9.0	5.9	76.0	100.0
All Households	2.9	6.6	10.0	5.5	74.9	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 9
Living Arrangements of the Elderly
by Education of Oldest Elderly Respondent(s): 1993
 (percentage)

Education Years of School Completed	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
0-6	2.3	8.0	17.4	9.5	62.8	100.0
7-8	2.4	7.4	12.7	7.0	70.5	100.0
9-11	2.4	6.4	11.5	5.4	74.3	100.0
12	3.0	7.0	9.1	3.9	77.1	100.0
13-15	3.2	6.4	5.8	4.8	79.8	100.0
16	4.6	6.0	6.3	6.1	77.1	100.0
>=17	3.9	1.9	5.1	4.4	84.8	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 10

**Living Arrangements of the Elderly
by Highest Education of Elderly Respondent(s): 1993**
(percentage)

Education Years of School Completed	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
0-6	2.8	9.2	20.2	9.9	58.1	100.0
7-8	2.9	7.5	15.2	8.2	66.3	100.0
9-11	2.4	7.4	12.2	5.3	72.6	100.0
12	2.9	6.5	8.9	4.3	77.5	100.0
13-15	2.8	6.5	5.4	4.5	60.8	100.0
16	4.2	5.5	5.4	5.6	79.4	100.0
>=17	3.2	2.4	4.6	3.8	86.0	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 11**Living Arrangements of the Elderly by Income: 1993**
(percentage)

Income	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
<\$5,000	4.3	9.8	1.3	12.3	72.3	100.0
\$5,000 - \$9,999	5.0	13.5	4.5	9.0	68.1	100.0
\$10,000 - \$14,999	3.7	6.9	9.2	6.3	73.9	100.0
\$15,000 - \$24,999	2.0	4.8	10.5	5.0	77.7	100.0
\$25,000 - \$34,999	1.9	4.2	10.8	3.4	80.0	100.0
\$35,000 - \$49,999	2.2	3.6	13.9	3.3	77.0	100.0
\$50,000 - \$74,999	1.0	2.5	21.0	1.8	73.7	100.0
≥\$75,000	1.6	1.9	15.6	2.2	78.6	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 12**Living Arrangements of the Elderly by Net Worth: 1993**
(percentage)

Net Worth	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
Negative	4.5	21.5	17.2	5.0	51.9	100
\$1-\$24,999	6.4	14.7	19.7	7.2	52.1	100
\$25,000- \$49,999	2.8	6.1	12.3	8.5	70.3	100
\$50,000- \$99,999	2.2	3.8	7.6	5.4	81.0	100
\$100,000- \$224,999	1.5	3.6	6.8	4.2	84.0	100
\$225,000- \$499,999	1.2	3.4	3.4	3.8	88.3	100
>=\$500,000	1.3	1.4	4.5	4.2	88.6	100

Source: Compiled from the 1993 AHEAD survey data.

Table 13**Living Arrangements of the Elderly by Structure Type: 1993**
(percentage)

Structure Type	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
Single House	0.8	9.5	80.8	66.4	75.7	69.1
Duplex	0.8	2.9	3.7	7.6	4.4	4.3
Mobile Home	3.0	21.2	4.2	4.9	5.8	6.5
Apartment/ Condominium	95.4	66.0	9.0	20.1	13.0	18.9
Townhouse	0.0	0.4	2.2	0.7	1.1	1.1
Other	0.0	0.0	0.1	0.3	0.0	0.1
All Types	100.0	100.0	100.0	100.0	100.0	100.0

Source: Compiled from the 1993 AHEAD survey data.

Table 14

Living Arrangements of the Elderly by Structure Type and Tenure: 1993

Structure Type and Tenure	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
Single family						
Own	66.9	91.3	45.7	87.5	91.9	86.2
Rent	33.1	5.4	8.8	3.9	3.3	4.0
Other	0.0	3.3	45.5	8.5	4.8	9.8
Duplex						
Own	0.0	26.8	48.6	46.7	56.7	53.4
Rent	100.0	73.3	18.3	37.4	34.2	35.3
Other	0.0	0.0	33.1	16.0	9.1	11.4
Mobile Home						
Own	100.0	91.1	73.4	78.5	88.0	87.5
Rent	0.0	5.1	0.0	10.8	7.4	6.5
Other	0.0	3.8	26.6	10.8	4.6	6.1
Apartment/Condominium						
Own	5.0	12.1	10.8	10.8	28.6	19.4
Rent	83.1	85.7	72.2	81.0	66.5	74.6
Other	11.9	2.2	17.1	8.2	4.9	6.1
Townhouse						
Own	--	100.0	12.3	100.0	66.4	57.3
Rent	--	0.0	38.3	0.0	24.1	35.6
Other	--	0.0	49.4	0.0	9.5	17.0
Other						
Own	--	--	100.0	0.0	100.0	64.1
Rent	--	--	0.0	65.4	0.0	23.5
Other	--	--	0.0	34.6	0.0	12.5
All Types						
Own	8.3	37.1	43.2	68.3	81.6	71.9
Rent	80.3	60.3	15.0	22.5	13.3	19.1
Other	11.4	2.6	41.8	9.2	5.1	9.0

Source: Compiled from the 1993 AHEAD survey data.

Table 15

Living Arrangements of the Elderly by Number of Rooms: 1993
(Percent of each arrangement with indicated number of rooms)

Number of Rooms	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
1	16.6	1.7	1.7	2.7	0.3	1.1
2	23.2	8.6	1.6	1.9	1.6	2.7
3	43.1	42.9	4.1	12.1	6.5	10.0
4	16.3	27.1	13.2	22.7	17.5	17.9
5	0.9	13.6	27.2	24.3	27.8	25.8
6	0.0	5.4	23.3	19.1	23.9	21.7
>=7	0.0	0.8	29.9	17.1	22.5	20.8

Source: Compiled from the 1993 AHEAD survey data.

Table 16

Living Arrangements of the Elderly by Number of Stories in Building: 1993
(Percent of each arrangement with indicated number of stories in building)

Number of Stories in building	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
One	21.6	49.9	56.3	55.5	59.2	57.1
Two	12.3	22.4	35.5	30.0	32.2	31.3
Three or more	66.1	27.7	8.3	14.4	8.5	11.6

Source: Compiled from the 1993 AHEAD survey data.

Table 17

Living Arrangements of the Elderly and Presence of Special Features: 1993
(Percent With Feature)

Special Features	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
Call Devices	74.3	41.5	6.0	15.7	5.0	10.1
Bathroom Bars	81.6	59.3	31.3	40.9	20.1	26.8
Wheelchair Modifications	60.2	33.6	12.5	15.6	8.3	12.3
Railings	38.7	24.5	9.6	14.8	6.9	9.7
Ramps	55.1	27.5	6.6	12.6	4.2	7.9

Source: Compiled from the 1993 AHEAD survey data.

Table 18

Living Arrangements of the Elderly and Housing Condition: 1993
(percent)

Condition of Housing	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
Excellent	47.8	34.0	25.9	19.3	22.8	24.4
Very Good	28.5	38.4	27.8	27.3	35.2	34.0
Good	20.4	21.6	31.3	35.4	29.2	29.0
Fair	3.1	5.2	12.0	14.1	10.6	10.4
Poor	0.2	0.8	3.0	3.9	2.3	2.3

Source: Compiled from the 1993 AHEAD survey data.

Table 19

Living Arrangements of the Elderly and Safety of Neighborhood: 1993
(percent)

Safety of Neighborhood	Assisted Living in a 60 plus Community	Living in a 60 plus Community Without Assistance	Shared Housing	Supported Housing	Other Housing	All Types of Housing
Excellent	34.6	26.6	33.1	23.2	27.1	27.6
Very Good	27.1	35.6	28.5	31.0	34.7	33.7
Good	26.2	22.1	25.8	29.1	28.3	27.7
Fair	6.2	12.0	9.5	10.7	7.8	8.3
Poor	5.9	3.7	3.0	6.1	2.2	2.7

Source: Compiled from the 1993 AHEAD survey data.

Table 20

**Most Likely Moves of Those Certain They will Move in Next Five Years
by Age and sex: 1993
(Percent)**

Age	Buy or Rent	Move In With Another Person	Nursing Home	Retirement Home/Community	Total
Both Sexes					
70-74	65.9	8.0	2.5	23.6	100
75-79	59.9	5.9	6.3	27.9	100
80-84	46.3	16.0	9.3	28.3	100
85-89	36.1	9.2	15.4	39.2	100
>=90	18.5	14.4	28.8	38.4	100
Total>=70	57.1	9.1	6.5	27.3	100
Males					
70-74	72.9	6.6	1.3	19.2	100
75-79	76.3	3.0	3.9	16.8	100
80-84	60.1	11.9	4.5	23.5	100
85-89	46.3	5.5	5.0	43.2	100
>=90	20.2	14.5	37.3	28.1	100
Total>=70	69.1	6.5	3.4	20.9	100
Females					
70-74	61.4	8.9	3.3	26.5	100
75-79	50.5	7.6	7.6	34.2	100
80-84	39.3	18.2	11.8	30.7	100
85-89	32.0	10.8	19.7	37.6	100
>=90	17.8	14.3	25.6	42.3	100
Total>=70	50.3	10.6	8.2	30.9	100

Source: Compiled from the 1993 AHEAD survey data.

Table 21

Living Arrangements of the Elderly and Out-of-Pocket Housing Costs: 1993
(Monthly \$)

	Mean	Median
Assisted Living in a 60 plus Community: With Income Limitations	\$273	\$191
Assisted Living in a 60 plus Community: Without Income Limitations	1,461	1,210
Living in a 60 plus Community Without Assistance: With Income Limitations	201	162
Living in a 60 plus Community Without Assistance: Without Income Limitations	308	210
Shared Housing	442	285
Supported Housing	328	250
Other Housing	351	263
All Types of Housing	359	255

Source: Compiled from the 1993 AHEAD survey data.

Table 22

Living Arrangements and Out of Pocket Costs by Tenure: 1993
(Mean Monthly Amounts)

	Own	Rent
Assisted Living in a 60 plus Community:	\$238	\$911
Living in a 60 plus Community Without Assistance:	176	245
Shared Housing	443	439
Supported Housing	293	454
Other Housing	338	433

Source: Compiled from the 1993 AHEAD survey data.

Table 23
Out of Pocket Cost to Income Ratios by Living Arrangements; 1993

Living Arrangement	Less Than or Equal to 30%	30+% to Less Than or Equal to 40%	40+% to Less Than or Equal to 50%	More Than 50%	Total
Assisted Living in a 60 plus Community: With Income Limitations	60.6	11.2	13.7	14.5	100.0
Assisted Living in a 60 plus Community: Without Income Limitations	11.5	10.6	2.7	75.3	100.0
Living in a 60 plus Community Without Assistance: With Income Limitations	77.6	18.5	2.8	1.2	100.0
Living in a 60 plus Community Without Assistance: Without Income Limitations	66.9	11.1	10.8	11.2	100.0
Shared Housing	78.0	8.4	5.2	8.4	100.0
Supported Housing	65.3	11.5	6.4	16.8	100.0
Other Housing	76.6	9.7	4.9	8.9	100.0
Total	75.4	10.1	4.9	9.7	100.0

Source: Compiled from the 1993 AHEAD survey data.