THE ASSET AND INCOME PROFILE OF RESIDENTS IN SENIORS CARE COMMUNITIES

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Abstract

Understanding the economic characteristics of residents in seniors care communities is important to understanding the demand for these services as well as how individuals are paying for this type of care. It is particularly critical now given the recent steep decline in both the housing and equity markets, which could significantly erode the assets available to pay for senior housing. Previous research has examined various economic aspects of individuals who live in residential care communities. However, most of the existing literature focuses on detailed income information available for small, selected samples, which lack asset information or raise concerns about national representativeness. In order to fill this gap in the literature, this project examines income and asset information that is readily available in three nationally-representative surveys, previously underutilized for analyzing information about individuals in seniors care communities. By providing such information, this study 1) provides a strong base for further research; 2) helps the public sector craft effective long-term care policies; and 3) aids the private housing and care industry in providing appropriate facilities and services.

This study, using existing data sources, reports the income and assets of individuals in three categories of senior housing and care facilities – independent living communities (ILCs), assisted living residences (ALRs), and continuing care retirement communities (CCRCs). The results show that residents in both ILCs and ALRs have average incomes that are lower than the average costs of those types of care communities. Not surprisingly, then, the wealth of residents in independent living communities is lower, on average, than those living in private residences, potentially due to spending down assets in order to cover the monthly payments. Conversely, CCRCs attract the wealthiest residents of all three care facilities. CCRC residents also tend to have higher incomes and asset than even those living in private residences, suggesting a substantial difference in the type of clientele that moves into continuing care versus other types of care communities.

This study also examines the characteristics of individuals who move from private residences into the different types of care communities. The sample size is too small to provide information on those moving to ALRs. The data show a strong age gradient for moving into ILCs and CCRCs. Interestingly, baseline health does not seem to determine who eventually moves into a care community, but having higher income and assets does matter.

Introduction

Previous research has examined various economic aspects of individuals who live in seniors care communities. However, most of the existing literature focuses on detailed income information available for small, selected samples, which lack asset information or raise concerns about national representativeness. In order to fill this gap in the literature, this project examines income and asset information that is readily available in three nationally-representative surveys, previously underutilized for analyzing information about individuals in seniors care communities. Understanding the economic characteristics of those in seniors care communities is particularly critical now given the recent steep decline in both the housing and equity markets, which could significantly erode the assets available to pay for seniors housing. By providing such information, this study 1) provides a strong base for further research; 2) aids the private housing and care industry in providing appropriate facilities and services; and 3) helps the public sector craft effective long-term care policies. For example, seniors care communities may play an important role in meeting the care needs of middle- and lower-wealth households, which in turn could have large impacts on the future demand for skilled nursing home beds and likewise Medicaid budgets.

Using data from the *Health and Retirement Study* (HRS), *National Long-Term Care Survey* (NLTCS), and the *Medicare Current Beneficiary Survey* (MCBS), this study documents the characteristics of individuals using seniors housing and care communities (independent living facilities, assisted living residences, and continuing care retirement communities) and compares them to those living in private residences.[1] The panel nature of these datasets also makes it possible to compare the financial and health situations of current residents over time as well as individuals prior to entry. Regression analysis furthers our understanding of the characteristics associated with entry into these types of facilities.

The paper proceeds as follows: Section 1 reviews the literature. Section 2 describes the data used in this survey and the various types of senior care arrangements. Section 3 discusses the cross-sectional results for independent living facilities, assisted living residences, and continuing care retirement communities. Section 4 summarizes the longitudinal results for the three different care communities. Section 5 lists the major conclusions.

1. Literature Review

While the academic literature is limited, industry studies have previously collected information on average income, assets, age, and marital status of individuals in seniors care communities.[2] A detailed review of the literature can be found in Appendix

[1] While originally thought to be a potentially useful information source, the *National Health Interview Survey* (NHIS) does not provide enough information about the residence to identify the different care community types.

[2] There are many terms used in academic and industry publications for similar concepts. In this paper, "seniors care communities" is an umbrella term for all age-restricted market-based communities in which seniors reside and get some care provided with their fees, but excludes nursing homes. These types of

1, since industry reports may not be readily available to the research community. The collected literature has tended to focus on specific types of residences and may not provide a comprehensive look at residents of seniors care communities nationwide.

The thrust of the existing literature is that that many individuals in independent living communities (ILCs), assisted living residences (ALRs), and continuing care retirement communities (CCRCs) cannot afford their living arrangements on their incomes alone. That is, the annual rent and fees at these institutions often exceed residents' income from Social Security, pensions, and any income from work or investments. The "State of Seniors Housing 2008" study found that the median yearly base rent and fees were $24,224 in a free-standing ILC and $34,882 for a free-standing ALR.[3] The same report finds that CCRCs have lower median annual costs than ALRs but require a substantial entrance fee. Historically, demand for seniors care housing came from individuals at the lower end of the health/wealth spectrum, relying heavily on public assistance. However, Stearns & Morgan (2001) indicate that over the past fifteen years more options have become available as middle and higher wealth individuals show greater interest in these care communities as a way to support themselves during increasing functional dependency. Mullen & Singer (2008) highlight that while the income and net worth among the elderly has been increasing over the past decade, they still might not have enough to pay for seniors care properties.

Several studies have investigated the income of residents of ILC, ALR, and CCRC communities. "Understanding Seniors Housing Demand, Choices, and Behavior" (2003) reports that the median income of an individual in an ILC is $20,400 compared and in a CCRC where it is $33,600. These numbers imply that an individual in an ILC has a lower median income than the median annual cost of the residence. The median income of a CCRC resident would marginally cover the median annual cost, not including the entrance fee. The "National Survey of Assisted Living Residents: Who Is the Customer" (1998) found that 64 percent of ALR residents had annual incomes of less than $25,000, an amount that would not cover the median cost of a free-standing ALR.

Given that many individuals do not have the income necessary to cover the costs of living in one of these facilities, the question is how they pay for their accommodations. The "2006 Overview of Assisted Living" provided information on the primary payer for residents of the three types of seniors care communities. The percent of residents listing themselves as primary payers ranged from 38.7 percent for free-standing ALR residents, to 66.3 percent for ILC residents, to 79.5 for CCRC residents. For ALR residents, 47.8 percent listed family as the primary payer and 10 percent listed Medicaid. ILC residents listed family as the primary payer 14.7 percent of the time and Medicaid 13.6 percent of the time. While CCRC and ILC residents frequently pay for themselves, often times they

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communities are also referred to as residential care communities. The term "private residence" refers to individuals who are not in seniors care communities or nursing facilities, but live in rented or owned accommodations that do not include any care.

[3] The study was sponsored by the American Seniors Housing Association (ASHA), National Investment Center (NIC), and American Association of Homes and Services for the Aging (AAHSA) investigated the annual costs of living in the three types of communities by surveying their owners. See tables 9.2, 9.4,

must spend down their assets to cover the costs. The "Understanding Seniors Housing Demand, Choices and Behavior" (2003) study finds that 14.5 percent of CCRC residents had to liquidate assets in the previous two years to cover their expenses, while 19.3 percent of ILC residents had to do the same. Newcomer & Maynard (2002) estimate that between forty and sixty percent of those aged 75 and over can afford a stay of at least two years in senior care community.

2. Data

2.a Existing Datasets

This study employs three datasets to examine the financial characteristics of residents in residential care facilities.

Health and Retirement Survey (HRS)

The University of Michigan's *Health and Retirement Study* (HRS) began as two distinct, though closely related, surveys. The first study, the "original HRS," was administered in 1992 to a nationally representative sample of the non-institutionalized American population born between 1931 and 1941. In the case of married couples, both spouses (including spouses who were born in different years) were also interviewed. This sample continues to be interviewed every 2 years, even if they enter a nursing facility.

The second survey, the *Study of Assets and Health Dynamics among the Oldest Old* (AHEAD), was first administered in 1993 to a nationally representative sample of non-institutionalized Americans born in 1923 or earlier, and their spouses. These individuals were re-interviewed in 1995 and 1998, and they, too, continue to be interviewed on the 2-year cycle of the study.

The original HRS and AHEAD surveys were integrated in 1998, using the *Health and Retirement Study*. Two new groups of survey participants were added. The first group consists of people in the age group between the original HRS and AHEAD samples. Born between 1924 and 1930 and raised during the Great Depression, these participants are called the Children of the Depression Age (CODA) cohort. The second group added was the first "refresher cohort" brought in to replenish the sample of people in their early 50s as the original HRS cohort aged. It is known as the War Baby (WB) cohort, consisting of people born between 1942 and 1947. Participants born between 1948 and 1953 -- the early years of the post-World War II baby boom (Early Boomers) -- were added in 2004. The Mid-Boomer cohort (born 1954-1959) will be added in 2010. By continuing to "refresh" the sample, the HRS will provide a long-term source of data on the transition from middle age to the initial stages of retirement and beyond.

Currently, the HRS surveys more than 22,000 Americans over the age of 50 every two years. By design, the HRS oversamples African-Americans, Hispanics, and Floridians. The study focuses on measuring an aging America's physical and mental health, insurance coverage, financial status, family support systems, labor market status, and retirement planning.

In order to make the HRS more comparable to the other surveys, we limit the sample to individuals age 65 and over. This limitation changes the number of observations for individuals living in private residences, but not the other types of living arrangements.

The *National Long Term Care Survey* (NLTCS)

Duke University's *National Long Term Care Survey* (NLTCS) began in 1982, with follow-ups approximately every 5 years. It is a longitudinal survey designed to study changes in the health and functional status of older Americans (aged 65+). It also tracks health expenditures, Medicare service use, and the availability of personal, family, and community resources for caregiving.

The sample was selected by sampling from the current Medicare enrollment files in 1982, and is augmented with new enrollees every cycle. Both community and institutionalized elderly are surveyed. The survey is administered by the US Census Bureau, and primarily funded by the NIA.

At each wave, a screener questionnaire is administered, which divides the sample into three parts: the non-disabled (frequently called screen-outs), those disabled but living in the community, and those disabled living in an institution. About 5,000 people die between waves and are replaced by a sample of about that size of people who have attained age 65 since the prior wave. Generally speaking, only a percentage of the non-disabled is retained, leaving the total sample size for a wave at about 20,000. There is more detailed information about respondents with Activities of Daily Living limitations (ADL) or Instrumental Activities of Daily Living limitations (IADL), or who are institutionalized, which represents approximately 65 percent of the sample.

The *Medicare Current Beneficiary Survey* (MCBS)

The *Medicare Current Beneficiary Survey* (MCBS) is a continuous survey of a nationally representative sample of aged, disabled, and institutionalized Medicare beneficiaries. The MCBS, which is sponsored by the Centers for Medicare & Medicaid Services (CMS), is the only comprehensive source of information on the health status, health care use and expenditures, health insurance coverage, and socioeconomic and demographic characteristics of the entire spectrum of Medicare beneficiaries.

The MCBS Cost and Use files link Medicare claims to survey-reported information and provide complete expenditure and source of payment data on all health care services, including those not covered by Medicare. Survey-reported data include information on the use and cost of all types of medical services, as well as information on supplementary health insurance, living arrangements, income, health status, and physical functioning. Medicare claims data includes use and cost information on inpatient hospitalizations, outpatient hospital care, physician services, home health care, durable medical equipment, skilled nursing home services, hospice care, and other medical services. As

with the HRS data, we limit the MCBS sample to those ages 65 and over, thus eliminating younger individuals eligible for Medicare due to disability.

2.b Defining Senior Care Facilities

Since many existing surveys do not concentrate on, and may even exclude, individuals not living in private residences, defining seniors housing communities in the same manner as previous ASPE and NIC publications is key to comparability. This section discusses in detail the questions available in the existing datasets and how they can be used to categorize the place of residence.

The NIC defines three types of senior care facilities:

Independent Living Communities (ILC): Age-restricted multifamily rental properties with central dining facilities that provide residents, as part of their monthly fee, access to meals and other services such as housekeeping, linen service, transportation, and social and recreational activities. Such properties do not provide, in a majority of the units, assistance with ADLs such as supervision of medication, bathing, dressing, toileting, etc. These institutions include no licensed skilled nursing beds in the property.

Assisted Living Residences (ALR): State-regulated rental properties that provide the same services as independent living communities listed above, but also provide, in a majority of the units, supportive care from trained employees to residents who are unable to live independently and require assistance with ADLs including management of medications, bathing, dressing, toileting, ambulating and eating. These properties may have some nursing beds, but the majority of units are licensed for assisted living. Many of these properties include wings or floors dedicated to residents with Alzheimer's or other forms of dementia. A property that specializes in the care of residents with Alzheimer's or other forms of dementia that is not a licensed nursing facility is considered an assisted living property.

Continuing Care Retirement Community (CCRC): Age-restricted properties that include a combination of independent living, assisted living, and skilled nursing services (or independent living and skilled nursing) available to residents all on one campus. Resident payment plans vary and include entrance fee, condo/coop, and rental programs. The majority of the units are not licensed skilled nursing beds.

Applying these definitions to the existing questionnaires is a challenge. While the NIC uses information such as the number of meals per day included in the fees and whether or not the meals are served in a common dining hall, the existing surveys do not go into such detail.

We identify the three types of seniors care properties as closely as possible to the NIC definitions, using 4 questions to differentiate the types of seniors care communities, as shown in Table 1. The main questions that identify ILCs are the availability of meal service but the absence of ADL services. The main question that identifies ALRs versus

CCRCs is the availability of nursing care. See Appendix 2 for the exact questions used for each survey to categorize individuals within these housing communities.

These definitions are not without caveats. While we have matched the survey questions to the NIC definitions as accurately as possible, there remains some concern that the labels are misapplied. The main concern is our inability to differentiate between market rate properties and those that are subsidized or run through government programs. This will bias our estimates of income and wealth downward compared to the existing literature, which was careful only to include market rate facilities in their surveys. Another concern is whether or not we are picking up all types of residents that live in CCRCs in the proportion they are represented in the CCRC property. Due to the health limitations of the residents, we might be missing a disproportionate number of CCRC residents living in the skilled nursing facility wing of the property. Conversely, we might be missing some CCRC residents that live in the IL or AL wing if they report that 24-hour nursing home care is not available since they do not use that service. To the extent that we miss a disproportionate number of SNF CCRC residents, this will bias our estimates of health, and likely wealth, upwards. To the extent we miss lower-care intensity CCRC residents, our estimates of the average age and health, and likely wealth, will be biased downwards.

2.c Health, Wealth, and Income Variables

This section details the health, wealth and income information available in the various surveys.

Health

Health can be measured in a variety of ways. We report the objective measures that are the same in the three surveys. The first is limitations in performing ADLs -- walking, dressing, bathing, eating, toileting, and getting in and out of bed. The second is limitations in performing IADLs -- managing money, grocery shopping, and preparing meals. The surveys also include self-reported height and weight, making it possible to calculate an individual's body mass index (BMI). The Center for Disease Control defines a healthy weight to be between 18.5 and 24.9 on the BMI scale. A BMI under 18.5 is considered underweight, while 25-29.9 is overweight, and 30 and higher is obese. Information is also available on whether the individual currently drinks or smokes.

The surveys also provide data on the number of doctor visits. The HRS asks for the number of visits within the last two years, the MCBS records visits in the past year, and the NLTCS asks about visits in the last month. We divide the numbers reported in the HRS and MCBS by 24 and 12 respectively making the number reported the average number of doctor visits per month. This adjustment makes the reported statistics more comparable with the NLTCS definition, but the concepts do differ slightly. It is also possible to determine if the individual is paying for in-home care in the HRS or has any in-home care (paid or unpaid) from the MCBS.

These health measures do suffer from some limitations. The NLTCS asks most of the health questions for a selected subsample of individuals, namely those who are not living in a facility, so only the number of ADLs is known for individuals living in CCRCs from that survey.

Income

The surveys provide information on both the amount and sources of income received over the previous year. Again, the HRS provides the most comprehensive view, in part by survey design. Participants report the amounts of income from a variety of sources: earnings, Social Security (SS), Supplemental Security Income (SSI), disability insurance, investments, and pensions. The NLTCS also collects income information, but from fewer sources: SS, SSI, and pension income only. Both surveys also have a measure of total household income.

The income information in the MCBS is the most limited. It is possible to determine if an individual participates in the paid labor market. In addition, surveyed individuals are asked to report the "best source or estimate of income," which is to "include all sources such as pension, Social Security and retirement benefits" for both the respondent and spouse.

Wealth

The information on wealth is somewhat scarce in most of the data sources. The most complete information is found in the HRS, where wealth is one of the focuses of the survey. This survey reports information on home ownership, value of the home, mortgages, debts, and net worth. The NLTCS only has information about home ownership, home values, mortgage rates and mortgage values and the MCBS contains no information on household wealth. The health insurance information can be used to glean more wealth information from the data. For example, Medicaid coverage clearly implies low wealth. In addition, the survey provides some limited information on households' ability to preserve income and wealth as they age; all three surveys provide information on whether the individual carries long-term care insurance or private health insurance, which limits future demands for out-of-pocket health spending. The HRS also provides information on whether or not the individual receives financial assistance from children, friends, or parents, and how much assistance is received.

3. Cross-Sectional Results

3.a Seniors in Private Residences

As a basis for comparison, Table 2 provides details for individuals age 65 and older who live in private residences, as opposed to one of the three highlighted living arrangements or a nursing home. These seniors may be living alone or with others, such as children or spouses. In fact, most live in 2-person households.

All three datasets paint a fairly consistent picture of the 65 and older private-residence-dwelling population. The NLTCS does capture a slightly older population than the HRS

or the MCBS. Considering the different sampling frames and strategies between the surveys, this small age difference is not surprising. As expected given the age difference, the NLTCS community dwelling population is slightly more female, and less likely to be married.

The area where the surveys differ the most is the measurement of health. Part of the difference is due to the questionnaires and part is due to the sampling frame. The NLTCS sample is targeted to follow those with health limitations over time. Surveyed individuals without ADL limitations are kept in reserve for future survey years, but are screened out of the current year's survey. This automatically creates a sample with more ADL limitations than is found in the HRS. In contrast, the MCBS is a sample of all Medicare beneficiaries and therefore has no health-limitation bias, and as expected, the number of ADL limitations is more similar to the HRS than the NLTCS. The other health measures reported in the HRS and the MCBS are very similar, while the NLTCS remains the outlier. The number of IADL limitations, doctor visits, and the percentage of respondents receiving in-home help are consistent across the HRS and MCBS. This suggests that a slight unhealthy-bias remains in the NTLCS sample even after the sampling weights are applied.

From the three datasets, we can glean a consistent picture about income, both the sources and the amounts, for seniors living in a private residence. Eighteen percent still participate in the labor force after age 65, making on average $30,000 per year. Almost everyone is collecting Social Security income, averaging around $10,000 per year in benefits. Two-thirds are receiving investment income, averaging over $15,000, and between 40 to 45 percent are receiving pension income. The median of total household income is between $22,000 and $30,000, while the mean total household income is between $30,000 and $50,000.

While the asset information is more limited than income information, eighty percent of seniors in private residences still own a house even at advanced ages, worth just under $200,000 on average. Twenty percent of these homeowners are still carrying a mortgage. Still, after accounting for debt, mean net worth is quite high, almost $500,000.[4] Median net worth is $206,000. Very few people are getting financial help from outside the household, and even those who do get help report relatively small amounts received. This suggests that private-residence-dwellers are financially independent.

3.b Independent Living Communities

Of the three types of care communities, independent living facilities offer the least number of services, and thus ILC residents would be expected to most resemble those living in private residences.

[4] This net worth measure does not include future social benefits or defined benefit pension benefits, but does include existing 401(k) and other defined contribution plan balances.

The first thing to note in Table 3 is the small sample size. Since these surveys are not targeted by the type of residence, the number of individuals living in these specialized communities is quite limited, with just around 100 observations in each the HRS and the NLTCS. The MCBS has only 12 observations, and thus we do not report information from that survey for this category.

As with individuals living in private residences, the NLTCS sample living in ILCs remains slightly older (1 year on average), has more health limitations, and sees the physician more than the HRS sample. In addition, the age, gender, and marital status composition, and health characteristics of those living in ILCs is significantly different from those living in the communities.

The composition of income for those living in an ILC is similar to those who live in private residences, with the exception of earnings. Almost everyone in an ILC has dropped out of the labor force. While average pension income is higher than that of private residence dwellers, it is not enough to compensate for the lack of earnings and lower investment income, so that ILC residents have lower median and average total household income than community dwellers. The difference in the average total household income between ILC residents and those still in private residences is statistically significant.

Almost none of the ILC residents own a home, which is not surprising considering ILCs are usually rented units. While no one states that they paid the majority of the admission fees, the ILC residents report much lower wealth (almost $175,000) than those living in the community. Along with this lower wealth, a slightly higher percentage of households report receiving financial help from their children, although the average amount received is virtually the same. It is unclear from the cross-section nature of the dataset whether these individuals were also lower-wealth when they lived in private residences, or if the proceeds from the sale of a house went to the institution or other individuals. This question will be examined further in Section 4.

3.c Assisted Living Residences

As can be seen in Table 4, in two of the three surveys the sample size for ALRs is also quite small, with approximately 70 residents in each. The sample size of 11 is simply too small to use the HRS, leaving only the NLTCS and the MCBS.

The NLTCS is the only dataset where it is possible to directly compare ALR and ILC residents. In this dataset, while the age profile is similar to that of ILCs, the ALR residents are more likely to be female and more likely to be married. They are also sicker on average, with more ADLs and more visits to the doctor in the last month. The sicker population is not surprising, given that the level of services in ALRs is higher than in ILCs.

The MCBS and the HRS community residents had quite similar characteristics. But comparing the HRS ILC residents with the MCBS ALR residents shows that the residents

of ALRs are older and sicker, which is consistent with the comparison using NLTCS data. On the other hand, the frequency of visiting a doctor is virtually identical for ILC and ALR residents across these two datasets.

Almost everyone relies on Social Security and pension income, with only 10 percent getting additional SSI payments and only 4 percent working for pay. The sources of income are quite similar to residents of ILCs, comparing both within the NLTCS and across the HRS and the MCBS, with the exception of pension income. According to the NLTCS, 93 percent of ALR residents have pension income, while only 38 percent of ILC residents enjoy pension income.

Median and average income of ALR residents is very similar to ILC residents, either looking within the NLTCS or between the HRS/MCBS samples. The surveys differ, however, on the amount of income. The NLTCS suggests an average household income of almost $23,000 for ILC and ALR residents, while the HRS/MCBS suggest higher household incomes, of over $33,000 on average.

The limited number of observations in the HRS and no wealth data in the other two surveys makes it impossible to analyze the wealth profile of ALR residents.

3.d Continuing Care Retirement Communities

Continuing Care Retirement Communities offer a continuum of care options, and potentially the highest level of service out of the three long-term care living facilities. The residents of these communities are the oldest and sickest, as can be seen in Table 5. They also tend to be single and female. This suggests we might be disproportionately picking up the more care-intensive residents of CCRCs.

The composition of income is consistent with other types of care facilities, with almost everyone collecting Social Security benefits, and less than half collecting pension benefits. A higher proportion, though, is collecting investment income – almost 85 percent, according to the HRS. Both the HRS and the NLTCS indicate that, while CCRC residents are the oldest and sickest population, they have the highest incomes, with an average household income of $40,000-$45,000. The MCBS reports the average income to be around $34,000, which is still higher than the average income of ALR residents.

The asset composition of CCRC residents is quite different than residents in other care community types. Over twenty percent still own homes, unlike the ALR and ILC residents. Unlike private residence dwellers, most CCRC residents do not have a mortgage. The average value of the home is comparable to those who live in private residences according to the HRS, but is about $80,000 less than the average value of a private-residence-dwellers house, according to the NLTCS. The net worth of CCRC residents is also higher than that of those in private residences, over $620,000 on average according to the HRS. Considering the average age of HRS respondents in CCRCs is 82, these resources are likely to outlive the resident. In addition, fewer CCRC residents are receiving financial transfers from outside the household than residents in other care

communities or in private residences, and the average transfers are less than half of that reported by seniors in private residences. CCRC residents seem to be the most financially independent households, and the most well-off.

4. Longitudinal Results

While the demographic, health, income and asset information of the residents of different seniors care communities is interesting, it does not give a complete picture of who these individuals are, and what they looked like before the entered the care community. For example, more individuals in ILCs have SSI income and are covered by Medicaid, implying very low wealth levels. But the simple cross-section analysis does not reveal whether the ILC residents were always lower-income than the average senior in private residences, or if they spent down their assets by the time they are observed, through care payments, consumption, or inter-vivos transfers.

Answering that question requires earlier information for individuals entering long-term care facilities. We have used the 1998 HRS, the 1999 NLTCS and the 2002 MCBS data, and matched them to their 2004 counterpart used in the earlier cross-section analysis. Determining which years of the surveys to examine has to balance (1) a long enough time period where we can see movement between the private residences and care community types and (2) a short enough time period so that individuals are continued to be followed in the survey.

Table 6 highlights the transitions between the 1998-2004 HRS waves. This is the longest time horizon (6-years) examined. The first thing to note is the persistence of each of the living arrangements, which is clear by examining the diagonals. Most individuals stay in the same living situation between 1998 and 2004, unless they die. Movement to a less care-intensive arrangement is rare. For example, only four people move from a CCRC in 1998 to a less-care-intensive situation in 2004. While movement to more-intense-care arrangement is somewhat more likely, this type of transition is also relatively infrequent once a care situation is selected. Most individuals do not move from an ILC to ALR to CCRC to nursing home. Instead, most moves to a care community are from the private residences, and not from another care property. It seems that individuals select one type of care community, if needed, and stay.

Similar transitions patterns can be seen between 1999 and 2004, as shown in Table 7[5]. The follow-up rates are much lower in the NLTCS than in the HRS, so even though the time horizon is similar, the number of individuals living in the same type of care community is much lower. We do observe more transitions into CCRCs, however, both from ILCs and private residences.

[5] The NLTCS is only completed every 5 years, so this is the shortest transition window we can examine. Given the high non-response rate, it does not seem prudent to examine longer periods with this dataset since any selection issues will be exacerbated.

Table 8 highlights the transitions between 2002 and 2004 found in the MCBS[6]. As expected, given the shorter time period, there is even more persistence in the living arrangements than the other two surveys. This survey show some decrease in care-intensity moves, and fewer upward transitions for those already in a care community. The short time horizon and limited number of transitions, however, prevent us from pushing further on the longitudinal aspect of this dataset.

4.a Movers

Table 9 presents the baseline characteristics (measured in 1998 and 1999 for the HRS and NLTCS respectively) for individuals who move into a care community between the baseline interview and 2004. Examining the "new movers" makes it possible to identify the type of people who demand the different types of care facilities. The sample size for ALRs is too small for both surveys, so the focus here is people moving into ILCs and CCRCs.

Here the different datasets paint different pictures of average characteristics. Based on the HRS, while the average age is similar between those who move into ILCs and CCRCs, the financial situation seem to be quite different. These income and asset differences are statistically significant. Individuals who move into ILCs are much less well-off than those who move into CCRCs, even before the move. This is shown in a variety of measures: the percent receiving Medicaid, total household income, homeownership rates and average house values, percent receiving and amounts of investment and pension income received. Even the average amount of Social Security benefits received is lower for those moving into ILCs, suggesting lower lifetime earnings as well as lower accumulated wealth.

The picture painted by the NLTCS, however, is much less clear. While the percent receiving SSI and Medicaid is higher for CCRC movers, the average household income is lower for ILC movers. The sample sizes are small, though, so it is hard to draw strong conclusions from the average characteristics. The differences between those who move into an ILC versus those that move into CCRCs are only significant on the gender and number of children at the mean; no health or income characteristics are statistically significant on average.

4.b Regression Analysis

Three probit regressions are estimated to explain the probability of (1) remaining in private residences; (2) moving into an ILC; and (3) moving into a CCRC in 2004. Characteristics measured at the baseline interview are used as explanatory variables. The equation includes age, age squared, and indicator for married, gender, number of children, the number of doctor visits, household income, and indicator variables for home

[6] Some cells are unreported because CMS requires suppression of cells small enough to threaten individual confidentiality. We also tried matching to 2001 data, but due to the nature of the sample, there are no individuals followed for that many years in the survey. 2002-2004 is the longest horizon for the longitudinal portion of the dataset.

ownership and health insurance status (Medicare, Medicaid, private insurance, long-term care insurance). Controlling for baseline characteristics, the picture of who moves into ILCs and CCRCs and who remains in private residences is more consistent between datasets in terms of demographic characteristics. The role of income still differs between the datasets. Surprisingly, individual health characteristics, such as the number of ADL and IADL limitations, are not important determinants of where an individual lives in 2004.

Table 10 presents the results of first probit: the probability of remaining in a private residence. The marginal effect of each of the baseline characteristics is presented in the table. Respondents who are male, own their home, are married, have more children and are younger are more likely to remain in private residences in 2004. The role of household income differs, where the HRS suggests that higher income households remain outside of seniors care communities, and the NLTCS suggests the reverse.

Since the sample sizes are small, few determinants of moving into an ILC or CCRC are statistically significant. For both datasets, the number of doctor visits and not owning a home in the baseline interview are positively related to moving into an ILC by 2004. Age is also an important predictor, consistent with the results for age and remaining in private residences. The NLTCS indicates that that both Medicaid eligibility and the number of children decrease the chances of moving to an ILC.

5. Conclusions

Using three datasets, we have examined the income and assets of individuals living in seniors care properties. The cross-section data present a fairly coherent picture of income, even though the data are quite limited. Compared to seniors living in private residences, individuals living in ILCs and ALRs have lower household income. CCRCs seem to attract individuals with higher incomes.

Detailed wealth information is only collected in one of the existing datasets, which makes it difficult to draw strong conclusions. ILC and ALR residents are generally not homeowners. The average net worth of ILC residents is lower than that of seniors in private residences, while the average net worth of CCRC residents is considerably higher. In addition, CCRC residents seem to receive the least amount of financial assistance from outside the household, either from friends, parents or children, of any of the comparison groups.

Sample size is a limiting factor for both the cross-section of ALR residents and in examining the assets and income of individuals before transitioning into different care communities. Due to small sample sizes in the HRS and the lack of wealth data in the other surveys, reliable wealth information for ALR residents alone is unobtainable from these existing, nationally-representative data sources. Longitudinal datasets with larger samples of seniors care community residents are needed if we are to really understand the trajectory of wealth, both before and after admission.

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Appendix 1: Comprehensive Literature Review

The "National Survey of Assisted Living Residents: Who is the Customer?" (1998) examines the process of selecting an assisted living facility and establishes profiles of the typical assisted living customer, based on age, gender, wealth, and medical needs. Family participation in the decision-making process was also studied; family members were asked about their income level and relationship with the resident. The study found that more than three quarters of the residents were women and that residents were, on average, 84 years old and had spent an average of two and a half years as resident of an assisted living facility. Daughters were by far the most likely family members to aid residents in the process, while sons were about half as likely to help out. The most interesting result is the relatively low average income level for residents and their family members. Most residents reported an annual income of less than $25,000, which the authors considered to be the "threshold level" for affordability of assisted living facilities.

This puzzling result was further examined in the "Income Confirmation Study of Assisted Living Residents and the Age 75+ Population" (1998). Using the same sample as the previous study as a base, the focus of the Income Confirmation Study was to confirm the earlier findings by using tax-return-like forms to gather income information. While this focus yielded detailed information with low item non-response, there was a high non-response rate, leading to a greatly reduced sample size and a far greater margin of error than the original study. Out of slightly more than 1,000 original respondents, only 81 adequately completed the second questionnaire. The residents were questioned about their yearly income, their sources of income, and the level of ease with which they were able to afford the minimum average fees at their facilities. This study did confirm the prior results, finding that essentially the same proportion of residents reported an annual income of less than $25,000. In fact, both studies found that the income of most residents was between $5,000 and $20,000 per year. Almost half of studio apartment residents and nearly two fifths of both one-bedroom and two-bedroom apartment residents reported having difficulty with paying the minimum average fee charged by property administrators. The study found that two fifths of residents turn to other sources to augment their income; many may draw from family members, third parties, or even the liquidation of assets.

The "Understanding Seniors Housing Demand, Choices, and Behavior" (2003) study uses data from the 2000 Health and Retirement Study (HRS) to compare demographic and income information between ten different groups of seniors; six from age-qualified residences, and four from outside of the age-qualified structure. Those living in age-qualified residences tended to be the oldest, especially when compared to those owning or renting in all-ages areas. The percentage of married residents, however, varies considerably; in age qualified residences, about half of equity-owning residents were married, while those who lived in subsidized units or rented were significantly less likely to be married. The situation in all-ages communities was quite similar: the majority of homeowners in all-ages communities were married, while the majority of renters were not. By far the wealthiest residents were those who owned in all-ages communities and those who owned equity in age-qualified communities, in terms of both income and

assets. Residents of subsidized, age-qualified residences were the least wealthy. The authors noted that the younger groups of residents (i.e., those who owned equity in an age-qualified community or owned a residence in an all-ages community) were the most likely to work or own real estate and were the wealthiest. Unfortunately, this report did not define categories of seniors care communities in the same way as the earlier reports, so it is difficult to compare the income and living arrangement data directly with many of the other NIC and ASHA studies.

"The Independent Living Report" (2009) provides further information on residents of senior care communities. The average age of recent movers was almost 82 years old. Almost two-thirds of respondent live by themselves, while almost all of the remaining individuals live with only one other person. The oldest and least wealthy were the most likely to live alone, as were those in independent living residences. The wealthiest and youngest were found to be significantly more likely to share accommodations. Approximately one-fifth reported incomes of less than $25,000, and 37 percent reported they have long-term care insurance. Entrance-fee CCRCs seem to attract a healthier and wealthier clientele. Almost two-thirds of residents in entrance-fee CCRCs reported annual incomes of $50,000 or more, as compared to one-third of residents in free-standing ILCs. Almost one-third of entrance-fee CCRC residents reported a net worth of over $1 million, compared to only 9 percent of residents in free-standing ILCs.

The "State of Seniors Housing" (2008) focuses on senior care communities themselves rather than the residents living in the properties, and thus the potential contribution for this application is somewhat limited. Definitions conforming to the NIC standards are used in the report, however, and the presented findings on costs, revenues, and different types of payment plans do give important context to any income profile of senior care residents. The authors found that three quarters of independent living facilities and all assisted living communities use a rental payment plan, while Continuing Care Retirement Communities tend to favor an extended care contract along with a significant entrance fee. Assisted living residences and Continuing Care Retirement Communities were found to have the highest revenues, both by occupied unit and by resident per day. Rent changes for the 2006-2007 period for all categories hovered at about 5%. Assisted living residences tended to have the highest base rent, followed by independent living communities and CCRCs.

The "2006 Overview of Assisted Living" found that CCRC and assisted living residents were very likely to primarily pay for their residences by themselves. The Continuing Care Retirement Communities: 2005 Profile looked at three different categories of CCRC residents based on the level of care provided within the property. Those residents receiving the least care, independent living, generally had the highest incomes and most wealth. Within the CCRC, residences receiving assisted living and nursing –level care tended to be about half as wealthy as those in independent living.

The overall picture painted by these studies is that many residents cannot afford the average fees charged by senior care facilities. This problem is almost entirely limited to independent living and assisted living facilities, where the residents tend to be

significantly less wealthy than their counterparts in CCRCs. These less wealthy residents are often forced to turn elsewhere to find the resources to make payments: many of them draw from family members, insurance and other third parties, or accumulated assets. IL and AL residents also tended to be older and less likely to be married than CCRC residents and usually had smaller reserves of wealth to draw from.

CCRC residents, on the other hand, seem to be doing quite well. They tend to have higher incomes and more savings than any other group, and also tend to be in better health. Many of these younger, healthier, and wealthier residents either enter into a contract with the community or own their residence. Entrance fees thus tend to be higher, but paying for the rent poses no problem. These residents, unsurprisingly, tend to be overwhelmingly self-sufficient, in stark contrast to those living in other types of care communities. Even the least independent CCRC residents tend to have significant reserves of wealth with which to support themselves. The differences between CCRC residents and ILC and ALR residents are substantial; the former truly seem to be in a class of their own.

Appendix 2: Defining Senior Care Communities

Health and Retirement Survey

The HRS provides the most information about living arrangements of any of our surveys. Below are the detailed questions we have used in order to define ILC, ALR, and CCRCs.

CCRC:

Individuals must answer TRUE to the following questions:
1) Is your (apartment/house) part of a retirement community, senior citizens' housing, or some other type of housing that offers services for older or disabled adults?"
2) "Does the place you live offer any of the following: Group meals?" and "Do you (or your husband/or your wife/or your partner) use it now?"
3) "Does the place you live offer help with bathing, dressing or eating?"
4) "Does the place you live offer nursing care or an on-site nurse?"

ALR:

Individuals must answer TRUE to all of the following questions:
1) "Is your (apartment/house) part of a retirement community, senior citizens' housing, or some other type of housing that offers services for older or disabled adults?"
2) "Does the place you live offer any of the following: Group meals?" and "Do you (or your husband/or your wife/or your partner) use it now?"
3) "Does the place you live offer help with bathing, dressing or eating?"
And answer FALSE to the following questions:
4) "Does the place you live offer nursing care or an on-site nurse?"
5) "Are you living in a nursing home or other health care facility? A nursing home or other health facility provides all of the following services for its residents: dispensing of medication, 24-hour nursing assistance and supervision, personal assistance, and room & meals."

In addition, the individual must indicate that they rent their current accommodations.

ILC:

Individuals answer TRUE to the following questions:
1) "Is your (apartment/house) part of a retirement community, senior citizens' housing, or some other type of housing that offers services for older or disabled adults?"
2) "Does the place you live offer any of the following: Group meals?" and "Do you (or your husband/or your wife/or your partner) use it now?"

And answer FALSE to the following question:
3) "Does the place you live offer help with bathing, dressing or eating?"
4) "Does the place you live offer nursing care or an on-site nurse?"
5) "Are you living in a nursing home or other health care facility? A nursing home or other health facility provides all of the following services for its residents: dispensing of medication, 24-hour nursing assistance and supervision, personal assistance, and room & meals."

In addition, the individual must indicate that they rent their current accommodations.

The *National Long Term Care Survey*

Due to the targeting of the sample to those with health limitations, the potential sample size for the NLTCS is larger than the HRS. Unfortunately, the questions on the housing situation are not as detailed. For example, there is no information on whether or not individuals rent or own their current accommodations.

The NLTCS categorizes the living quarters using different definitions than the NIC. Currently, the sample of individuals includes those who indicate that they are in:

1. Assisted Living Community- This could be a Retirement Home, Elderly Community, Independent Living Community, Group Home, etc., with varying degrees of assistance available to the sample person. Some assisted-living communities will group residents into different "levels" of care. Housing in assisted-living communities includes cottages, apartments and something resembling nursing home rooms.

2. Nursing Wing or Unit of a Continuing Care Retirement Community (CCRC) - These places offer skilled nursing care on the same level as a nursing home. The interviewer must have sufficient information that the sample person resides in the nursing wing of the CCRC.

Only individuals classified into "Assisted Living Community" are required to answer the questions about services provided in their community that allow us differentiate between the different types of institutions. Those that are in a nursing wing of a CCRC are placed in our CCRC category. We use the following questions to identify the living quarters:

CCRC:

Individuals indicate that:
1) They are living in the nursing wing of a CCRC
Or individuals indicate that:
1) They are *not* in a nursing wing of a CCRC
2) The community does offer substantial nursing care of any kind
3) The community does offer help with eating *or* help with moving around
4) The community does offer help with preparation of meals.

ALR:

Individuals indicate that:
1) They are *not* in a nursing wing of a CCRC
2) The community does *not* offer substantial nursing care of any kind
3) The community does offer help with eating *or* help with moving around
4) The community does offer help with preparation of meals.

ILC:

Individuals indicate that:
1) They are *not* in a nursing wing of a CCRC
2) The community does *not* offer substantial nursing

3) The community does *not* offer help with eating *or* help with moving around
4) The community does offer help with preparation of meals.

Medicare Current Beneficiary Survey
Much like the NLTCS, the potential sample size is larger than the HRS for this study, but the housing information is limited. Again, there is no information one whether someone rents or owns their current accommodations.

There are different surveys administered to individuals currently in a facility and those in the community. The respondents in facilities indicate the facility type from the following list:
1) Continuing Care Retirement Community
2) Nursing home
3) Retirement community
4) Hospital
5) Assisted living
6) Board & care home
7) Domiciliary care facility
8) Personal care facility
9) Rest home/retirement home
10) Mental health center psychiatric setting
11) Mentally ret/developmentally disabled
12) Rehabilitation facility
13) Adult/group home
14) Other

We exclude from the analysis individuals that are coded in the following categories: 2, 4, and 9-14. Since these are respondent or facility-worker identified facility types, we are not sure they align with the definitions proposed by NIC. Beyond this initial identification, there are follow-up questions about the services provided in the facility. These include whether or not the facility provides: (1) long-term care, and if so, if there are Medicaid and/or Medicare certified beds, or ICF/MR beds; (2) nursing/medical care or supervises self-administered medications; (3) help with bathing, dressing, shopping, walking, eating, communication; and (4) 24-hour nursing care. We will use the additional questions to serve as a check for the initial facility type classification.

We use the following definitions:

CCRC:
1) categorized as such in facility type
Or
Answer TRUE to the following:
1) at least 1 of the ADL service questions
2) 24-hour nursing is available

ALR:

There are many of the facility types listed above that may be an ALR. We categorize individuals as living in an assisted living facility if the facility definition is:
5) Assisted living
6) Board & care home
7) Domiciliary care facility
8) Personal care facility

Or:
1) Answer TRUE to at least 1 of the ADL service questions
2) Answer FALSE to the 24-hour nursing care

ILC:
We feel that none of these can reliably be identified as an ILC, either using the services or the self-identified facility type.

For those living in the community, the respondent gets a slightly different list of options to selection as what "best describes their housing site":
1) Retirement community
2) Senior citizens housing
3) Assisted living facility
4) Continuing care community
5) Stages living community
6) Retirement apartments
7) Church-provided housing
8) Personal or residential care home

We use individuals living in four categories: retirement communities, senior citizens housing, assisted living facility and continuing care communities. There are also follow-up questions about the type of the services available. These questions include whether or not the individual has access to: (1) personal care; (2) prepared meals; (3) cleaning services (4) laundry services (5) help with medication; (6) transportation; and (7) recreational services. In addition, we know if these services are included in the housing cost, and if there is an age requirement in order to live there. Finally, the survey asks if seriously ill, can you remain?" If yes, "Is care provided in another part of facility?" We will use these follow-up questions as checks for the initial classification.

We use the following definitions:
CCRC:
Indicate that the community was a continuing care community or one that:
1) offers prepared meals
2) offers help with personal care and/or medication
3) allows one to remain if seriously ill

ALR:
Indicate that the community was an assisted living facility, retirement community, or senior citizen housing that:

1) offers prepared meals
2) offers help with personal care and/or medication
3) includes the services in the housing cost

ILC:
Indicate that the community is a retirement community or senior citizen housing and it:
1) offers prepared meals
2) does *not* offer help with personal care or medication
3) includes the services in the housing cost
4) cannot remain if become seriously ill

Table 1: Characteristics to Differentiate Between Senior Care Housing Types

	ILC	*ALR*	*CCRC*
Rent vs. Own or Entry Fee	Rent	Rent	Either
Meals	Yes	Yes	Yes
Assistance with ADLs (bathing, dressing, toileting, ambulating, transferring and eating)	No	Yes	Yes
Nursing available	No	No	Yes

Table 2: Seniors in Private Residences

		HRS	NLTCS	MCBS
N		10969	5070	8967
Demographics				
	ave age	74.7	76.8	75.0
	med age	74.0	76.0	74.0
	# children	3.2	2.7	3.1
	% african-american	8%	7%	9%
	% hispanic	5%	5%	2%
	% other	2%	2%	3%
	% married	57%	50%	56%
	% male	44%	38%	44%
	# individuals in household	2.01		2.0
Health				
	Number of ADLs (Out of 6)	0.53	1.20	1.48
	Number of IADLs (Out of 3)	0.44	1.05	0.37
	BMI - men	27.04	26.64	26.8
	BMI - women	26.22	26.90	26.7
	currently smoke	17%	9%	11%
	currently drink	45%	24%	
	doctor visits	0.45	1.24	0.5
	in-house help (paid)	9%		
	in-house help (paid or unpaid)			13%
Health Insurance				
	Medicare	94%	98%	100%
	Medicaid	8%	14%	11%
	Private HI	64%	52%	67%
	LTCI	13%	9%	3%
Income - % who have				
	Annual Earnings	18%		14%
	SS income	93%	97%	
	SSI income	4%	5%	
	disability	0.6%		
	investment income	68%		
	pension income	40%	45%	
Income - average amounts of recievers				
	Annual Earnings	$30,518		
	SS income	$10,384	$9,893	
	SSI income	$2,581	$3,586	
	disability	$10,127		
	investment income	$15,648		
	pension income	$17,177	$11,803	
	total household income	$49,296	$30,731	$31,508
	median household income	$29,867	$22,500	$24,000
Assets				
	% own home	79%	73%	
	average value of primary home if own	$189,465	$192,845	
	Net worth	$495,026		
Debts				
	% who have mortgage outstanding	20%	21%	
	average amount of mortage if have	$85,224	$65,986	
	% net value on all debt >0	21%		
	average net debt if debt >0	$11,306		
Financial Assistance				
	% get help from children	5.63%		
	average amount if >0	$3,809		
	% get help from friends/relatives	1.63%		
	average amount if >0	$4,944		
	% get help from parents	0.36%		
	average amount if >0	$6,672		

Table 3: Independent Living Communities

		HRS	NLTCS
N		93	102
Demographics			
	ave age	81.35	82.5
	med age	83.00	84.0
	# children	3.13	1.4
	% african-american	8.15%	2%
	% hispanic	5.69%	0%
	% other	3.20%	8%
	% married	23.06%	12%
	% male	29.20%	27%
	# individuals in household	1.33	
Health			
	Number of ADLs (Out of 6)	0.99	2.44
	Number of IADLs (Out of 4 for HRS, NLTCS, out of 3 for MCBS)	0.75	2.05
	BMI - men	25.18	27.72
	BMI - women	26.02	25.27
	currently smoke	10%	4%
	currently drink	32%	16%
	doctor visits	0.48	1.24
	in-house help (paid)	15.49%	
	in-house help (paid or unpaid)		
Health Insurance			
	Medicare	99%	100%
	Medicaid	17%	24%
	Private HI	55%	43%
	LTCI	14%	9%
Income - % who have			
	Annual Earnings	2%	
	SS income	92%	98%
	SSI income	14%	8%
	disability	0%	
	investment income	63%	
	pension income	41%	38%
Income - average amounts of recievers			
	Annual Earnings	$3,862	
	SS income	$10,052	$9,603
	SSI income	$3,650	$2,125
	disability	--	
	investment income	$5,645	
	pension income	$33,815	$12,854
	total household income	$33,236	$22,478
	median household income	$18,144	$13,500
Assets			
	% own home	0.00%	10.78%
	Net worth	$173,102	
Debts			
	% who have mortgage outstanding	0.00%	9.09%
	average amount of mortage if have	--	N/A
	% net value on all debt >0	8.60%	
	average net debt if debt >0	$4,737	
Financial Assistance			
	% get help from children	7.53%	
	average amount if >0	$3,055	
	% get help from friends/relatives	1.08%	
	average amount if >0	$500	
	% get help from parents	0.00%	
	average amount if >0	--	

Table 4: Assisted Living Residents

		NLTCS	MCBS
N		72	66
Demographics			
	ave age	83.0	84.9
	med age	83.0	85.0
	# children	1.8	2.1
	% african-american	0%	0%
	% hispanic	0%	3%
	% other	2%	0%
	% married	19%	21%
	% male	17%	23%
	# individuals in household		1.3
Health			
	Number of ADLs (Out of 6)	3.81	2.47
	Number of IADLs (Out of 4 for HRS, NLTCS, out of 3 for MCBS)	3.06	1.40
	BMI - men	25.63	24.00
	BMI - women	25.46	23.85
	currently smoke	14%	6%
	currently drink	11%	
	doctor visits	1.30	0.50
	in-house help (paid)		
	in-house help (paid or unpaid)		39.8%
Health Insurance			
	Medicare	97%	100%
	Medicaid	29%	15%
	Private HI	50%	59%
	LTCI	22%	5%
Income - % who have			
	Annual Earnings		4%
	SS income	99%	
	SSI income	9%	
	disability		
	investment income		
	pension income	93%	
Income - average amounts of recievers			
	Annual Earnings		
	SS income	$9,918	
	SSI income	$2,470	
	disability		
	investment income		
	pension income	$12,440	
	total household income	$22,903	$33,237
	median household income	$17,500	$21,600
Assets			
	% own home	4.17%	
	average value of primary home if own	N/A	
	Net worth		
Debts			
	% who have mortgage outstanding	0.00%	
	average amount of mortage if have	$0	
	% net value on all debt >0		
	average net debt if debt >0		

Table 5: Continuing Care Retirement Communities

		HRS	NLTCS	MCBS
N		68	143	170
Demographics				
	ave age	82.12	83.9	84.7
	med age	83.00	84.0	85.0
	# children	2.35	2.1	2.06
	% african-american	0%	5%	9%
	% hispanic	0%	2%	2%
	% other	3%	0%	0.0%
	% married	25%	21%	26%
	% male	21%	23%	25%
	# individuals in household	1.29		1.43
Health				
	Number of ADLs (Out of 6)	0.98	4.34	2.21
	Number of IADLs (Out of 3)	1.02	--	1.19
	BMI - men	25.48	--	26.31
	BMI - women	26.20	--	24.04
	currently smoke	0%	--	8%
	currently drink	43%	--	
	doctor visits	0.47	--	0.53
	in-house help (paid)	23%		
	in-house help (paid or unpaid)			32%
Health Insurance				
	Medicare	100%	--	100%
	Medicaid	1%	--	19.5%
	Private HI	71%	--	63%
	LTCI	18%	--	2%
Income - % who have				
	Annual Earnings	1.89%		2.40%
	SS income	100.00%	95.72%	
	SSI income	0.00%	7.16%	
	disability	0.00%		
	investment income	84.91%		
	pension income	47.17%	35.82%	
Income - average amounts of recievers				
	Annual Earnings	$20,000		
	SS income	$11,134	$10,259	
	SSI income	--	$4,505	
	disability	--		
	investment income	$12,718		
	pension income	$19,340	$14,168	
	total household income	$41,834	$45,524	$34,339
	median total household income	$33,108	$21,000	$21,312
Assets				
	% own home	20.75%	22.38%	
	average value of primary home if own	$199,375	$125,396	
	Net worth	$620,399		
Debts				
	% who have mortgage outstanding	1.89%	6.25%	
	average amount of mortage if have	$40,000	--	
	% net value on all debt >0	5.66%		
	average net debt if debt >0	$34,561		
Financial Assistance				
	% get help from children	3.77%		
	average amount if >0	$1,676		
	% get help from friends/relatives	1.89%		
	average amount if >0	$500		
	% get help from parents	0.00%		
	average amount if >0	--		

Table 6: Transitions Between 1998 and 2004 in the HRS

		2004						
		Community	**ILC**	**ALR**	**CCRC**	**Nursing Home**	**Died**	**Total**
	Community	10116	72	10	45	436	3590	14269
	ILC	7	15	0	4	3	36	65
1998	ALR	1	2	1	1	0	5	10
	CCRC	2	2	0	12	4	24	44
	Nursing Home	15	2	0	2	31	360	410
	Total	10,141	93	11	64	474	4,015	14798

*828 of the Community Dwellers and 4 of the CCRC residents are new to the HRS survey since 1998

Table 7: Transitions between 1999 and 2004 in the NLTCS

	2004								
		Community	**ILC**	**ALR**	**CCRC**	**Nursing Home**	**Dead**	**Not in Survey**	**Total**
	Community	2,416	32	19	91	173	349	2426	5,506
	ILC	10	4	1	6	9	5	67	102
1999	ALR	2	0	0	3	0	1	20	26
	CCRC	3	1	0	3	1	0	56	64
	Not in Survey	2,639	65	52	40	0	0	--	2,796
	Total	5,070	102	72	143	183	355	2569	8,494

Table 8: Transitions between 2002 and 2004 in the MCBS

		2004						
		Community	**ILC**	**ALR**	**CCRC**	**Nursing Home**	**Dead**	**Total**
2002	**Community**	2,494	0	*	*	61	123	2,568
	ILC	*	0	0	0	0	0	*
	ALR	*	*	12	0	*	*	*
	CCRC	*	0	*	29	*	*	42
	Nursing Home	*	0	*	*	104	33	110
	Total	2,510	*	*	40	168	163	2,738

Notes: *=not reported based on CMS policy
dead and other categories not mutually exclusive - individual must be alive for part of survey year to be counted

Table 9: Baseline Characteristics of Individuals who Transition Into Care Facilities

		ILC		CCRC	
		HRS	NLTCS	HRS	NLTCS
N		64	32	43	35
Demographics					
	ave age	77.0	80.1	77.1	78.7
	med age	78.0	79.0	78.0	79.0
	# children	3.2	1.6	2.5	2.5
	% african-american	7%	2%	0%	3%
	% hispanic	3%	0%	0%	0%
	% other	4%	0%	4%	0%
	% married	52%	23%	45%	31%
	% male	32%	35%	28%	16%
	# individuals in household	1.7		1.6	
Health					
	Number of ADLs (Out of 6)	0.48	1.18	0.64	1.27
	Number of IADLs (Out of 4)	0.37	0.85	0.11	0.75
	BMI - men	25.56	26.76	25.33	25.20
	BMI - women	26.7	24.80	25.9	25.50
	currently smoke	7%	10%	0%	6%
	currently drink	52%	7%	52%	27%
	doctor visits	0.58	1.12	0.48	0.63
	in-house help (paid)	15%		14%	
Health Insurance					
	Medicare	98%	100%	99%	100%
	Medicaid	6%	7%	3%	18%
	Private HI	67%	57%	72%	69%
	LTCI	10%	10%	18%	17%
Income - % who have					
	Annual Earnings	8%		10%	
	SS income	97%	97%	90%	97%
	SSI income	5%	4%	0%	12%
	disability	2%		2%	
	investment income	75%		88%	
	pension income	48%	41%	55%	24%
Income - average amounts of recievers					
	Annual Earnings	$6,998		$5,751	
	SS income	$8,709	$10,599	$9,449	$7,835
	SSI income	$1,332	$8,400	--	$4,539
	disability	$4,056		$7,128	
	investment income	$10,692		$13,946	
	pension income	$10,509	$10,904	$14,546	$9,920
	total household income	$29,859	$14,316	$40,211	$17,340
Assets					
	% own home	66%	47%	83%	49%
	average value of primary home if own	$97,512	$99,558	$135,189	$61,589
	Net worth	$244,023		$398,018	
Debts					
	% who have mortgage outstanding	9%	--	7%	--
	average amount of mortage if have	$69,120	--	$60,846	--
	% net value on all debt >0	19%		2%	
	average net debt if debt >0	$5,132		$3,000	
Financial Assistance					
	% get help from children	8%		0%	
	average amount if >0	$2,901		--	
	% get help from friends/relatives	0%		0%	
	average amount if >0	--		--	
	% get help from parents	0%		0%	
	average amount if >0	--		--	

Table 10: Determinants of Staying in Private Residences

	HRS	NLTCS
Male	0.0087**	0.0092
	(0.0038)	(0.0068)
Age	-0.0035***	-0.0041**
	(0.0004)	(0.0016)
Age squared	-0.0000	0.0001
	(0.0000)	(0.0001)
Married	0.0126***	0.0164**
	(0.0044)	(0.0077)
Number of Children	0.0016*	0.0034**
	(0.0009)	(0.0016)
Number of Doctor Visits	-0.0003***	-0.0021
	(0.0001)	(0.0019)
LTCI	0.0074	0.0053
	(0.0049)	(0.0106)
Private Health Insurance	0.0042	-0.0047
	(0.0040)	(0.0063)
Medicaid	-0.0027	-0.0049
	(0.0069)	(0.0111)
Household Income	0.0098**	-0.0232*
	(0.0049)	(0.0123)
Own House	0.0153***	0.0166**
	(0.0053)	(0.0082)
Observations	10262	2351

Robust standard errors in parentheses
* significant at 10%; ** significant at 5%; *** significant at 1%

Appendix Table 1

Study	Reported Definition	Similar to Classification	Median Income[1]	Year (of data)
Understanding Seniors Housing Demand, Choices, and Behavior (2003)	Equity ownership with services	CCRC	33,600	2000
	Market rental with services	ILC/ALF	20,400	2000
	Nursing home	SNF	18,840	2000
	Ownership in all-ages community	Private Residences	39,200	2000
	Rental in all-ages community	Private Residences	16,000	2000
Continuing Care Retirement Communities: 2005 Profile (2005)	IL component- CCRC	CCRC	48,750	2005
	AL component- CCRC	CCRC	29,000	2005
	Nursing component- CCRC	CCRC	27,500	2005
Income Confirmation Study of Assisted Living Residents and the Age 75+ Population (1999)	Assisted living	ALF	15,000-19,999	1999
National Survey of Assisted Living Residents: Who is the Customer? (1998)	Assisted living	ALF	15,000-19,999	1998
Mullen and Singer (2008)	75 and older population	Private Residences	20,467	2004

1: These are nominal dollars as reported in the publications. For direct comparisons, one could adjust by CPI, CPI-Medical Care Index or CPI-Housing.

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