Check for updates

Research on Aging
35(1) 50–77
© The Author(s) 2013
Reprints and permission:
sagepub.com/journalsPermissions.nav
DOI: 10.1177/0164027511434331
http://roa.sagepub.com

The Asset and Income Profiles of Residents in Seniors Housing and Care Communities: What Can Be Learned From Existing Data Sets

Norma B. Coe[1] and Melissa A. Boyle[2]

Abstract

The authors use existing, nationally representative surveys to assess the economic characteristics of individuals in three categories of seniors housing and care facilities: independent living communities (ILCs), assisted living residences (ALRs), and continuing care retirement communities (CCRCs). The findings highlight the strengths and weaknesses of using the Health and Retirement Study, National Long-Term Care Survey, and Medicare Current Beneficiary Survey to describe this segment of the population. The results suggest that residents in ILCs and ALRs have lower average incomes than the average costs of these care communities. Conversely, CCRC residents have higher incomes and more assets than those living in private homes, suggesting that CCRCs attract the wealthiest seniors. However, longitudinal analysis is prohibited by the small sample sizes.

Keywords

aging, housing, living arrangements, long-term care

[1]Center for Retirement Research at Boston College, Chestnut Hill, MA, USA
[2]College of the Holy Cross, Worcester, MA, USA

Corresponding Author:
Norma B. Coe, PhD, Center for Retirement Research at Boston College, 140 Commonwealth Avenue, Chestnut Hill, MA 02467-3808, USA
Email: norma.coe@bc.edu

Seniors housing and care communities, designed to address the needs of seniors, are among America's largest growth industries. This broad term includes myriad communities, including active adult (aged 55 years and older) housing, independent living communities (ILCs), assisted living residences (ALRs), and continuing care retirement communities (CCRCs). Although historically, the demand for seniors housing and care communities came from individuals relying heavily on public assistance, Stearns and Morgan (2001) indicated that over the past 15 years, more options have become available as middle and higher wealth individuals have shown greater interest in these care communities as a way to support themselves during increasing functional dependency. The seniors housing and care industry has grown to over 38,000 communities, housing more than 1 million seniors in the United States. These communities have grown to outnumber traditional skilled nursing facilities by more than three to one and provide housing and care for seniors who may require social environments and/or assistance with daily needs but do not require 24-hour skilled nursing care (Stearns & Morgan, 2001).

Despite this growth in popularity, there is little academic research on the individuals choosing these housing and care communities. Most of what is known regarding the income, assets, age, and marital status of individuals in seniors housing and care communities comes from industry studies. The thrust of these studies is that many individuals in ILCs, ALRs, and CCRCs cannot afford their living arrangements on their incomes alone. That is, the annual rent and fees at these institutions often exceed residents' incomes from Social Security, pensions, and any income from work or investments. For example, *The State of Seniors Housing 2008* reported that the median yearly base rent and fees totaled $24,224 for free-standing ILCs and $34,882 for free-standing ALRs, and CCRCs had lower median annual costs than ALRs but required substantial entrance fees (American Seniors Housing Association, National Investment Center for the Seniors Housing & Care Industry, & American Association of Homes and Services for the Aging, 2008). However, industry reports have found that the median income of an individual in an ILC is $20,400 and in a CCRC is $33,600 and that 64% of ALR residents had annual incomes of less than $25,000 (Assisted Living Federation of America & National Investment Center for the Seniors Housing & Care Industry, 1998; National Investment Center for the Seniors Housing & Care Industry, 2003). Together, these numbers imply that an individual in an ILC or ALR has a lower median income than the median annual cost of the residence, and the median income of a CCRC resident would only marginally cover the median annual cost, not including the entrance fee.

However, most of the industry studies are based on small-sample surveys or institutions within particular geographic areas or ownership types. Furthermore, they often capture point-in-time measures of income and wealth but do not address the wider issue of how individuals pay for these services over time or consider survey respondents' lifetime incomes and wealth. It is important to assess if the changing patterns in long-term care use, and the money spent thereon, will have an impact on the future use and costs for Medicaid, mainly through changes in nursing home demand and the assets available to pay for that care. In this study, we explore whether existing, nationally representative surveys can help address the lingering questions of who is served by these seniors housing and care communities, how they pay for these services, and what it might mean for the ability to pay for future health care needs.

We examine income and asset information that is readily available in three nationally representative surveys. Using data from the Health and Retirement Study (HRS), the National Long-Term Care Survey (NLTCS), and the Medicare Current Beneficiary Survey (MCBS), we document the characteristics of individuals using seniors housing and care communities (ILCs, ALRs, and CCRCs) and compare them with the characteristics of those living in private residences. By providing such information, this study builds a strong base for further research, highlighting what can and cannot be measured in existing surveys.

Data and Methods

We use three data sets to examine the financial characteristics of residents in seniors housing and care facilities. We examine the 2004 data for each of the three data sets, using the provided survey weights to account for survey design. The samples are limited to individuals aged 65 years and older to increase comparability across the three data sets. To compare the characteristics of individuals in each type of living arrangement, we conduct *t* tests. We match the 2004 data to earlier waves (1998 for the HRS and 1999 for the NLTCS) of the surveys to see if we can gain any longitudinal insight from the existing data sets.[1]

HRS

The HRS began in 1992 with a nationally representative sample of the noninstitutionalized American population born between 1931 and 1941 and their spouses. These individuals are followed every 2 years. A second survey, the

Study of Assets and Health Dynamics Among the Oldest Old, was first administered in 1993 to a nationally representative sample of noninstitutionalized Americans born in 1923 or earlier and their spouses. These individuals were reinterviewed in 1995 and were merged with the HRS sample in 1998. Two new cohorts, the Children of the Depression Age cohort (born between 1924 and 1930) and the War Baby cohort (born between 1942 and 1947), were also added at that time. These individuals continue to be interviewed every 2 years, even if they enter nursing facilities.

Currently, the HRS surveys more than 22,000 Americans over the age of 50 years every 2 years. By design, the HRS oversamples African Americans, Hispanics, and residents of Florida. However, the sample design does not allow for any oversampling of seniors housing and care communities.[2] The study focuses on measuring physical and mental health, insurance coverage, financial status, family support systems, labor market status, and retirement planning.

NLTCS

The 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 years and older). It also tracks health expenditures, Medicare service use, and the availability of personal, family, and community resources for caregiving.[3] The sample was selected by sampling from the current Medicare enrollment files in 1982 and is augmented with new enrollees every cycle. Unlike the HRS, even the original sample contains both community and institutionalized elderly.

At each wave, a screener questionnaire is administered, which divides the sample into three groups: the nondisabled (frequently called screen-outs), those disabled but living in the community, and those disabled and living in institutions. Each sample subset receives a slightly different questionnaire, and there is more detailed information about respondents with limitations in activities of daily living (ADLs) or instrumental ADLs (IADLs) and the institutionalized, who represent approximately 65% of the sample.

MCBS

The MCBS is a rotating panel of aged, disabled, and institutionalized Medicare beneficiaries, with an oversampling of older individuals. The MCBS Cost and Use files link Medicare claims to survey-reported information, including information on the use and cost of all types of medical services,

Table 1. Characteristics to Differentiate Between Seniors Housing and Care Communities

Characteristic	ILCs	ALRs	CCRCs
Rent versus 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

Note: ADL = activity of daily living; ALR = assisted living residence; CCRC = continuing care retirement community; ILC = independent living community.

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.[4] We limit the MCBS sample to those aged 65 years and older, eliminating younger individuals eligible for Medicare because of disability.

Defining Seniors Housing and Care Communities

Because these surveys do not focus on individuals living in seniors housing and care communities, defining the living arrangement is key to comparability, both between surveys and with the industry reports. This section discusses in detail the questions available in the existing data sets and how they can be used to categorize the place of residence.

We identify the three types of seniors housing and care communities on the basis of their industry definitions, using four questions to differentiate the types of communities, as shown in Table 1. These three types of communities are ILCs, ALRs, and CCRCs. 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. These definitions are not without caveats. The main concern is the 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 with industry studies that target market-rate facilities in their surveys. Another concern is whether we are picking up all

types of residents who live in CCRCs in the proportions in which they are represented in the CCRC properties. Because of the health limitations of the residents, we might be missing a disproportionate number of CCRC residents living in the skilled nursing facility wings of the properties. To the extent that this is true, this will bias our estimates of health, and likely wealth, upward. Conversely, we might be missing some CCRC residents who live in the less care intensive areas if they report that 24-hour nursing home care is not available because they do not use that service. To the extent that we miss lower care intensity CCRC residents, our estimates of the average age and health, and likely wealth, will be biased downward.

Health, Wealth, and Income Variables

We report three objective measures of health that are comparable between the three surveys. The first is limitations in performing ADLs: walking, dressing, bathing, eating, toileting, and getting in and out of bed.[5] The second is limitations in performing IADLs: managing money, grocery shopping, and preparing meals. Finally, the surveys also include self-reported height and weight, making it possible to calculate an individual's body mass index. We also have some information about health care behavior, as measured by drinking, smoking, and the number of doctor visits.[6] It is also possible to determine if an individual is paying for in-home care in the HRS or has any in-home care (paid or unpaid) from the MCBS.

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, by survey design. Participants report the amounts of income from a variety of sources: earnings, Social Security, Supplemental Security Income, disability insurance, investments, and pensions. The NLTCS also collects income information, but from fewer sources: Social Security, Supplemental Security Income, and pension income only. Both surveys also have measures of total household income. The income information in the MCBS is quite limited. We know only labor force participation and 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.

The information on wealth is somewhat scarce in most of the data sources. The most complete information is found in the HRS, in which information is available on home ownership, the value of the home, mortgages, debts, and net worth. The NLTCS has information only 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 as a proxy for wealth information from the data. For example, Medicaid coverage clearly implies low wealth. In addition, the surveys provide some information on households' ability to preserve income and wealth as they age; all three surveys provide information on whether an individual carries long-term care insurance or private health insurance, which insures against large out-of-pocket health spending. The HRS also provides information on whether an individual receives financial assistance from children, friends, or parents and how much assistance is received.

Results

Seniors in Private Residences

Table 2 provides descriptive statistics for individuals aged 65 years 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 two-person households. All three data sets 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 ($p < .001$). 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 ($p < .001$) and less likely to be married ($p < .001$).

The area in which the surveys differ the most is the measurement of health. The difference is likely attributable to the questionnaires and 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 ($p < .001$). 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 more similar, while the NLTCS remains the outlier. This suggests that a slight unhealthy bias remains in the NTLCS sample even after the sampling weights are applied.

From the three data sets, the picture about income, both the sources and the amounts, is quite consistent for seniors living in private residences. Eighteen percent still participate in the labor force after age 65, making on

Table 2. Seniors in Private Residences

Variable	HRS		NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	n = 5,070[a]	95% Confidence Interval	n = 8,967[a]	95% Confidence Interval
Demographics						
Average age (years)	74.7	[74.6, 74.8]	76.8	[76.6, 77.0]	75.0	[74.9, 75.1]
Median age (years)	74.0		76.0		74.0	
Average number of children	3.2	[3.2, 3.3]	2.7	[2.7, 2.8]	3.1	[3.06, 3.14]
Percentage African American	8%	[7%, 8%]	7%	[6%, 7%]	9%	[8%, 10%]
Percentage Hispanic	5%	[5%, 6%]	5%	[5%, 6%]	2%	[2%, 2%]
Percentage "other" race	2%	[2%, 2%]	0%	[0%, 1%]	3%	[3%, 3%]
Percentage married	57%	[56%, 58%]	50%	[48%, 51%]	56%	[55%, 57%]
Percentage male	44%	[43%, 45%]	38%	[37%, 39%]	44%	[43%, 45%]
Number of individuals in household	2.01	[1.99, 2.03]			1.95	[1.93, 1.97]
Health						
Number of ADL limitations (out of 6)	0.40	[0.4, 0.4]	1.20	[1.16, 1.25]	0.57	[0.55, 0.60]
Number of IADL limitations (out of 3)	0.44	[0.4, 0.5]	0.36	[0.35, 0.38]	0.37	[0.35, 0.39]
Average BMI, men (kg/m^2)	27.04	[26.96, 27.12]	26.63	[26.49, 26.76]	26.90	[26.81, 26.98]
Average BMI, women (kg/m^2)	26.22	[26.12, 26.32]	26.87	[26.69, 27.04]	26.7	[26.58, 26.82]
Percentage who currently smoke	17%	[16%, 18%]	9%	[8%, 10%]	11%	[10%, 12%]
Percentage who currently drink	45%	[44%, 46%]	24%	[23%, 26%]		
Average number of doctor visits (last month)			1.24	[1.18, 1.29]		

(Continued)

Table 2. (Continued)

Variable	HRS		NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	*n* = 5,070[a]	95% Confidence Interval	*n* = 8,967[a]	95% Confidence Interval
Average number of doctor visits (per year)	5.43	[5.23, 5.62]			5.42	[5.29, 5.55]
Percentage with in-house help (paid)	9%	[8%, 9%]				
Percentage with in-house help (paid or unpaid)					13%	[12%, 14%]
Health insurance						
Percentage with Medicare	94%	[94%, 95%]	98%	[98%, 98%]	100%	—
Percentage with Medicaid	8%	[8%, 9%]	14%	[13%, 15%]	11%	[10%, 12%]
Percentage with private health insurance	64%	[63%, 65%]	52%	[51%, 53%]	67%	[66%, 68%]
Percentage with LTCI	13%	[13%, 14%]	9%	[8%, 10%]	3%	[3%, 3%]
Income (percentage who have each source)						
Annual earnings	18%	[17%, 19%]			14%	[13%, 15%]
Social Security income	93%	[92%, 93%]	97%	[96%, 97%]		
SSI	3%	[3%, 4%]	5%	[4%, 5%]		
Disability	0.6%	[0%, 1%]				
Investment income	71%	[70%, 72%]				
Pension income	42%	[41%, 43%]	45%	[43%, 46%]		

(Continued)

Table 2. (Continued)

Variable	HRS		NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	*n* = 5,070[a]	95% Confidence Interval	*n* = 8,967[a]	95% Confidence Interval
Income (average amounts among individuals who receive each type)						
Annual earnings	$30,518	[$28,446, $32,589]				
Social Security income	$10,384	[$10,287, $10,481]	$9,893	[$9,766, $10,019]		
SSI	$65	[$17, $114]	$3,586	[$3,491, $3,681]		
Disability	$10,127	[$9,202, $11,053]				
Investment income	$15,648	[$14,634, $16,663]				
Pension income	$17,177	[$14,954, $19,401]	$11,803	[$11,485, $12,121]		
Total household income	$49,296	[$47,649, $50,943]	$30,731	[$29,958, $31,504]	$31,508	[$30,348, $32,668]
Median total household income	$29,867	—	$22,500		$24,000	
Assets						
Percentage who own home	79%	[79%, 80%]	75%	[74%, 76%]		
Average value of primary home if owned	$189,465	[$179,435, $199,494]	$192,845	[$180,006, $205,684]		
Average net worth	$495,026	[$467,368, $522,685]				
Median net worth	$206,000	—				
Debts						
Percentage who have mortgage outstanding	20%	[19%, 21%]	22%	[21%, 23%]		
Average mortgage balance among holders	$85,224	[$81,499, $88,949]	$65,986	[$64,144, $67,827]		

(Continued)

Table 2. (Continued)

Variable	HRS n = 10,969[a]	HRS 95% Confidence Interval	NLTCS n = 5,070[a]	NLTCS 95% Confidence Interval	MCBS n = 8,967[a]	MCBS 95% Confidence Interval
Percentage with debt outstanding	21%	[20%, 21%]				
Average debt among debt holders	$11,306	[$9,532, $13,081]				
Financial assistance						
Percentage who get help from children	5.09%	[4.68%, 5.50%]				
Annual average among recipients	$3,809	[$3,317, $4,301]				
Percentage who get help from friends/relatives	1.90%	[1.64%, 2.15%]				
Annual average among recipients	$5,529	[$5,525, $5,532]				
Percentage who get help from parents	0.40%	[0.28%, 0.52%]				
Annual average among recipients	$6,672	[$3,405, $9,938]				

Source: Authors' calculations from the 2004 HRS, NLTCS, and MCBS.
Note: ADL = activity of daily living; BMI = body mass index; HRS = Health and Retirement Study; IADL = instrumental activity of daily living; LTCI = long-term care insurance; MCBS = Medicare Current Beneficiary Survey; NLTCS = National Long-Term Care Survey; SSI = Supplemental Security Income.
a. Unweighted.

average $30,000 per year. Almost everyone is collecting Social Security income, averaging around $10,000 per year in benefits. About two thirds are receiving investment income, averaging over $15,000, and between 40% and 45% are receiving pension income. The median of total household income is between $24,000 and $30,000, while the mean total household income is between $30,000 and $50,000.

Although the asset information is more limited, 80% of seniors in private residences still own houses, even at advanced ages, worth just under $200,000 on average. Twenty percent of these homeowners are still carrying mortgages. Still, after accounting for debt, mean net worth excluding defined benefit pension and social security wealth is quite high, almost $500,000. 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 largely financially independent.

ILCs

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

The first thing to note in Table 3 is the small sample size. Because these surveys are not targeted by the type of residence, the number of individuals living in these specialized communities is quite limited, with just about 100 observations each in 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 has more health limitations ($p < .001$) and sees physicians more than the HRS sample ($p < .001$). In addition, the age ($p < .001$), gender ($p = .014$), marital status composition ($p < .001$), and health characteristics, other than doctor visits, of those living in ILCs are significantly different from those living in the private community (p values range from .018 for drinking to <.001 for ADL and IADL limitations).

The composition of income for those living in ILCs 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. Although average pension income is slightly higher ($p = .612$) 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 ($p = .022$).

Table 3. Independent Living Communities

Variable	HRS		NLTCS	
	n = 10,969[a]	95% Confidence Interval	n = 102[a]	95% Confidence Interval
Demographics				
Average age (years)	81.35	[81.23, 81.48]	82.5	[80.9, 84.2]
Median age (years)	83.00		84.0	
Average number of children	3.13	[3.09, 3.18]	1.4	[1.2, 1.7]
Percentage African American	8.15%	[7.64%, 8.67%]	2%	[0%, 5%]
Percentage Hispanic	5.69%	[5.26%, 6.13%]	0%	
Percentage "other" race	3.20%	[2.87%, 3.53%]	0%	
Percentage married	23.06%	[22.27%, 23.86%]	12%	[6%, 19%]
Percentage male	29.20%	[28.34%, 30.05%]	27%	[18%, 36%]
Number of individuals in household	1.33	[1.32, 1.34]		
Health				
Number of ADL limitations (out of 6)	0.66	[0.63, 0.68]	2.44	[2.13, 2.75]
Number of IADL limitations (out of 3)	0.75	[0.73, 0.76]	0.77	[0.59, 0.95]
Average BMI, men (kg/m^2)	25.18	[25.12, 25.25]	28.39	[27.26, 29.51]
Average BMI, women (kg/m^2)	26.02	[25.91, 26.12]	25.40	[24.42, 26.38]
Percentage who currently smoke	10%	[9%, 10%]	4%	[0%, 7%]
Percentage who currently drink	32%	[31%, 33%]	16%	[9%, 23%]
Average number of doctor visits (last month)			1.29	[0.89, 1.68]
Average number of doctor visits (per year)	5.72	[5.60, 5.83]		
Percentage with in-house help (paid)	15.49%	[14.81%, 16.17%]		
Percentage with in-house help (paid or unpaid)				

(Continued)

Table 3. (Continued)

Variable	HRS		NLTCS	
	n = 10,969[a]	95% Confidence Interval	n = 102[a]	95% Confidence Interval
Health insurance				
Percentage with Medicare	99%	[98%, 99%]	100%	[99%, 100%]
Percentage with Medicaid	17%	[16%, 18%]	24%	[15%, 32%]
Percentage with private health insurance	55%	[54%, 56%]	43%	[33%, 53%]
Percentage with LTCI	14%	[13%, 14%]	9%	[4%, 15%]
Income (percentage who have)				
Annual earnings	3%	[2%, 3%]		
Social Security income	95%	[95%, 96%]	98%	[95%, 100%]
SSI	12%	[11%, 13%]	8%	[2%, 13%]
Disability	0%			
Investment income	68%	[67%, 68%]		
Pension income	42%	[41%, 43%]	38%	[29%, 48%]
Income (average amounts of receivers)				
Annual earnings	$3,862	[$3,838, $3,887]		
Social Security income	$10,052	[$9,950, $10,154]	$9,603	[$8,842, $10,364]
SSI	$3,650	[$3,604, $3,696]	$2,125	[$0, $4,979]
Disability	—			
Investment income	$5,645	[$5,419, $5,872]		
Pension income	$33,815	[$30,814, $36,815]	$12,854	[$9,657, $16,051]
Average total household income	$33,236	[$31,952, $34,521]	$22,478	[$17,082, $27,873]
Median total household income	$18,144	—	$13,500	—

(Continued)

Table 3. (Continued)

Variable	HRS		NLTCS	
	n = 10,969[a]	95% Confidence Interval	*n* = 102[a]	95% Confidence Interval
Assets				
Percentage who own home	0.00%		12.76%	[6.17%, 19.34%]
Average value of primary home if owned			—	
Average net worth	$173,102	[$168,351, $177,853]		
Median net worth	$50,000			
Debts				
Percentage who have mortgage outstanding	0.00%		15.99%	[8.44%, 23.54%]
Average mortgage balance among holders	—		$430,732	[$422,102, $439,361]
Percentage with debt outstanding	4.76%	[4.36%, 5.17%]		
Average debt among debt holders	$4,737	[$4,360, $5,114]		
Financial assistance				
Percentage who get help from children	6.54%	[6.08%, 7.01%]		
Annual average among recipients	$3,055	[$2,734, $3,375]		
Percentage who get help from friends/relatives	0.72%	[0.56%, 0.88%]		
Annual average among recipients	$500	—		
Percentage who get help from parents	0.00%			
Annual average among recipients	—			

Source: Authors' calculations from the 2004 HRS and NLTCS.
Note: ADL = activity of daily living; BMI = body mass index; HRS = Health and Retirement Study; IADL = instrumental activity of daily living; LTCI = long-term care insurance; NLTCS = National Long-Term Care Survey; SSI = Supplemental Security Income.
a. Unweighted.

About one eighth of the ILC residents own homes, which is not surprising considering that ILCs are usually rented units. Although no one states that they paid the majority of the admission fees, the ILC residents report much lower wealth (almost $175,000) than those living in the private community ($p < .001$). Along with this lower wealth, a slightly higher percentage of households report receiving financial help from their children ($p = .184$), although the average amount received is virtually the same. Because of the cross-sectional nature of the data set, it is unclear 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. The small sample sizes prevent us from examining this question in these data sets.

ALRs

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 data set for which it is possible to directly compare ALR and ILC residents. The age ($p = .701$), gender ($p = .103$), and marital status ($p = .216$) profile of ALR residents is similar to that of ILC residents. However, ALR residents are sicker on average, with more ADLs limitations ($p < .001$). The sicker population is not surprising, given that the level of services in ALRs is higher than in ILCs. The lack of demographic differences suggests little to no difference in the population served.

Almost everyone relies on Social Security and pension income, with only 9% getting additional Supplemental Security Income payments and only 4% working for pay. The median and average incomes of ALR residents are very similar to those of ILC residents, as well as the sources of income, with the exception of pensions. According to the NLTCS, 93% of ALR residents have pension income, whereas only 38% of ILC residents enjoy pension income ($p < .001$). This suggests a true underlying difference in the populations served between ILCs and ALRs, despite the demographic similarities.

CCRCs

CCRCs offer a continuum of care options and potentially the highest level of service among the three long-term care living facilities. The residents of these communities are the sickest as measured by ADL and IADL limitations, as can be seen in Table 5. They also tend to be single and female. This

Table 4. Assisted Living Residents

Variable	NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	n = 66[a]	95% Confidence Interval
Demographics				
Average age (years)	83.0	[82.9, 83.2]	84.9	[83.1, 86.7]
Median age (years)	83.0		85.0	
Average number of children	1.8	[1.8, 1.9]	2.1	[1.6, 2.6]
Percentage African American	0%		0%	
Percentage Hispanic	0%		3%	[0%, 7%]
Percentage "other" race	3%	[3%, 3%]	0%	
Percentage married	19%	[19%, 20%]	21%	[11%, 31%]
Percentage male	17%	[16%, 17%]	23%	[13%, 33%]
Number of individuals in household			1.3	
Health				
Number of ADL limitations (out of 6)	3.81	[3.79, 3.84]	1.91	[1.44, 2.38]
Number of IADL limitations (out of 3)	0.35	[0.34, 0.36]	1.40	[1.13, 1.67]
Average BMI, men (kg/m^2)	26.02	[25.94, 26.09]	24.00	[22.90, 25.10]
Average BMI, women (kg/m^2)	25.54	[25.44, 25.64]	23.85	[22.51, 25.19]
Percentage who currently smoke	13%	[13%, 14%]	6%	[0%, 12%]
Percentage who currently drink	11%	[11%, 12%]		
Average number of doctor visits (last month)	1.30	[1.25, 1.35]		
Average number of doctor visits (per year)			6.03	[4.51, 7.55]
Percentage with in-house help (paid)				
Percent with in-house help (paid or unpaid)			39.8%	[27.8%, 51.8%]

(Continued)

Table 4. (Continued)

Variable	NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	n = 66[a]	95% Confidence Interval
Health insurance				
Percentage with Medicare	97%	[97%, 97%]	100%	
Percentage with Medicaid	29%	[28%, 30%]	15%	[6%, 24%]
Percentage with private health insurance	50%	[49%, 51%]	59%	[47%, 71%]
Percentage with LTCI	22%	[21%, 22%]	5%	[0%, 10%]
Income (percentage who have)				
Annual earnings			4%	[0%, 9%]
Social Security income	99%	[99%, 99%]		
SSI	9%	[9%, 10%]		
Disability				
Investment income				
Pension income	93%	[92%, 93%]		
Income (average amounts of receivers)				
Annual earnings				
Social Security income	$9,918	[$9,785, $10,050]		
SSI	$2,470	[$2,465, $2,475]		
Disability				
Investment income				
Pension income	$12,440	[$12,143, $12,736]		
Total household income	$22,903	[$22,433, $23,373]	$33,237	[$20,976, $45,497]
Median household income	$13,500		$21,600	

(Continued)

Table 4. (Continued)

Variable	NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	*n* = 66[a]	95% Confidence Interval
Assets				
Percentage who own home	5.76%	[5.32%, 6.20%]		
Average value of primary home if owned	$35,000	—		
Average net worth				
Median net worth				
Debts				
Percentage who have mortgage outstanding	0.00%			
Average mortgage balance among holders	—			
Percentage with debt outstanding				
Average debt among debt-holders				

Source: Authors' calculations from the 2004 NLTCS and MCBS.
Note: ADL = activity of daily living; BMI = body mass index; IADL = instrumental activity of daily living; LTCI = long-term care insurance; MCBS = Medicare Current Beneficiary Survey; NLTCS = National Long-Term Care Survey; SSI = Supplemental Security Income.
a. Unweighted.

Table 5. Continuing Care Retirement Communities

Variable	HRS		NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	n = 143[a]	95% Confidence Interval	n = 170[a]	95% Confidence Interval
Demographics						
Average age (years)	82.12	[82.0, 82.3]	83.9	[82.8, 85.0]	84.7	[83.6, 85.8]
Median age (years)	83.00		84.0		85.0	
Average number of children	2.35	[2.3, 2.4]	2.1	[1.8, 2.4]	2.06	[1.8, 2.3]
Percentage African American	0%		5%	[1%, 8%]	9%	[5%, 13%]
Percentage Hispanic	0%		2%	[0%, 4%]	2%	[0%, 4%]
Percentage "other" race	3%	[2%, 3%]	0%	[0%, 1%]	0%	
Percentage married	25%	[24%, 26%]	21%	[15%, 28%]	26%	[19%, 33%]
Percentage male	21%	[20%, 22%]	23%	[16%, 30%]	25%	[18%, 32%]
Number of individuals in household	1.29	[1.28, 1.29]			1.43	[1.31, 1.55]
Health						
Number of ADL limitations (out of 6)	0.98	[0.96, 1.00]	4.34	[4.06, 4.61]	2.21	[1.87, 2.55]
Number of IADL limitations (out of 3)	1.02	[0.99, 1.04]	0.05	[0.00, 0.11]	1.19	[1.03, 1.35]
Average BMI, men (kg/m^2)	25.48	[25.44, 25.52]	—		26.31	[25.50, 27.12]
Average BMI, women (kg/m^2)	26.20	[26.07, 26.32]	—		24.04	[23.29, 24.79]
Percentage who currently vsmoke	0%		1.50%	[0.00%, 3.48%]	8%	[4%, 12%]
Percentage who currently drink	43%	[42%, 44%]	0.00			

(Continued)

Table 5. (Continued)

Variable	HRS		NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	n = 143[a]	95% Confidence Interval	n = 170[a]	95% Confidence Interval
Average number of doctor visits (last month)			1.29	[1.18, 1.40]		
Average number of doctor visits (per year)	5.63	[5.52, 5.73]			6.36	[5.33, 7.39]
Percentage with in-house help (paid)	23%	[22%, 24%]				
Percentage with in-house help (paid or unpaid)					32%	[25%, 39%]
Health insurance						
Percentage with Medicare	100%		30.73%	[23.07%, 38.39%]	100%	
Percentage with Medicaid	1%	[1.0%, 1.4%]	16.53%	[10.36%, 22.69%]	19.5%	[13.5%, 25.5%]
Percentage with private health insurance	71%	[70%, 72%]	16.81%	[10.60%, 23.01%]	63%	[56%, 70%]
Percentage with LTCI	18%	[18%, 19%]	3.68%	[0.55%, 6.80%]	2%	[0%, 4%]
Income (percentage who have)						
Annual earnings	2.27%	[1.99%, 2.55%]			2.40%	[0.08%, 4.72%]
Social Security income	100.00%		95.72%	[92.36%, 99.08%]		
SSI	0.00%		7.16%	[2.88%, 11.44%]		
Disability	0.00%					
Investment income	84.48%	[83.79%, 85.16%]				
Pension income	50.21%	[49.26%, 51.15%]	35.82%	[27.86%, 43.78%]		

(Continued)

Table 5. (Continued)

Variable	HRS		NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	n = 143[a]	95% Confidence Interval	n = 170[a]	95% Confidence Interval
Income (average amounts of receivers)						
Annual Earnings	$20,000					
Social Security income	$11,134	[$11,055, $11,213]	$10,259	[$9,513, $11,004]		
SSI	—		$4,505	[$578, $8,431]		
Disability	—					
Investment income	$12,718	[$12,260, $13,177]				
Pension income	$19,340	[$18,873, $19,807]	$14,168	[$9,994, $18,342]		
Total household income	$41,834	[$41,176, $42,491]	$45,524	[$38,142, $52,906]	$34,339	[$21,513, $47,165]
Median household income	$33,108		$21,000		$21,312	
Assets						
Percentage who own home	22.44%	[21.65%, 23.23%]	27.35%	[19.96%, 34.75%]		
Average value of primary home if owned	$199,375	[$196,245, $202,505]	$125,396	[$96,138, $154,653]		
Average net worth	$620,399	[$604,116, $636,682]				
Median net worth	$256,120					
Debts						
Percentage who have mortgage outstanding	2.00%	[1.73%, 2.26%]	9.48%	[4.56%, 14.40%]		
Average mortgage balance among holders	$798	[$44, $1,552]	—			

(Continued)

Table 5. (Continued)

Variable	HRS		NLTCS		MCBS	
	n = 10,969[a]	95% Confidence Interval	*n* = 143[a]	95% Confidence Interval	*n* = 170[a]	95% Confidence Interval
Percentage with debt outstanding	4.76%	[4.36%, 5.17%				
Average debt among debt holders	$34,561	[$32,229, $36,893]				
Financial assistance						
Percentage who get help from children	2.31%	[2.03%, 2.60%]				
Annual average among recipients	$1,676	[$1,571, $1,780]				
Percentage who get help from friends/relatives	1.78%	[1.53%, 2.03%]				
Annual average among recipients	$500	—				
Percentage who get help from parents	0.00%					
Annual average among recipients	—					

Source: Authors' calculations from the 2004 HRS, NLTCS, and MCBS.
Note: ADL = activity of daily living; BMI = body mass index; HRS = Health and Retirement Study; IADL = instrumental activity of daily living; LTCI = long-term care insurance; MCBS = Medicare Current Beneficiary Survey; NLTCS = National Long-Term Care Survey; SSI = Supplemental Security Income.
a. Unweighted.

suggests that we might be disproportionately picking up the more care intensive residents of CCRCs, which may bias downward our estimates of health and wealth.

The composition of income is consistent with other types of care facilities, with almost everyone collecting Social Security benefits, and fewer than half collecting pension benefits. A higher proportion, though, is collecting investment income ($p = .017$), almost 85%, according to the HRS. Both the HRS and the NLTCS indicate that CCRC residents have the highest incomes, with an average household income of $40,000 to $45,000, comparable with those living in the private community.

The asset composition of CCRC residents is quite different than residents in other care community types. Over 20% still own homes, unlike the ALR and ILC residents. Unlike private residence dwellers, most CCRC residents do not have mortgages. The average value of the home is comparable with that of those who live in private residences according to the HRS, but is about $67,000 less than the average value of a private residence dweller's house, according to the NLTCS ($p = .001$). The net worth of CCRC residents is higher than that of those in private residences, but not statistically significantly higher ($p = .298$). Considering that the average age of HRS respondents in CCRCs is 82 years, these resources are likely to outlive the residents. In addition, the average transfers from outside the household are fewer than half those reported by seniors in private residences ($p < .001$). CCRC residents seem to be the most financially independent and well-off households.

Longitudinal Results

Although the demographic, health, income, and asset information of the residents of different seniors housing and care communities is interesting, it does not give a complete picture of who these individuals are and what they looked like before they entered the care community. For example, more individuals in ILCs have Supplemental Security Income and are covered by Medicaid, implying very low wealth levels. But the simple cross-sectional analysis does not reveal whether the ILC residents were always low income or if they spent down their assets by the time they were 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 and the 1999 NLTCS and matched them to their 2004 counterparts used in the earlier cross-sectional analysis. Table 6 highlights the transitions between the 1998 and 2004 HRS waves. This is the

Table 6. Transitions Between 1998 and 2004 in the HRS

		2004					
		Community	ILC	ALR	CCRC	Nursing Home	Died
1998	Community	10,116	72	10	45	436	3,590
	ILC	7	15	0	4	3	36
	ALR	1	2	1	1	0	5
	CCRC	2	2	0	12	4	24
	Nursing home	15	2	0	2	31	360
	Total	10,141	93	11	64	474	4,015

Note: ALR = assisted living residence; CCRC = continuing care retirement community; HRS = Health and Retirement Study; ILC = independent living community. Eight hundred twenty-eight of the community dwellers and 4 of the CCRC residents are new to the HRS since 1998. Unweighted sample sizes are presented in each cell.

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. Although movement to more intensive 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 ILCs to ALRs to CCRCs to nursing homes. Instead, most moves to care communities are from private residences, not from other care properties. It seems that individuals select one type of care community and stay.

Similar transitions patterns can be seen between 1999 and 2004 in the NLTCS, as shown in Table 7. The NLTCS is completed only every 5 years, so this is the shortest transition window we can examine. Given the high nonresponse rate, it does not seem prudent to examine longer periods with this data set, since any selection issues will be exacerbated. 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.

These simple cross-tabulations of movement illustrate the major weakness of using these data sets; although persistence in living arrangement is clear, the limited sample sizes prevent further analysis on the longitudinal aspect of these living arrangements. Additional data, with a focus on seniors in these

Table 7. Transitions Between 1999 and 2004 in the NLTCS

		2004						
		Community	ILC	ALR	CCRC	Nursing Home	Dead	Not in Survey
1999	Community	2,416	32	19	91	173	349	2,426
	ILC	10	4	1	6	9	5	67
	ALR	2	0	0	3	0	1	20
	CCRC	3	1	0	3	1	0	56
	Not in survey	2,639	65	52	40	0	0	—
	Total	5,070	102	72	143	183	355	2,569

Note: ALR = assisted living residence; CCRC = continuing care retirement community; ILC = independent living community; NLTCS = National Long-Term Care Survey. Unweighted sample sizes are presented in each cell.

housing and care communities, are needed if the full income and asset picture is to be drawn.

Conclusions

Using three nationally representative data sets, we have examined the income and assets of individuals living in seniors housing and care communities. We have presented cross-sectional data that provide a fairly coherent picture of income, even though the sample sizes are quite limited. Compared with seniors living in private residences, individuals living in ILCs and ALRs have lower household incomes. CCRCs, on the other hand, seem to attract individuals with higher incomes, even higher incomes on average than the elderly remaining in the community.

Detailed wealth information is collected in only one of the existing data sets, 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.

The cross-sectional analysis helps address the policy concerns regarding the availability of seniors housing and care residences to low- or moderate-income households (e.g., Hawes, Rose, & Phillips, 1999; Stevenson & Grabowski, 2010; Waidmann & Thomas, 2003). We find that the lower income elderly population is served by ILCs and ALRs. CCRCs, on the other hand, appear to be out of reach for most of the lower to moderate-income households. Unfortunately, the small

sample sizes prevent us from being able to determine whether the individuals in these communities were lifetime low income or have spent so much of their savings that they now are low income. For that, longitudinal data sets with larger samples of seniors housing and care community residents are needed if we are to really understand the trajectory of wealth, both before and after admission, and draw implications for ability to pay for future nursing home needs.

Acknowledgment

The authors gratefully acknowledge Christopher Sullivan and Jean-Pierre Aubry for excellent research assistance, and helpful comments from people at the National Investment Center for the Seniors Housing & Care Industry, especially Robert Kramer, Charles Harry, and Anthony Mullen.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: We gratefully acknowledge the National Investment Center for the Seniors Housing & Care Industry for its support of this research. The opinions and conclusions expressed are solely those of the authors and do not necessarily reflect the opinions of the National Investment Center for the Seniors Housing & Care Industry or the Center for Retirement Research.

Notes

1. Longitudinal patterns are virtually impossible to detect in the MCBS. Because of the rotating sample design, 2002 to 2004 is the longest horizon for which one can match individuals. Furthermore, the strong persistence in living arrangements means that very few transitions are observed during this time period.
2. The public-use data files used in this analysis can be downloaded free of charge, with user registration, at http://hrsonline.isr.umich.edu.
3. The data are available in CD format by following the instructions at http://www.nltcs.aas.duke.edu. We obtained the sampling weights directly from Dr. Kenneth G. Manton.
4. The MCBS Cost and Use files are available for purchase from the Centers for Medicare and Medicaid Services, upon project approval and oversight, with the assistance of the Research Data Assistance Center.
5. The NLTCS asks most of the health questions for a selected subsample of individuals, namely, those who are not living in facilities, so only the number of ADLs is known for individuals living in CCRCs from that survey.

6. The question on the number of doctor visits varies between the surveys: The HRS asks for the number of visits within the past 2 years, the MCBS records visits in the past year, and the NLTCS asks about visits in the past month. We report the average number of doctor visits per year for the HRS and MCBS and keep the doctor's visit in the last month for the NLTCS.

References

American Seniors Housing Association, National Investment Center for the Seniors Housing & Care Industry, & American Association of Homes and Services for the Aging. (2008). *The state of seniors housing 2008*. Washington, DC: American Seniors Housing Association.

Assisted Living Federation of America & National Investment Center for the Seniors Housing & Care Industry. (1998). *National survey of assisted living residents: Who is the customer?* Alexandria, VA: Assisted Living Federation of America.

Hawes, C., Rose, M., & Phillips, C. D. (1999). *A national study of assisted living for the frail elderly: Results of a national survey of facilities*. Washington, DC: U.S. Department of Health and Human Services.

National Investment Center for the Seniors Housing & Care Industry. (2003). *Understanding seniors housing demand, choices, and behavior: Insights from the AHEAD and HRS studies*. Annapolis, MD: Author.

Stearns, S. C., & Morgan, L. A. (2001). Economics and financing. In S. Zimmerman, P. D. Sloane, & J. K. Eckert (Eds.), *Assisted living* (pp. 242-270). Baltimore, MD: The Johns Hopkins University Press.

Stevenson, D. G., & Grabowski, D. C. (2010). Sizing up the market for assisted living. *Health Affairs*, *29*(1), 35-43.

Waidmann, T. A., & Thomas, S. (2003, July). *Estimates of the rick of long-term care: Assisted living and nursing home facilities*. Washington, DC: U.S. Department of Health and Human Services, Office of the Assistant Secretary for Planning and Evaluation, Office of Disability, Aging, and Long-Term Care Policy.

Bios

Norma B. Coe is the Associate Director for Research at the Center for Retirement Research at Boston College and a fellow in the Network for the Study of Pensions, Aging and Retirement (Netspar). Her research interests include public finance, labor, and health economics.

Melissa A. Boyle is an assistant professor of economics at the College of the Holy Cross. Her research interests include aging, health care and social insurance.