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# U.S. OLDER ADULTS: DEMOGRAPHICS, LIVING ARRANGEMENTS, AND BARRIERS TO AGING IN PLACE

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James H. Johnson, Jr.  
Stephen J. Appold







## ABSTRACT

A pooled Public Use Microdata Sample File of the Census Bureau’s Annual American Community Survey (2011–2015) is used to (1) create a demographic profile of the nation’s older adult population; (2) develop an older adult household typology which encapsulates both generational dynamics and diverse living arrangements; and (3) identify older adults who face the greatest barriers to aging in place. Policies and strategies that support and facilitate successful aging in place for the most vulnerable older adults are discussed.

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## INTRODUCTION

Nearly all older adults prefer to age in their homes and their communities as opposed to an institutional facility (See Farber et al. 2011). To act on this preference, the houses and local communities where older adults reside must be made far more age friendly. That is, major efforts are required to modify existing and design new single- and multi-family housing units, all public and private sector buildings, and the community level infrastructure of streets, pedestrian walkways and crossing signals, signage and lighting, as well as outdoor parks, recreation, and entertainment facilities to accommodate an aging population (Lawler, 2015; Feather, 2015; Hodin, 2015; Irving 2016).

In 2006, the World Health Organization (WHO) created a toolkit to guide the development of age-friendly communities (WHO, 2007). Subsequently adopted by AARP, the toolkit identifies eight domains of livability in which planning is required in order for communities to become great for people of all ages: outdoor spaces and buildings, transportation, housing, social participation, respect and social inclusion, civic participation and employment, communication and information, and community and health services (AARP, 2017). In each of these domains, WHO and AARP provide concrete planning guidelines and checklists for local officials to follow in their efforts to create age friendly communities.

To ensure that the nation’s rapidly growing senior population is able to age in place for as long as humanly possible, research suggests that WHO/AARP-inspired community-level planning must be anchored in sound local demographic intelligence on both the characteristics of older adults and their increasingly diverse living arrangements (Johnson and Parnell, 2016–17). Among the demographic considerations is the way the now five generations that make up the U.S. population—pre-boomers, boomers, Generation X, Generation Y, and Generation Z—are sorting themselves out residentially in urban and rural communities throughout the country (Blumenfeld, 2014).

Among U.S. households, multi-generational living arrangements are becoming increasingly more common today (Cohen and Passel, 2016). Such living arrangements vary significantly by race, ethnicity, gender, sexual orientation, and marital status (Ramirez-Valles, 2016; Blumenfeld, 2014; Aamer, 2014). They are driven by, among other forces, cultural factors, recession-induced employment dislocations, the recent housing foreclosure crisis, and America's prescription drug epidemic—a tragic development that is leaving behind significant numbers of orphaned children who are being taken in by aging grandparents or other relatives who often are older adults (Xu, et al., 2016; Cohen and Passel, 2016; Niederhaus and Graham, 2013). Policies and strategies designed to facilitate aging in place therefore must be sufficiently robust to address all of these factors (Accius, & Yeh, 2016-17; Atkins, 2016-17; Mann, Raphael, Anthony and Nevin, 2016-17; Aamer, 2014).

The objectives of this study are twofold. The first is to document the diversity of older adult living arrangements in the U.S. The second is to outline a set of aging in place policy prescriptions that align with the revealed living arrangements of U.S. older adults who face the greatest barriers to aging in place.

To achieve these objectives, we draw upon data from the U.S. Census Bureau's American Community Survey (ACS). More specifically, we use the Public Use Microdata Sample (PUMS) file of the ACS, a pooled database of the five most recent annual surveys (2011-2015) which represents roughly 5% of the U.S. population (American Community Survey Office, 2017). For the purpose of this research, this dataset is ideal because it contains a *housing record*, which includes statistics on the characteristics of the surveyed housing unit, and a *person record*, which includes detailed statistics on the characteristics of every person in the surveyed housing unit. The two files are linked by a common serial number which makes possible “the study of people within the context of their families and other household members,” that is, their living arrangements (American Community Survey Office, 2017).

We focus on all U.S. households where one or more person 65 or older lived in 2011-2015 (hereinafter referred to as older adult households). From the person record of the PUMS file, we extracted data on the age, sex, race, income, type of health insurance, types of age related difficulties, and relationships among all individuals in such households. From the housing record, we collected data on the type of unit, units in structure, when structure was built, household income, and selected monthly owners cost. In some instances, our analyses are based on data from either the person or the household record of the PUMS file. In others, we merge indicators from both files.

Older adults' ability to age in place may hinge to a significant degree on whether

they rent or own their homes and on their ability to pay for either needed home modifications or the relocation costs associated with a move to alternative housing that is age friendly. To evaluate this proposition, we used the PUMS data to:

- create a demographic profile of U.S. older adults and of the housing units that they occupy;
- develop a household typology which encapsulates the generational dynamics and diverse living arrangements of the U.S. older adult population; and
- identify barriers/challenges to successful aging in place.

We conclude by discussing policy options and strategies for promoting and facilitating successful aging in place for the most vulnerable older adults.

## PROFILE OF U.S. OLDER ADULTS

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In 2015...there were 44.6 million people age 65 or older in the U.S., representing 15% of nation's total population.

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In 2015, according to the PUMS data, there were 44.6 million people age 65 or older in the U.S., representing 15% of nation's total population. Continuing an earlier trend, the older adult population (15%) grew much more rapidly—five times faster--than the total population (3%) between 2010 and 2015 (Johnson and Parnell, 2016-17). Selected demographic characteristics of the older adult population are highlighted in Figure 1.

America's older adult population is disproportionately non-Hispanic white (79%). People of color made up only about one-fifth of the nation's older adult population in 2011-2015. Blacks accounted for 9%, Hispanics 7%, Asians 4%, and other people of color 1% (Figure 1A). The nonwhite share of the older adult population will increase in the future as these groups, who are much younger on average than the non-Hispanic white population, continue to progress through the life course toward old age (Johnson and Parnell, 2016-17).

In part as a function of major medical advances, more active life styles, and healthy eating behaviors, older Americans are living much longer today than in the past. In 1940, persons surviving to age 65 had an average remaining life expectancy of 12.7 years. Persons turning 65 today are expected to live on average another 18.7 years (Exner, 2014).

In 2011-2015, the mean age of the U.S. older adult population was 75, and the median age was 73. About half of older adults were between the ages of 65 and 74—a group referred to as the young old. Thirty percent were between the ages of 75 and 84—a group referred to as the middle old. And 13% were 85 or older—a group referred to as the oldest old (Figure 1B). Among these three subgroups, the 85+ population grew most rapidly between 2010 and 2015 (Johnson and Parnell, 2016-17).

Figure 1: Selected Demographic Characteristics of U.S. Older Adults, 2011-2015



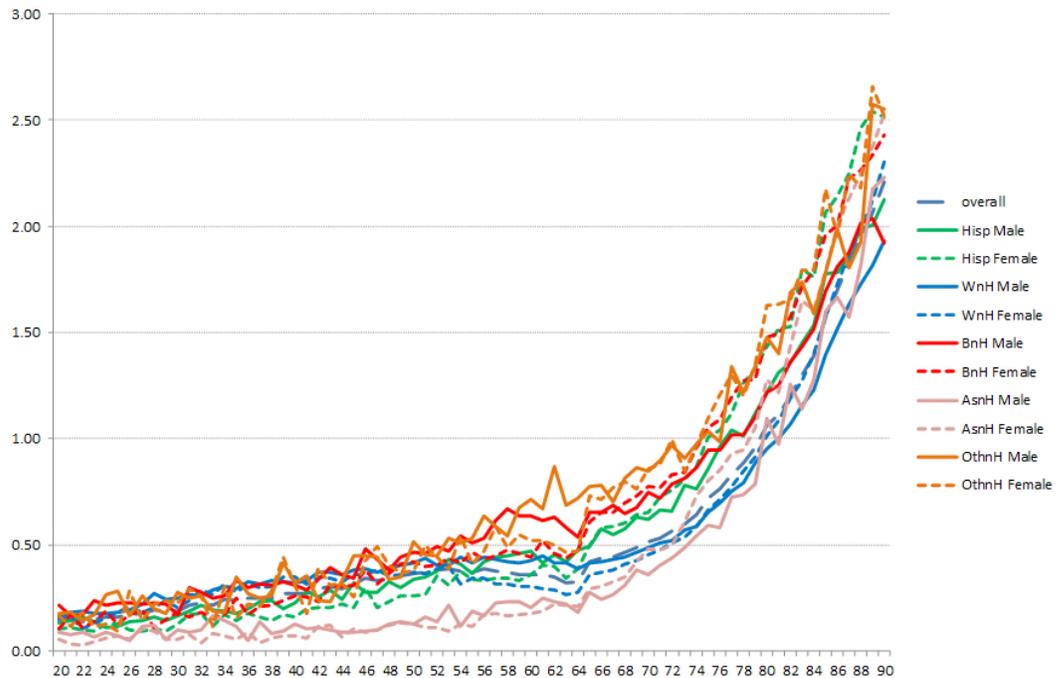
Source: American Community Survey, PUMS, 2011-2015

Life expectancy after age 65 has risen for both males and females since the Social Security Act was promulgated in 1935 (Xu, et al., 2014; Bosworth, Burtless, and Zhang, 2016). Nevertheless, a significant sex ratio imbalance continues to characterize the U.S. older adult population because men are more likely to die at every age than are women (Figure 1C). In 2011-2015, for example, the older adult population was 56% female and 44% male, with the sex ratio disparity greatest among the 85 and older population.

More than one quarter of the older adult population was widowed in 2011–2015. Close to 15% were either divorced or separated. Just over half were married. And the remainder were never married (Figure 1D).

Nearly 17 million older adults—38% of the total—reported having some type of age-related difficulty that constrained their ability to fully engage in activities of daily living (ADL) or instrumental activities of daily living (IADL) in 2011–2015 (Figure 1E). One quarter—11.1 million—reported physical difficulties while 17% (7.8 million) reported experiencing difficulties going out. Between 10% and 15% reported difficulties hearing (6.9 million), remembering (9.8 million), dressing (4.7 million), or seeing (3.2 million). A significant number suffered from more than one of these difficulties. As Figure 2 shows, multiple difficulties were most pronounced among the age 70 and older population. This was true for all race/ethnic groups and for both genders of older adults.

**Figure 2: Summary Disability Measure by Age, Sex, and Race, Older Adult Households, 2011–2015**



Source: American Community Survey, PUMS, 2011–2015

A majority of the units occupied by older adults (88%) were either detached single family houses (68%) or apartments (19%) in 2011–2015. Attached one-family houses (6% or 1.9 million), mobile homes or trailers (6% or 1.9 million), or boats, RVs, vans, etc. (0.1% or 38,000) made of the balance of older adult-occupied units (Figure 3A).

Figure 3: Selected Housing Characteristics of U.S. Older Adults, 2011-2015



In 2015, 44% of the housing units occupied by older adults (13.8 million) were built in 1969 or earlier. In order for the residents to successfully age in place, demolition and replacement may be required...

Source: American Community Survey, PUMS, 2011-2015

For 2011–2015, 44% of the housing units occupied by older adults (13.8 million) were built in 1969 or earlier. In order for the residents to successfully age in place, demolition and replacement may be required due to the age and condition of some of these properties. In other instances, major renovations may be possible, but are likely to be very expensive (The Real Estate Inspection Company, 2016). Roughly the same percentage (43% or 13.5 million) were built between 1970 and 1999. These houses also probably require fairly substantial modifications, but not as drastic as units built before 1970 (Williams, 2014). Twelve percent of the housing units occupied by older adults were built since 2000. In all likelihood, these require modest modifications to be age friendly (Figure 3B) (JCHS, 2014).

Close to half of the housing units occupied by older adults (47% or 14.7 million) were owned free and clear in 2011–2015. One third were owned with a mortgage or loan (31% or 9.7 million). Almost one fifth (19% or 6.0 million) were rented and 2% were occupied without paying rent (638,000)(Figure 3C). Effective strategies to foster and facilitate age-friendly renovations across this diverse set of tenure types and dwelling unit ages will hinge on a clear understanding of the widely varying living arrangements of America’s older adult population (Cohen and Passel, 2016).

## OLDER ADULT HOUSEHOLD TYPES AND LIVING ARRANGEMENTS

In 2011–2015, older adult households were comprised of a diverse mix of individuals (Table 1). Looking at all persons in such households in the aggregate, the reference person (47%), who was typically the head of household, living alone or with a spouse (22%) made up the majority (69%) followed by a son or daughter (13.5%), grandchild (4.6%), and/or father or mother (3.8%). In some instances, a non-relative (2.5%), other relative (2.1%), in-law (1.9%), sibling (1.3%), and/or unmarried partner (1.0%) was present (Table 1).

In 2015, older adult households were comprised of a diverse mix of individuals.

**Table 1: Relationships within Older Adult Households, 2011-2015**

Relationship	Absolute Number	Percent	Cumulative Percent
All 65+ household members	65,915,735	100	100
Reference person	31,175,234	47.3	47.3
Husband/wife	14,560,638	22.1	69.4
Unmarried partner	608,910	0.9	70.3
Son or daughter *	8,876,588	13.5	83.8
Sibling	854,591	1.3	85.1
Father or mother	2,518,609	3.8	88.9
Grandchild	3,023,090	4.6	93.5
In-laws **	1,279,904	1.9	95.4
Other relatives	1,388,366	2.1	97.5
Non-relatives ***	1,629,805	2.5	100

\*Includes biological, adopted, and stepchildren

\*\* Includes parent-in-law, son-in-law, and daughter-in-law

\*\*\* Includes roomer or boarder, housemate or roommate, foster child, other non-relative

Through a detailed analysis of these familial and non-familial relationships at the household level, we developed a typology which encapsulates the generational dynamics of the U.S. older adult population in 2011–2015. Four types of older adult households were identified:

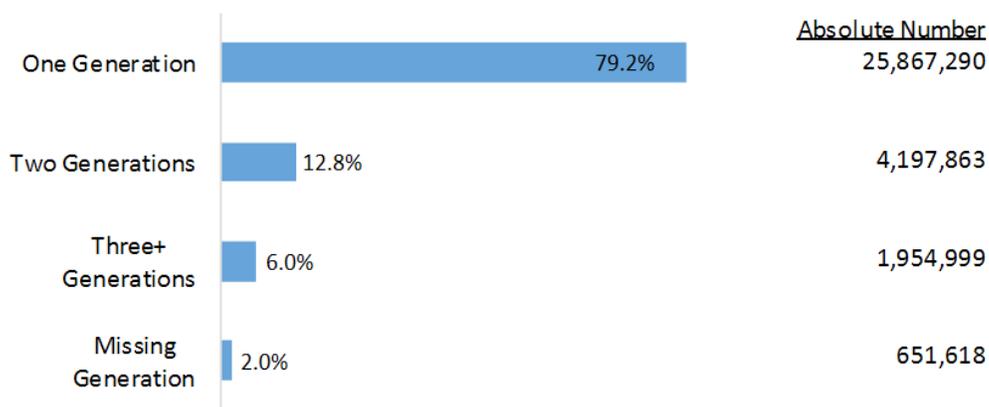
- **One generation households**—exclusively older adults living independently or in group quarters.
- **Two generation households**—one or more older adults and one or more of their biological offspring.
- **Three plus generation households**—one or more older adults, one or more

of their biological offspring, and one or more of their grandchildren.

- **Missing generation households**—one or more older adults and one or more of their grandchildren, neither parent of grandchild(ren) present.<sup>1</sup>

As Figure 4 shows, U.S. older adult households were disproportionately made up of one generation of family members (79%) in 2011–2015. Over a fifth (21%) of all U.S. older adult households contained more than one generation of family members. Thirteen percent were two-generation, 6% were three-plus generation, and 1% were missing generation households.

**Figure 4: Composition of Households with One or More Older Adults, United States, 2011-2015**



Source: American Community Survey, PUMS, 2011–2015

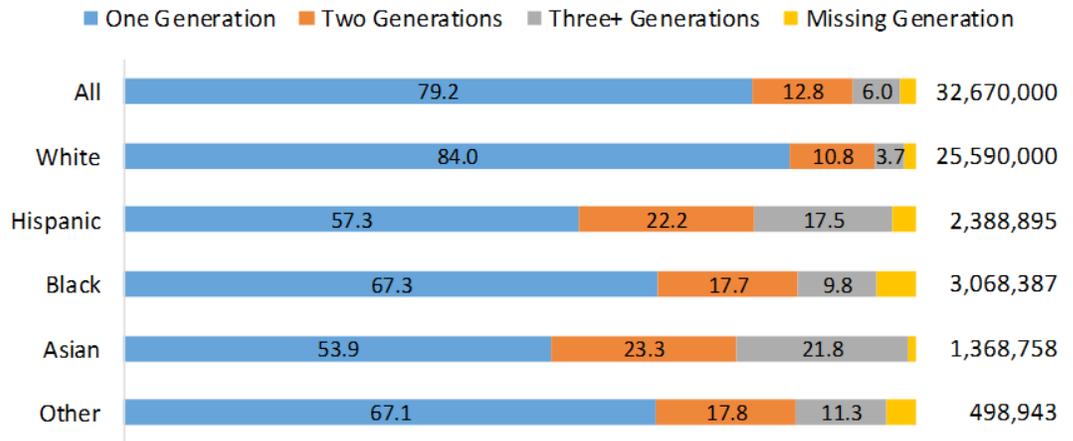
These aggregate statistics mask stark race/ethnic differences in older adult household types. As Figure 5 shows, non-Hispanic white older adult households (84%) were far more likely than their Asian (54%), Black (46%), Hispanic (57%), and other people of color (57%) counterparts to be made up of one generation of family members. Conversely, older adult Asian (46%), Hispanic (43%), Black (33%) and other people of color (33%) households were far more likely than their non-Hispanic white counterparts (16%) to be two, three-plus, or missing generation households in 2011–2015 (Figure 5).

Further exploration of familial and non-familial relationships within and across these four generational household types revealed substantial diversity in older adult living arrangements. Those living arrangements included (1) older adults who lived independently, (2) older adults who were caretakers of non-elderly family members, (3) older adults who lived with non-elderly caregivers, and (4) older adults who were institutionalized. As Table 2 shows, most of the nation’s older adults lived

<sup>1</sup> Cohen and Passel (2016) use the term “skipped generation” to describe these older adult households.

independently in 2015 (24.4 million or 78%). Caretaker and caregiver households accounted for 15% (4.7 million) and 7% (2.1 million), respectively, of all older adult households. Institutionalized older adults accounted for the smallest share (2% or 1.5 million).

**Figure 5: Composition of Households with One or More Older Adults by Race/Ethnicity, United States, 2011-2015**



Source: American Community Survey, PUMS, 2011-2015

**Table 2: Older Adult Living Arrangements, United States, 2011-2015**

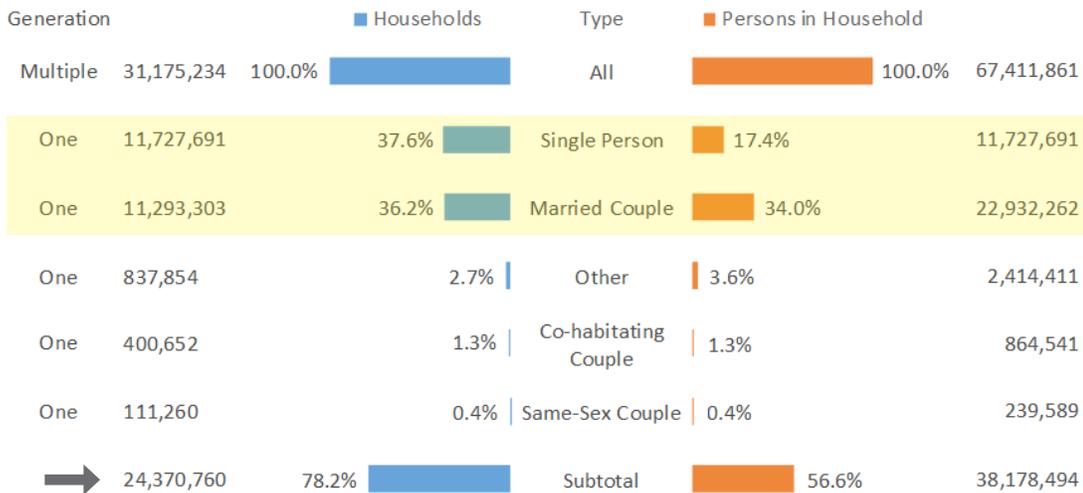
	Households	Persons in Households
All	31,175,234 (100%)	67,411,861 (100%)
Institutionalized	N/A	1,496,126 (2.2%)
Independent	24,370,760 (78.2%)	38,178,494 (56.6%)
Caretaker	4,710,245 (15.1%)	18,206,486 (27.0%)
Caregiver	2,094,229 (6.7%)	9,530,755 (14.1%)

Source: American Community Survey, PUMS, 2011-2015

Among those living independently, one generation single person households accounted for the largest share (11.7 million or 38%). One generation married couple households accounted for the second largest share (11.3 million or 36%)(Figure 6).

The single-person households were 81% non-Hispanic white and 69% female. The median age (76) and median disability count (0.9) suggests that these individuals were at the stage of life when they begin to experience one or more age-related difficulties that may challenge their ability to age in place. Forty two percent of these individuals had lived in their current dwelling unit for twenty or more years (Figure 7A).

Figure 6: U.S. Older Adults Living Independently, 2011-2015



Source: American Community Survey, PUMS, 2011-2015

Like their single person counterparts, the one generation older adult heterosexual married couple households were predominantly non-Hispanic white (86%). However, they were younger (median age 72 and 71, respectively) and had lower disability counts (0.4 and 0.5, respectively), suggesting that most of these older adults were not yet experiencing age-related difficulties that would prevent them from aging in place. However, they were at an age where activities of daily living and instrumental activities of daily living are likely to become major issues over the next decade. Close to half (49%) had lived in their current house for twenty plus years (Figure 7B).

Among the remaining older adults households living independently (7.6% or 1.3 million), as Figure 6 shows, 0.4% were same-sex couples (111,260), 1.3% were unmarried, cohabitating couples (400,652), and 2.7% were a mixture of older siblings, other relatives, and non-relatives living together (837,854). The latter group was difficult to classify and therefore are characterized for our purposes here as “other” living arrangements.<sup>2</sup>

Caretaker living arrangements, as revealed in Figure 8, were reflected in approximately 15% of the nation’s older adult households in 2011-2015 (4.7 million). Typically, in such living arrangements, an older adult was the head of household. The other occupants were second and/or third generation dependents—most often an adult offspring and/or a grandchild—who relied on the older adult household head for lodging and other basic necessities. Five examples of caretaker living arrangements are highlighted here.

<sup>2</sup> Though small in absolute number, detailed demographic profiles of these living arrangements are available from the authors upon request.

Figure 7: One Generation Older Adult Households Living Independently, 2011-2015

Figure 7A: Single Persons



Figure 7B: Married Couples

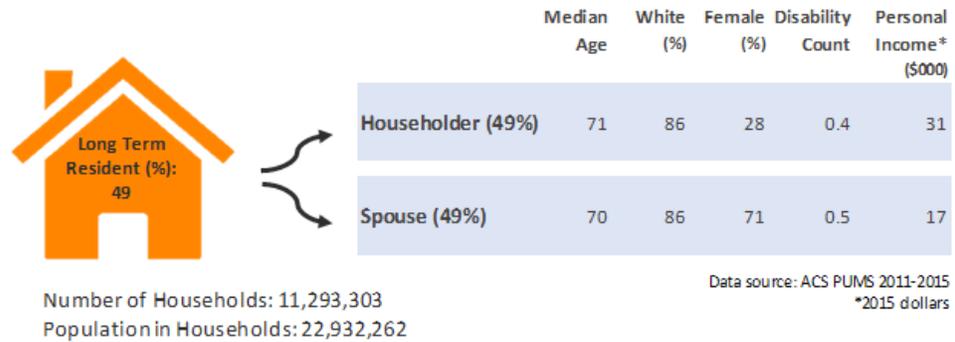


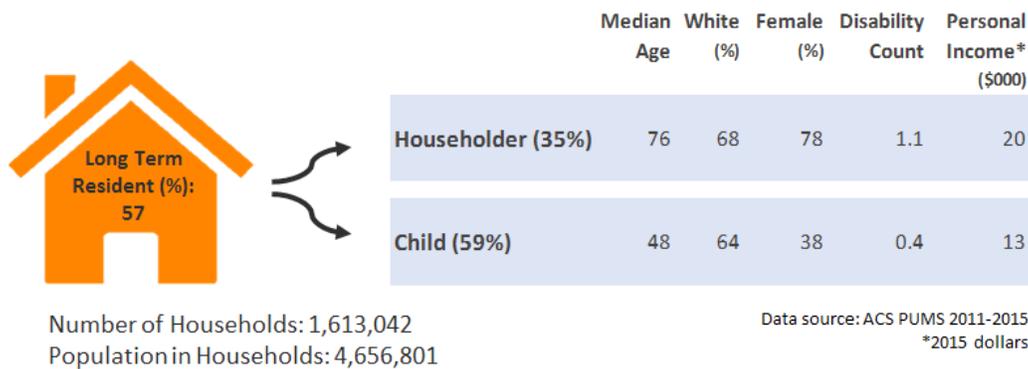
Figure 8: U.S. Older Adults Caretaker Households, 2011-2015

Generation	Households	Type	Persons in Household
Multiple	31,175,234 100.0%	All	67,411,861 100.0%
Two	1,613,250 5.2%	Elderly Single Parent	4,656,801 6.9%
Two	1,475,222 4.7%	Elderly Married Couple	5,739,892 8.5%
Three+	651,671 2.1%	Missing Generation	2,282,666 3.4%
Three+	411,073 1.3%	Elderly Married Couple	2,583,874 3.8%
Three+	403,496 1.3%	Elderly Female Head	2,161,537 3.2%
Three+	98,671 0.3%	Elderly Male Head	528,194 0.8%
Two	47,586 0.2%	Co-habiting Couple	214,814 0.3%
Two	9,276 0.03%	Same-Sex Couple	38,708 0.06%
→	4,710,245 15.1%	Subtotal	18,206,486 27.0%

Source: American Community Survey, PUMS, 2011-2015

The largest number of older adult caretaker households (1.6 million) was headed by an elderly single parent with a live-in adult child (Figure 9). This type of two generation living arrangement accounted for 5.2% of all older adult households and 6.9% of all persons living in older adult households (4.6 million) in 2011–2015 (see Figure 8). These households were typically headed by a female (78%). Roughly one third of these female household heads were women of color. Their median age was 76. They were experiencing age-related difficulties that probably challenged their ability to engage in activities of daily living (1.1 disability count). The live-in child was typically a middle aged male (median age 48) with very limited personal income in 2015 (\$13,000). Slightly over half (57%) of the older adult female household heads had lived in their current dwelling for twenty or more years.

**Figure 9: Two Generation Households, 2011-2015 - Elderly Single Parents**

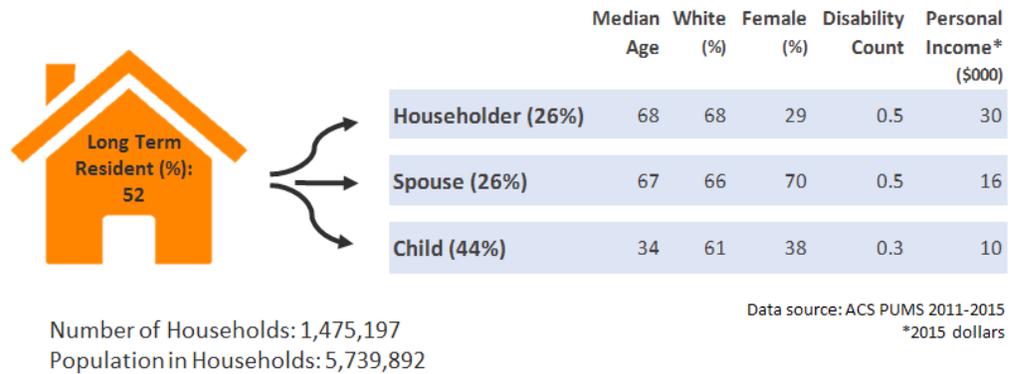


The second largest number of older adult caretaker households was headed by elderly married couples (1.5 million) in their late sixties (median age 68 and 67, respectively) (Figure 10). An adult male child (median age 34) who was probably weakly attached to the labor market (\$10,000 in personal income in 2015) lived with them. The older adults were not yet experiencing major difficulties that would challenge their ability to age in place (both with disability counts of 0.5) but were approaching the age (68 and 67, respectively) where such issues can potentially become a problem. Over half of these elderly married couples (52%) were long term residents of their current dwelling. This type of two generation living arrangement accounted for 4.5% of all older adult households and 8.0% of all persons living in older adult households (5.4 million) in 2011–2015 (see Figure 8).

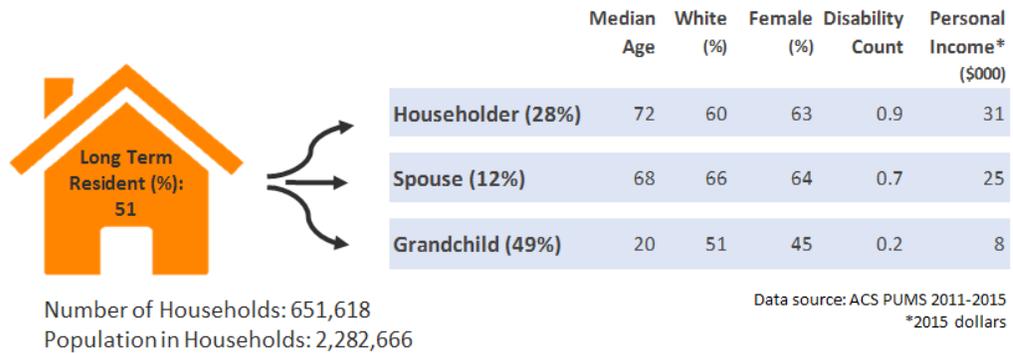
The third largest number of older adult caretaker households (652,000) were headed by grandparents raising their own grandchild(ren) (Figure 11). Because neither of the biological parents of the grandchild(ren) was present in the home, we use the term “missing generation” to describe this type of living arrangement. In 2011–2015, the grandparents had aged to a level (median age 72 and 68, respectively) that they probably were beginning to manifest age-related constraints in their daily lives

(median disability counts of 0.9 and 0.7, respectively)--with the added responsibility of housing and supporting a young adult grandchild (median age 20) with modest personal income (\$8,000). While only 20% of all elderly households were nonwhite, roughly 40% of these missing generation households were headed by nonwhite couples in 2011–2015. And over half (51%) of these grandparents were long-term residents of their current house.

**Figure 10: Two Generation Caretaker Households, 2011-2015 - Elderly Married Couples**



**Figure 11: Missing Generation Caretaker Households, 2011-2015**

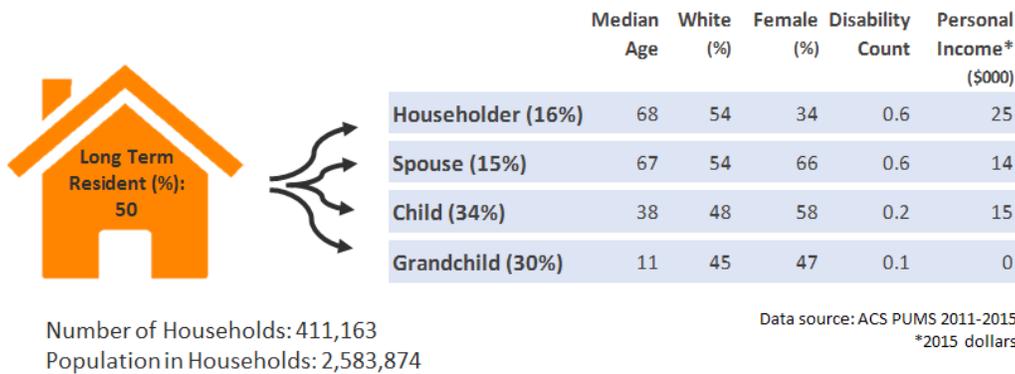


Three plus generation elderly married couples (411,000) and three plus generation elderly female-headed (403,000) caretaker households each accounted for about 1.3 percent of all U.S. older adult households in 2011–2015 (see Figure 8). Profiles of these two living arrangements appear in Figures 12 and 13.

The elderly married couples shared their home with an adult child (median age 38)---typically a female (58%) with modest personal income in 2015 (\$15,000)---and an adolescent grandchild (median age 12). In their late 60s (median age 69 and

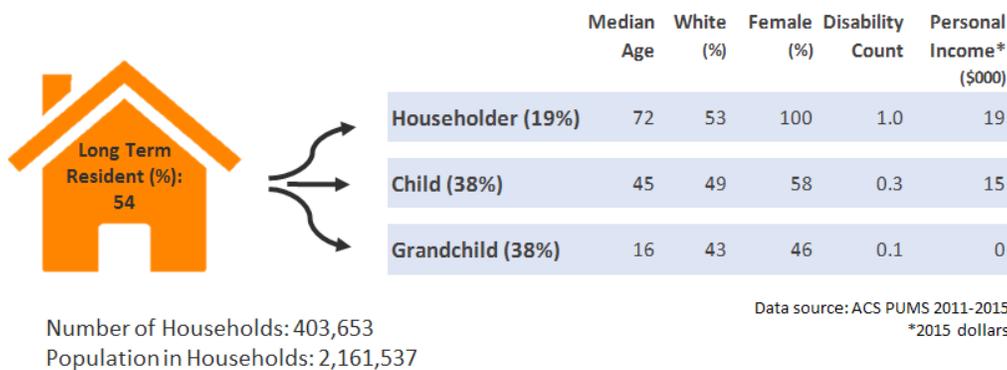
68, respectively,) these elderly couples were approaching the age where age-related difficulties may become an issue (median disability count 0.6 for both spouses). Roughly half of these elderly married couples were nonwhite. And fully half of them had lived in their current resident for twenty or more years.

**Figure 12: Three+ Generation Caretaker Households, 2011-2015 - Married Couples**



The elderly female household heads (median age 74) also shared their place of residence with a mature adult offspring (median age 45) with low personal earnings (\$15,000) and an adolescent grandchild (median age 12) (Figure 13). The adult offspring was more likely to be female (58%) than male (42%). The female heads were beginning to evidence age-related difficulties that most likely will challenge their ability to age in place (1.0 median disability count). These household were slightly more likely to be non-Hispanic white (53%) than nonwhite (47%) in 2011–2015. And 54% of the female household heads had lived in the current dwelling units for more than 20 years.

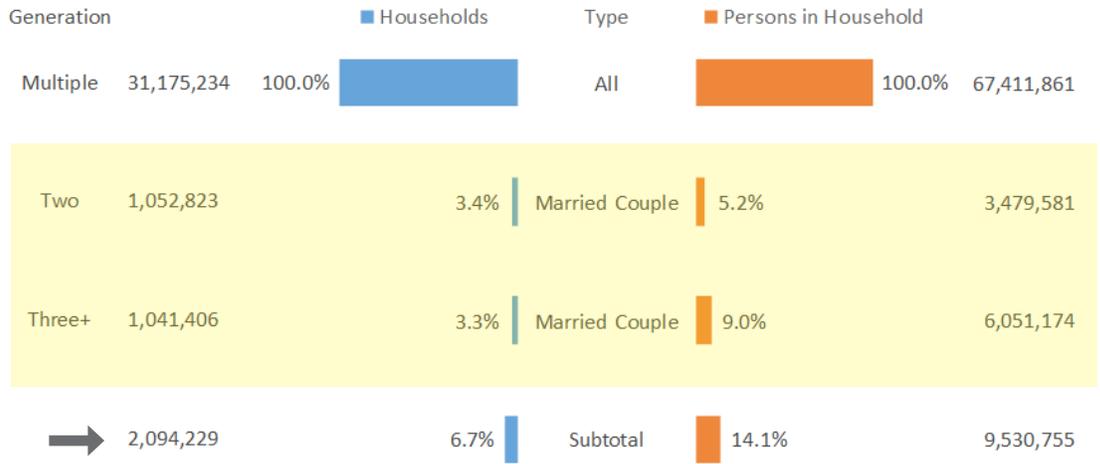
**Figure 13: Three+ Generation Caretaker Households, 2011-2015 - Elderly Female Heads**



There also were other types of older adult caretaker living arrangements in 2011–2015, but the numbers—both in terms of households and person living in the households—were relatively small. They included, as Figure 8 shows, three plus generation elderly

male-headed households with live in adult children and grandchildren (0.3% or 98,671) as well as two generation cohabitating couples (0.2% or 47,586) and two generation same-sex couples (.03% or 9,376) with live in adult children.<sup>3</sup>

**Figure 14: U.S. Non-Elderly Caregiver Households, 2011-2015**



Source: American Community Survey, PUMS, 2011-2015

Approximately 7% of U.S. older adult households (2.1 million) were involved non-elderly caregiver living arrangements in 2015 (Figure 14). Half were two generation living arrangements (1.1 million) and half were three plus generation living arrangements (1.0 million).

In the two generation households, non-elderly married couples (median age 54 and 57, respectively) or non-elderly siblings (median age 54 and 46, respectively) were caretakers of an elderly parent (median age 80)—typically a female (76%) experiencing significant age-related difficulties (median disability count 1.8). Roughly half of these couples had lived in their current house for twenty plus years (Figure 15A).

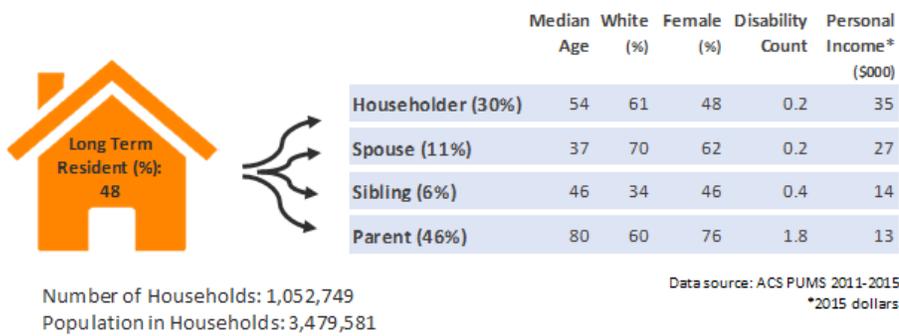
In the three plus generation households, the non-elderly couples were in their late 40s (Figure 15B). They were taking care of their own biological child (median age 16) and an aging parent (median age 75)—also typically a female (71%) experiencing multiple age-related challenges (median disability count of 1.3). These households were more likely to be non-white (60%) than non-Hispanic white (40%). Only 14% of these households had lived in their current dwelling for twenty or more years (Figure 15B)—not surprising given the relatively young ages of the non-elderly household heads.

<sup>3</sup> Detailed profiles of these living arrangements are available from the authors upon request.

Finally, as noted previously, a small percentage of older adults (2.2 % or 1.5 million) were institutionalized in group quarters in 2011–2015. Their median age was 82 and the group was 80% white and 66% female. With a mean disability count of 3.5, the individuals were experiencing major difficulties with activities of daily living and instrumental activities of daily living—the kinds of challenges that require around the clock or long term supports and services (Figure 16).

Figure 15: Non-Elderly Couple Caregiver Households, 2011-2015

**Figure 15A: Two Generation**



**Figure 15B: Three+ Generation**

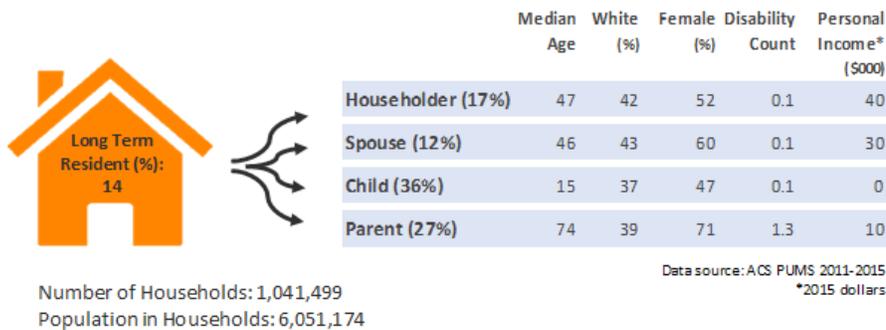


Figure 16: Older Adults in Group Quarters, 2011-2015



Source: American Community Survey PUMS

## OLDER ADULT HOUSEHOLDS FACING AGING IN PLACE CHALLENGES

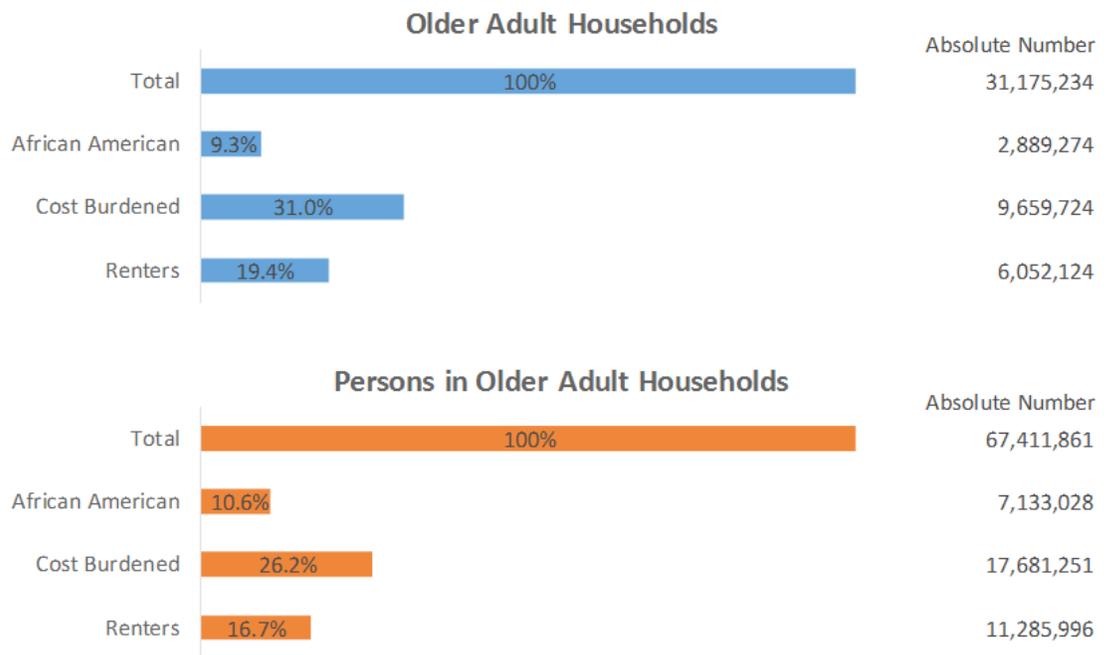
To a degree, all older adults will face obstacles to aging in place. But prior research suggest that three overlapping subgroups of older adults are likely to experience the most difficulty positioning themselves to successfully age in place (HUD, 2013; JCHS, 2014; Johnson and Parnell, 2016-17). We extracted data from the PUMS file which highlight the most challenged older adults.

To a degree, all older adults will face obstacles to aging in place.

Older adults who were burdened by excessive monthly housing cost made up the largest group. These were households that spent more than 30% of household income on selected monthly owners cost in 2011-2015. For our purpose, excessive monthly cost is a proxy measure for a broad range of financial considerations that probably make it difficult, if not impossible, for older adults to afford age-friendly home renovations. In 2011-2015, as Figure 17 shows, 30% of all older adult households were burdened by excessive housing costs (9.7 million) and these households were home to 26% of all persons living in older adult households (17.7 million).

Older adults who rented their dwelling units made up the second largest group. By virtue of their tenure status as renters, they are totally reliant on landlords or property

Figure 17: Households with Aging in Place Challenges, 2011-2015



Source: American Community Survey, PUMS, 2011-2015

owners to make the necessary renovations that will allow them to age in place—an unlikely occurrence in the absence of proper incentives and/or government mandates. In 2011–2015, 19% of all older adult households were renter occupied (6 million) and 17% of all persons living in older adult households were in renter occupied units (11.3 million) (Figure 17).

African American older adult households constituted the third group. Research shows that the poverty rate for black older adults was more than twice as high as the poverty rate for all older adults (22.5 percent versus 9.5 percent), and it was three times as high as the poverty rate for white older adults (22.5 percent versus 7.8 percent)” (Johnson and Parnell, 2016–17, p. 14; also see HUD, 2013). Moreover, African Americans are more likely to experience disability earlier and therefore have shorter years of active life expectancy than whites (Freedman and Spillman, 2016). In 2011–2015, African Americans occupied 9.3% of all older adult households (2.9 million) and represented 11 percent of all persons living in older adult households (7.1 million) (Figure 17).

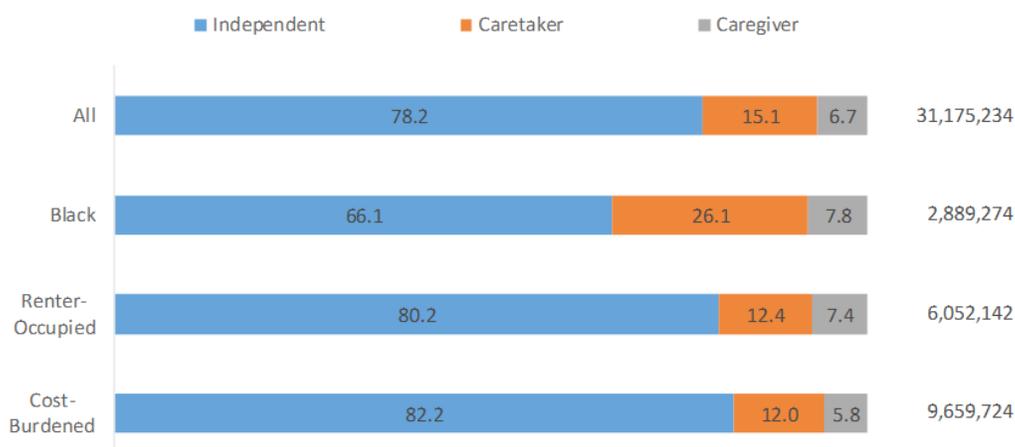
Living arrangements varied across these three subgroups. Compared to all older adult households, African American older adults in particular were far more likely to live in caretaker and caregiver households than renter and cost burdened older adult households (Figure 18). But beyond these diverse living arrangements, several other factors were likely to influence whether or not these older adults households can successfully age in place. Those factors include the age and condition of the place of residence, tenure status (i.e., whether they owned or rented the property, and if they were owners, whether the property was owned free and clear or there was an outstanding mortgage or loan on it), household income and other financial considerations that would affect their ability to afford required age-friendly renovations/upgrades.

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...the poverty rate for black older adults was more than twice as high as the poverty rate for all older adults

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**Figure 18: Groups Facing Barriers to Aging in Place by Living Arrangements, 2011–2015**

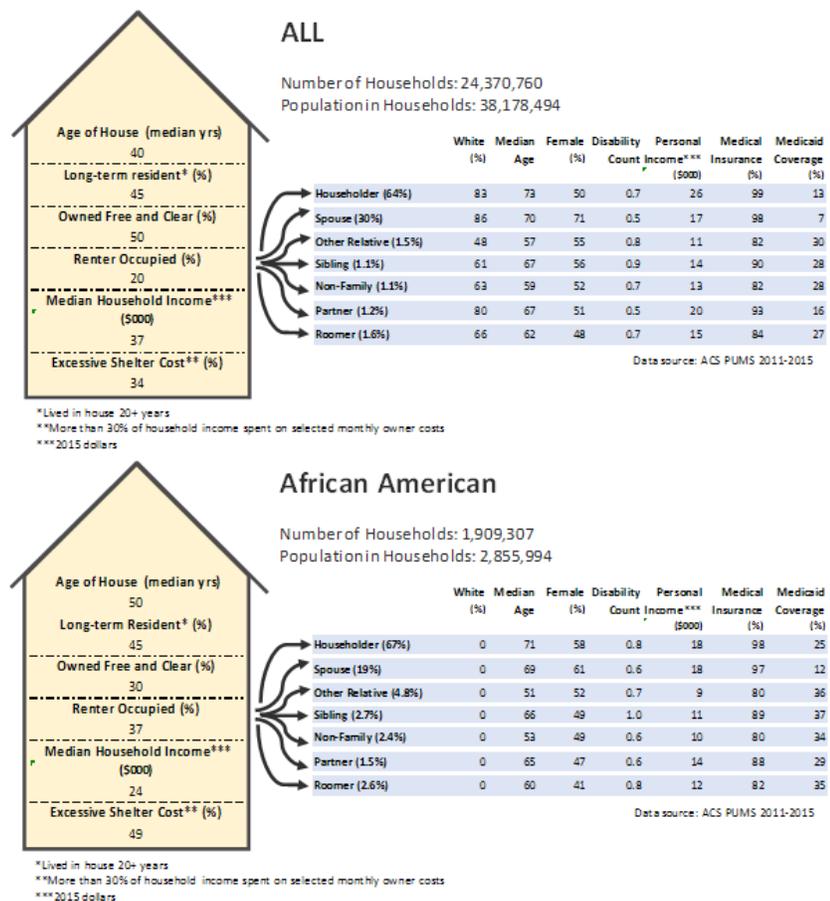


Source: American Community Survey, PUMS, 2011–2015

To highlight aging in place challenges or barriers, we extracted direct and indirect measures of these factors from housing record and linked them with socio-demographic indicators from the corresponding person record of the PUMS file. We compiled these data for all older adult households disaggregated by living arrangement (i.e., independent, caretaker, and caregiver) and for our three subgroups of older adult households—renters, cost-burdened, and African Americans—also disaggregated by living arrangement. For illustrative purposes, we profile older adult African American households involved in independent living arrangements (Figure 19), older adult renter household involved in caretaker living arrangements (Figure 20), and non-elderly cost burdened households involved in caregiver living arrangements in 2011-2015 (Figure 21).

Compared to all older adult living independently, African Americans living independently resided in dwellings that were much older (50 versus 40 years old), less likely to be owned free and clear (30% versus 50%), and more likely to be rented (37% versus 20%). The African American householder was slightly younger (median age 71 versus 73), more likely to be female (58% vs 50%), slightly more likely to live alone than with a spouse or some other individual (67% versus 64%), and had a slightly

Figure 19: Older Adult Independent Living Arrangements, 2011-2015



higher disability count than all older adults householders who lived independently (0.8 versus 0.7) . In addition, the median household income of the African American older adults living independently was much lower than the median for all older adult households living independently (\$24,000 versus \$37,000). And African American older adults living independently were far more likely than all older adults living independently to be burdened by excessive shelter cost (49% versus 34%) (Figure 19).

Comparing all older adults involved in caretaker living arrangements and caretakers who rented their dwelling units yielded similar disparities (Figure 20). Older adult caretaker householders who were renters were more likely than all older adult caretaker households to be non-white (55% versus 36%) and female (67% versus 57%). They also had higher disability counts (1.1 versus 0.8) and substantially lower median incomes (\$39,000 versus \$58,000). Given the household income disparity, older adult caretakers who were renters were much more likely than all older adult caretakers to be burdened by excessive shelter cost (48% vs 25%). In part for this reason, only 17% of those who were renters were long term residents of the current dwelling, that is, had lived in the unit for 20+ years, compared to 53% of all older adult caretaker households in 2011-2015 (Figure 20).

Figure 20: Older Adult Caretaker Living Arrangements, 2011-2015

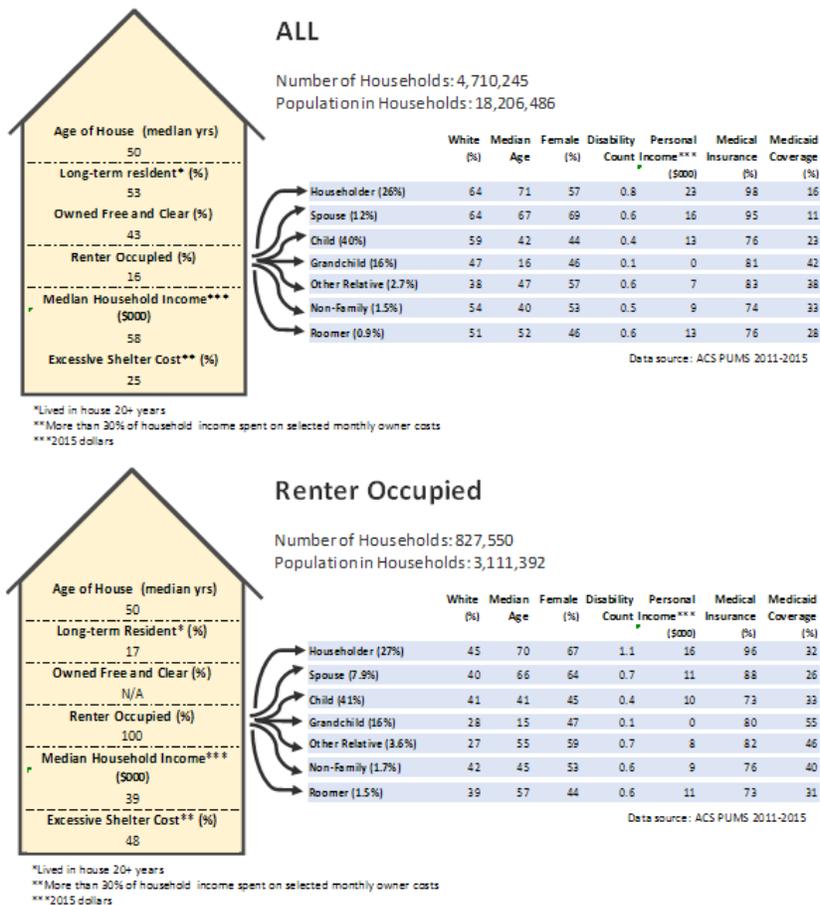
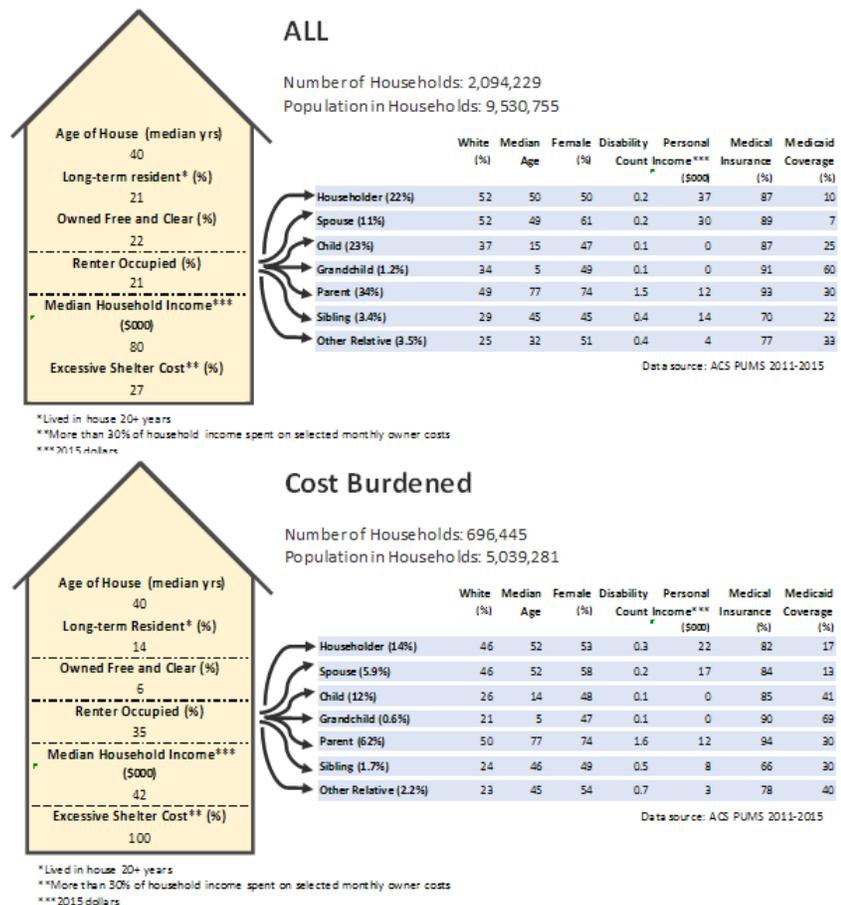


Figure 21 compares all non-elderly caregiver households with their counterparts who were cost burdened. The marked disparity in household income is especially noteworthy (\$42,000 vs \$80,00). In addition, heads of caregiver households that were cost burdened were more likely to be non-white (54% versus 48%), slightly older (52 versus 50), and slightly more likely to be female (53% versus 50%) than the heads of all caregiver households. Cost-burdened caregiver households also had a significantly higher concentration of older adult parents than caregiver households that were not experiencing excessive shelter cost (62% versus 34%).

Most of the of houses occupied by these three subgroups of older adults were built in the mid-1950s or the mid-1960s. As a consequence, the residents of these houses, especially the older adult occupants, may be at a substantial risk of exposure to life threatening environmental hazards (e.g., mold, lead-based paint, radon, asbestos, etc.) and/or accidental slips and falls that can cause serious injury or even death (Williams, 2014; Walls by Design, nd; The Real Estate Inspection Company, 2016).

Given that most of these houses were between 50 and 60 years old in 2011-2015, major structural modifications probably are required to make them age friendly—a

Figure 21: Non-Elderly Caregiver Living Arrangements, 2011-2015



cost-prohibitive undertaking for these three groups without some type of direct financial assistance (African American and cost burdened households) or proper incentives or federal/state regulatory mandates for landlords/property owners (renter households). For some, given the age and likely deteriorating structural condition of their dwellings, relocation may be the only viable option for aging in place (The Real Estate Inspection Company, 2016; Walls by Design, nd; Williams, 2014). This will be difficult, if not impossible, since a majority of these three groups of older adults have lived in their current dwellings for 20 or more years (Ball, 2011; also see Table 3).

Even for those owning their houses free and clear (African American and cost burdened), aging in place will be difficult. First, most may not be prepared to spend any money on home improvements or repairs (Ball, 2011). Second, as Figures 19, 20, and 21 show, some are supporting adult children and grandchildren who are either low or zero wage earners and either medically uninsured or reliant on means-tested governmental programs (e.g., Medicaid) targeted for major funding cuts by the Trump Administration and Congressional Republicans (Levey, 2017).<sup>4</sup> Third, given the age and condition of some of these properties, as well as stagnant or declining home values in recent years, many probably will not have adequate home equity to leverage a reverse mortgage to renovate their dwelling. Research suggest, moreover, that older adult householders in this situation may even find it difficult, if not impossible, to keep up with property taxes and insurance costs on their homes (HUD, 2013).

In short, few of these households appear to have the necessary resources to make the home modifications that will allow them to age in place. Policy prescriptions and strategies are urgently needed to prevent the likely and costly transition of these older adults to institutionalized group quarters (Rother, 2016-17).

## DISCUSSION, CONCLUSIONS, AND RECOMMENDATIONS

America is aging and will continue to do so in the foreseeable future as fertility rates remain low, as the remaining years of life of the 65+ population continue to increase, as the 81 million baby boomers continue to turn 65 at the rate of more than 8,000 per day over the next 20 years (Johnson and Parnell, 2016-17; Argentum, 2016; JCHS, 2014)). While the older adult population is predominantly non-Hispanic white today, it will become far more diverse as the nation's native born non-white and foreign born populations begin to age over the next quarter century (Johnson and Parnell, 2016-17). And as the older adult population becomes more diverse, so will living arrangements, with far more multigenerational older adult households than currently exist in the U.S.

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<sup>4</sup> Even older adults themselves are at greater risks given the proposed repeal and replacement of Obamacare. Under Trumpcare, the proposed new law, "a 64 year older earning \$26,500 a year and living in a state not seeking waivers would have to pay \$16,100 a year for coverage, nearly 10 times as much as she would under Obamacare" (The Editorial Board, 2017).

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America is aging and will continue to do so in the foreseeable future...

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Most older adults prefer to age in place, that is, in their homes and communities, and this is unlikely to change in the foreseeable future. Our challenge therefore is to figure out how to ensure that as many older adults as possible can actualize their desire to live out their lives in their home and community (Cirillo, 2017; Eisenberg, 2015). As we have shown, older adults who are African American, who are burdened by excessive housing costs, and who occupy rental properties will likely encounter the most difficulty aging in place unless direct action is undertaken to help them do so.

Several strategies should be pursued to improve the likelihood that these three groups can successfully age in place.

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Our challenge...is to figure out how to ensure that as many older adults as possible can actualize their desire to live out their lives in their home and community.

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First, following New York City's lead, the federal government should create a guide for age friendly building upgrades in the multi-family rental market (Kubey, 2016). In addition to specific recommendations that building owners can follow to make their properties more age friendly, the guide also should include information about existing federal financial incentives, including the Disabled Access Tax Credit and the Business Expenses Tax Deduction, which cover at least some of the cost of making age friendly modifications to rental properties.<sup>5</sup> The guide also should provide links to state level financial incentives.

Second, property and casualty insurance companies and their building owner clients should be encouraged to forge mutually beneficial strategic alliances to facilitate aging in place for older adult tenants. A case can be made that it is cheaper for property and casualty insurance companies to invest in modifications through their charitable foundations than to pay for costly litigation and medical expenses after an accidental slip and fall has occurred. This type of philanthrocapitalism on the part of property and casualty insurers would constitute a win-win-win for all parties involved (Bishop and Green, 2008).

Older adult tenants would benefit from a renovated, age friendly living environment. Building owners would benefit from the increased value of their properties and reduced exposure to the risks associated with accidental slips and falls as well as other environmental hazards that exist in older buildings. And property and casualty insurers would benefit from the tax break or deduction associated with their charitable investments in aging in place, the economic value-add in the insurance market place for engaging in socially responsible business practices, while simultaneously maintaining a sound and profitable business relationship with insured building owners.

Third, the federal government also should expand funding and streamline the

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<sup>5</sup> Congress should consider implementing a tax credit to facilitate aging in place for older adult homeowners (Fay, 2015).

application process for the USDA Section 504 Home Repair program which provides “grants to [rural] elderly very-low-income homeowners to remove health and safety hazards” (HAC, 2014). In expanding the program, the government should stipulate that renovations must be done by certified aging in place contractors and according to the universal design guidelines recommended by the National Homebuilders Association (HUD User, 2013a; Cook, 2016). In addition, an urban equivalent of this program should be developed. It should be designed to address the needs of elderly homeowners burdened by excessive housing costs. To scale this program, the government should leverage the capabilities and expertise of Habitat for Humanity, National Church Residences, and other nonprofits, including mega-churches, who are already engaged in efforts to provide safe housing for older adults (National Church Residences, 2017; Habitat for Humanity, 2017; Mullaney, 2016).

Fourth, since a significant number of the most vulnerable older adult households rely on Medicaid for long term supports and services, senior advocates must make every effort to block proposed cuts and lobby forcefully for increased federal funding for the program (Levey, 2017). And states that have not done so should embrace Medicaid expansion (Atkins, 2016-17; Atkins, Tumlinson, & Dawson, 2016-17), with a specific eye toward leveraging Medicaid Home and Community Based-Waivers Programs to complete home modifications that will facilitate aging in place for some of our most vulnerable older adults (HUD User, 2013b). Since Medicaid covers long-term care for many seniors, extension of aging in place will reduce these costs (Johnson and Parnell, 2016-17).

In addition, for multigenerational older adult households, states and local communities should leverage these Medicaid waiver programs to create a funding pool to be invested in compulsory education for the in-home relatives of older adults to be trained as non-medical caregivers and paid for their caregiving roles (Blumenfeld, 2014). This is likely to be a much cheaper option than institutionalized care, and it would acknowledge in a tangible way the value that unpaid caregivers contribute to society today (Burnett, 2017; Poo and Whitlatch, 2016-17; Stone, 2016-17)).

Finally, the federal government, perhaps through the CMS Innovation Center, should create an aging in place social innovation fund which would invest in social purpose business ventures that demonstrate the greatest potential or capacity for helping the most vulnerable older adults age in their homes and in their communities. Given that those most in need of aging in place assistance are predominantly older women who live alone, often in older houses that are beyond rehabilitation, priority should be given to viable business plans that propose to build clusters of affordable, age friendly tiny homes (rural communities) and tiny home villages (urban communities). The layout of the houses should be age-friendly and they should be constructed

around a community center that is designed to promote daily interaction and thereby combat the isolation, loneliness, and abuse problems that affect older adults who live alone today (Mosqueda, Hirst, and Sabatino, 2016–17). Such communities, properly designed, can help older adults age in the “right” place (Golant, 2016; Adamson, 2016).

Targeting infill sites in cities for such developments can potentially contribute to the creation of mixed income, multigenerational communities which would serve as an antidote to much of the gentrification that is currently pricing older adults out of many urban communities (Lawler, 2015; Liepetz, 2017). In rural communities and small towns, such developments would facilitate better medical and non-medical caregiving support for older adults (Stone, 2016–17).

In 2015, AARP, in collaboration with J.P. Morgan Chase as asset manager, launched a \$40 million “‘innovation fund’ to invest in technological innovations focused on improving the lives of people 50-plus” (Chow, 2015). By obligating or dedicating a specified amount of its fund to this type of initiative, AARP could play a major role in mobilizing the requisite bi-partisan Congressional support required to enact federal legislation. And once such legislation is enacted and funds are appropriated to create such a fund, the federal government should in turn use its investments to leverage additional philanthropic and corporate dollars, including existing angel investment and social venture pools, to grow the fund. Given the magnitude of the problem, dollars from all of these sources will be required to ensure that aging in a place is an option for as many of our most vulnerable older adults as possible.

In view of the strong emphasis on entrepreneurial education today, the federal government, in launching such a fund, should consider working with top U.S. business schools to vet new venture ideas—from both the twenty somethings and encore entrepreneurs. AARP has already created a strategy for how this might be done (AARP, 2017b).

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